# TOC

**Articles** ..... **23**

20.2 New Features and Enhancements ..... 23

Release at a glance ..... 23

New Features ..... 24

Automated Alerts ..... 26

Scheduled Tasks ..... 27

Additional Enhancements ..... 29

20.2 Upgrade changes ..... 45

Highlights from previous iMIS 20 versions ..... 54

How to articles ..... 57

Articles By Category ..... 57

Backdating cash and check transactions ..... 59

Backdating cash and check transactions ..... 61

Including GSTINC in online membership joins and renewals pricing ..... 63

Managing automatic batches from the Staff site ..... 67

Configuring the batch mode for staff web transactions ..... 67

Viewing and printing information about batches ..... 68

Printing contact account statements ..... 72

To print an account statements: ..... 72

Defining prorating rules ..... 73

Tips ..... 74

Rules ..... 75
Product ..... 75
Type ..... 75
Description ..... 75
Prorating Table Entries ..... 75
Base Amount ..... 76
Amt/Add'l Unit ..... 76
Future credit ..... 76
Bump date ..... 76
Future credit and bump date examples ..... 76
Managing chapters ..... 79
Adding chapter members ..... 80
Assigning the Chapter Administrator role ..... 81
Contacting chapter members ..... 82
Searching for chapter members ..... 83
Managing chapters ..... 84
Adding chapter members ..... 84
Assigning the Chapter Administrator role ..... 85
Contacting chapter members ..... 86
Searching for chapter members ..... 87
Merging contacts ..... 88
To merge individual contacts, do the following: ..... 90

Managing committees ..... 94
Automatic membership renewals ..... 103
Automated membership renewals ..... 105
Automatic membership renewals ..... 108
Automated membership renewals ..... 110
Backdating cash and check transactions ..... 114
Configuring billing options ..... 115
Billing Interval ..... 117
Start Date Control ..... 118
Accounting Method ..... 119
Billing Time ..... 120
Prorating ..... 120
Miscellaneous ..... 121
Balances ..... 121
Paid Thru Date Update ..... 122
AR Payment Application ..... 122
Billing Contact ..... 123
Defining prorating rules ..... 123
Tips ..... 124
Rules ..... 125
Product ..... 125
Type ..... 125

Description ..... 125
Prorating Table Entries ..... 125
Base Amount ..... 125
Amt/Add'l Unit ..... 125
Future credit ..... 125
Bump date ..... 126
Future credit and bump date examples ..... 126
Recurring donations ..... 129
Recurring donations ..... 130
Adding the communication content record to a sitemap ..... 138
Adding the communication content record to a sitemap ..... 140
Adding the communication query to a content record ..... 141
Configuring and sending email ..... 142
Creating a list of contacts to email ..... 143
Creating an email ..... 144
Creating email communication templates ..... 152
Displaying automated alerts ..... 159
Disabling and editing out-of-the-box alerts ..... 160
Creating automated alerts ..... 162
Managing communication preferences ..... 168
Setting the communication type ..... 169
Setting the Communication preference user messages ..... 170

Changing contact Communication preferences ..... 170
Viewing a log of communication preferences selections ..... 170
Tracking email interactions with contacts ..... 171
Sending scheduled emails ..... 172
Using out-of-the box scheduled tasks ..... 173
Creating a scheduled email task ..... 174
Sending scheduled reports ..... 177
Creating a communication with an attached report ..... 178
Creating scheduled report task ..... 178
Creating online donation pages ..... 181
To build a donation page ..... 183
Creating online donation pages ..... 188
To build a donation page ..... 190
Importing donor and donation data ..... 195
Follow the following steps to create your donor and donation data file: ..... 198
Recurring donations ..... 201
Recurring donations ..... 202
Backdating cash and check transactions ..... 211
Backdating cash and check transactions ..... 213
Setting up Join Now ..... 215
Setting up Join Now ..... 228
Running contact reports ..... 240

Running contact reports ..... 246
SSRS reports ..... 252
Modifying an existing SSRS report ..... 253
To modify an existing SSRS report: ..... 253
Printing contact account statements ..... 254
To print an account statements: ..... 254
Using iMIS Translation ..... 255
Using iMIS Translation ..... 263
Accessing the iMIS Advanced Accounting Console from a Web Browser ..... 270
Configuring the Server ..... 270
Configuring the Client ..... 276
Accessing the iMIS Advanced Accounting Console from a Web Browser ..... 280
Configuring the Server ..... 280
Configuring the Client ..... 286
Creating a custom theme ..... 290
Creating an iMIS Application Shortcut with Google Chrome ..... 293
Enabling CAPTCHA Security ..... 293
Implementing advanced website navigation features ..... 294
Signing in to your website using a social media account ..... 306
Tailoring the staff account page ..... 313
Tailoring the Staff site ..... 314
Using Quick Start Sites ..... 319

Creating your own website by copying a Quick Start Site ..... 324
Using sample themes and Master Pages ..... 327
UltraWave and Universal Design ..... 345
Working with website themes ..... 345
Using sitemaps ..... 353
Site Builder ..... 353
Sitemaps and navigation items ..... 354
Configuration options: sitemaps (navigation items) ..... 357
Tips ..... 364
Defining sitemaps and navigation items ..... 364
Modifying menus and task list items ..... 367
Using process automation ..... 370
Using the Content Collection Organizer ..... 370
Displaying content pages in tab format ..... 370
Using the Content Collection Organizer to show or hide tabs ..... 371
Using the Content Collection Organizer as a wizard ..... 371
Creating an account using the Content Collection Organizer as a wizard ..... 374
On Behalf Of: Customer service mode ..... 375
Using the Content Browser utility ..... 379
Properties tabs ..... 381
Content tabs ..... 382
Delete ..... 387

Refresh ..... 388
URL List ..... 388
Shortcuts ..... 389
Tags List ..... 390
Content Code List ..... 391
iPart List ..... 393
Understanding iMIS Features ..... 394
About Analytics ..... 395
About Analytics ..... 408
Analytics usage ..... 421
Analytics implementation ..... 425
Using iMIS Certification ..... 447
How Certification Works in iMIS ..... 447
Using iMIS Certification ..... 449
How Certification Works in iMIS ..... 450
Creating a certification program ..... 452
Defining Certification communication ..... 465
Managing enrollment ..... 465
Approving completions ..... 472
Canceling certification programs ..... 473
Commerce ..... 474
Commerce ..... 475

Setting up an Order Confirmation template ..... 477
Adding and Editing Products ..... 481
Creating promotion codes ..... 485
Making a purchase ..... 488
Overriding a price ..... 491
Billing for membership fees ..... 492
Paying open invoices ..... 494
Creating communications with iMIS ..... 495
Creating communications with iMIS ..... 496
Creating a list of contacts to email ..... 497
Adding the communication query to a content record or site map ..... 498
Sending an email to a list of contacts ..... 499
Sending an email to an individual contact ..... 505
Working with communication templates ..... 507
Customizing the email recipient list ..... 511
Add an attachment to a communication template ..... 512
Advanced Email Marketing ..... 514
Community ..... 517
Community ..... 519
Working with Contacts ..... 521
Viewing company participant lists ..... 522
Community Essentials ..... 523

Communities Administration ..... 534
Communities Implementation ..... 547
Communities Design ..... 557
Understanding Marketing Suite ..... 565
Campaign Management ..... 566
Setting up Marketing Suite ..... 571
Setting up Basic Campaigns ..... 579
What must be done before you can start? ..... 580
Putting it all together ..... 580
Getting Started with Complex Campaigns ..... 612
Communications and Reporting ..... 648
Marketing Concepts and Terms ..... 651
Process Manager ..... 666
Guided Performance Scorecard ..... 724
Updating the Guided Performance Scorecard ..... 731
Continuum – Reporting ..... 733
Quick facts: SSRS reports ..... 735
What do I need to license or buy? ..... 736
How do I run reports in iMIS? ..... 736
Creating SSRS reports ..... 736
Customizing SSRS reports ..... 742
Changing the default layout for SSRS reports ..... 742

Getting report layouts from iMIS ..... 746
Setting up SQL Server tools to edit iMIS reports ..... 748
Code for the ReportTitle parameter ..... 750
Tutorial: Customizing a report template ..... 752
Tutorial: Adding your own SSRS report template to iMIS ..... 763
Guided Performance Scorecard ..... 765
Updating the Guided Performance Scorecard ..... 772
Contact reports ..... 774
Fundraising reports ..... 776
Event reports ..... 777
Commerce reports ..... 779
Certification reports ..... 780
Sample reports ..... 782
Report title: Incomplete Stage Report ..... 790
Report title: Project Forecast ..... 794
Understanding reports and output processes ..... 799
Process ..... 800
Asynchronous Process ..... 801
Bound Query ..... 801
Driver Business Object ..... 801
Object ..... 801
Output Device ..... 802

Output Format ..... 802
Output Process ..... 802
Parameter ..... 802
Process Definition ..... 802
Synchronous Process ..... 802
Template ..... 802
Tips for creating output processes ..... 802
Before you begin ..... 803
Process ..... 803
Location of queries in the Document System ..... 803
Query source for Marketing output processes ..... 803
Query source for action plans in Process Mgr ..... 804
Query source for other applications ..... 804
Defining a Microsoft Word mail merge output process ..... 805
Before you begin ..... 805
Defining an email merge output process for email notifications ..... 806
Notes ..... 807
Before you begin ..... 807
Defining a project process output ..... 809
Setting user permissions for an output process ..... 809
Email merges ..... 809
MS Word merges ..... 810

Process ..... 811
Crystal Report Templates ..... 812
Creating a site ..... 812
Creating a site ..... 815
Importing content from a staging server ..... 818
Implementing a mobile site ..... 824
Styling your website's primary navigation ..... 825
Creating custom themes and master pages ..... 830
Controlling sitemap behavior ..... 843
Tracking your site with Google Analytics ..... 849
Synchronizing content on multiple servers ..... 849
Improving performance for remote servers ..... 850
Complying with the EU's Electronic Privacy Directive ..... 853
Responsive Web Design ..... 857
Responsive layouts ..... 860
Responsive content ..... 861
Responsive navigation ..... 872
Website concepts ..... 875
iMIS Database Upgrader: DB Upgrader ..... 883
iMIS Database Upgrader: DB Upgrader ..... 887
iMIS Database Maintenance: DB Maintenance ..... 891
ANSI Conversion Utility - ConvertTableToANSI ..... 913

Query Browser utility ..... 915
Using the Workbook Converter ..... 925
Multi-Instance Utility ..... 938
Before you begin ..... 939
Configuring content items ..... 947
Configuring content items ..... 952
Creating Dynamic Content Items ..... 957
What are Dynamic Content Items? ..... 957
Where can I find and use Dynamic Content Items? ..... 958
Dynamic content item examples ..... 960
Events dashboard in the Staff site ..... 1014
Event-Specific Console ..... 1015
Event Content Items ..... 1015
Creating an Event ..... 1015
Searching for Events ..... 1016
Registering for Events ..... 1016
Events dashboard in the Staff site ..... 1016
Event-Specific Console ..... 1017
Event Content Items ..... 1017
Creating an Event ..... 1017
Searching for Events ..... 1017
Registering for Events ..... 1018

Event-specific console ..... 1018
Reports ..... 1018
Creating an event ..... 1024
Registering for events ..... 1038
Searching for events ..... 1053
Event content items ..... 1056
Fundraising ..... 1060
Overview ..... 1060
Fundraising ..... 1061
Overview ..... 1061
Enter Multiple Gifts ..... 1062
Moves Manager ..... 1065
Friendraising ..... 1066
Setting up the default member type of imported Friendraising contacts ..... 1071
Configuring the Friendraising pages ..... 1071
Mapping events and gifts ..... 1076
Gift Aid (UK) ..... 1082
How Gift Aid works ..... 1082
Changes to Gift Aid beginning April 6th, 2008 ..... 1082
Recording Gift Aid declarations ..... 1083
Fields ..... 1085
Fields ..... 1086

Standing Orders (UK) ..... 1088
Barclays Standard Format Layout 1, 106 character data record ..... 1091
Sample Standing Order payment file ..... 1093
Taxation ..... 1097
Taxation ..... 1099
Canadian Taxation (GST and HST) ..... 1100
European Taxation (VAT) ..... 1114
Intelligent Query Architect (IQA) ..... 1147
Administering IQA ..... 1147
Getting Started with IQA ..... 1147
Accessing IQA ..... 1147
Adding dynamic filters to queries ..... 1148
Building a library of queries ..... 1148
Best practices for building your library ..... 1148
Queries in the Document System ..... 1149
Creating a custom folder in the Document System ..... 1149
Defining displays for users ..... 1149
Defining queries ..... 1150
Editing query-generated lists in iMIS ..... 1157
Finding customer records with IQA ..... 1158
Developing filters ..... 1159
Defining a filter property with several values ..... 1162

Hierarchical grid display ..... 1162
Intelligent Query Architect (IQA) ..... 1164
Linking IQA results ..... 1165
Query examples ..... 1170
Usin g Basic mode ..... 1170
Using Advanced mode ..... 1175
Reporting in IQA ..... 1182
Report from every query ..... 1184
Auto-formatting ..... 1184
Simple saving ..... 1184
Subtotaling ..... 1184
Customizable layout ..... 1184
Summing amounts in reports ..... 1188
Requirements ..... 1189
Understanding IQA ..... 1189
Outputs ..... 1191
Getting Started with IQA ..... 1193
Accessing IQA ..... 1193
Payments in iMIS ..... 1193
Payments in iMIS ..... 1193
PayPal Express Checkout Integration ..... 1194
Authorization Gateways ..... 1201

Authorizing Credit Cards in iMIS ..... 1234
Installing iMIS DataVault ..... 1264
Managing websites ..... 1274
Website appearance and structure definition ..... 1277
Configuration options: websites ..... 1277
Tips ..... 1277
To set up SSL in a RiSE website ..... 1280
Managing websites ..... 1285
Website appearance and structure definition ..... 1288
Configuration options: websites ..... 1288
Tips ..... 1288
To set up SSL in a RiSE website ..... 1291
Defining shortcuts ..... 1296
For Websites ..... 1298
Shortcut ..... 1298
URL or Content Record ..... 1298
URL Parameter ..... 1298
Description ..... 1298
Page Builder ..... 1299
Content authoring ..... 1301
Defining content folders ..... 1320
Enabling workflow for content authoring ..... 1353

Disabling workflow for content authoring ..... 1355
Creating custom layouts ..... 1355
Managing images ..... 1361
Tagging ..... 1363
Searching for Tagged Items ..... 1363
Defining tags ..... 1364
Defining tagged list formats ..... 1368
Troubleshooting ..... 1369
Maintenance ..... 1375
Defining publishing servers ..... 1375
Concept: publishing servers versus publishing services ..... 1379
Configuration options: publishing servers ..... 1380
Defining user-defined fields ..... 1382
Configuration options: content types ..... 1386
Defining content authority groups ..... 1391
Creating content authority groups based on iMIS security groups ..... 1392
Troubleshooting ..... 1393
Document system ..... 1402
Task Viewer ..... 1417
Workflow ..... 1417
Settings ..... 1422
Settings ..... 1424

Security administration ..... 1425
Managing organization profile information and member list ..... 1432
Managing organization member information ..... 1433
Bill event registrations ..... 1433
Managing billing for the organization ..... 1433
Tips and troubleshooting ..... 1449
Conflicts from shared Windows logins ..... 1450
Authorization persistence: web clients ..... 1450
Authorization changes: locating and disabling ..... 1450
Organization settings ..... 1450
Contacts ..... 1451
Communities ..... 1461
Commerce ..... 1464
RiSE settings ..... 1467
Utilities ..... 1478
Website maintenance ..... 1481
Website maintenance ..... 1482
Modifying site themes ..... 1483
Changing Telerik skins ..... 1484
Changing zone properties ..... 1486
Easy Edit Overview ..... 1487
Editing a content record with Easy Edit ..... 1489

Installing iMIS ..... 1491
Before you begin your installation ..... 1493
Networks ..... 1493
Servers ..... 1494
System Requirements ..... 1498
Minimum hardware (all) ..... 1498
Operating systems ..... 1499
Databases ..... 1499
Appservers ..... 1499
Systems running iMIS Advanced Accounting Console ..... 1499
Browsers ..... 1500
Report writing ..... 1500
Additional components ..... 1500
Install additional components ..... 1501
Prepare all servers and workstations ..... 1504
Install iMIS ..... 1506
Configure iMIS (EmptyDB) ..... 1518
Configure SQL, IIS, SSL and services ..... 1530
Configuring iMIS for SQL Server Sessions ..... 1530
Configure the iMIS SOA web service ..... 1540
Go live with your website ..... 1550
iMIS Maintenance ..... 1550

Reference information ..... 1556
Troubleshoot iMIS installations and upgrades ..... 1566
Upgrading iMIS ..... 1583
Before you begin your upgrade ..... 1584
Upgrade iMIS ..... 1591
Completing post-upgrade tasks ..... 1598
Upgrading existing websites ..... 1606
Upgrading iMIS ..... 1613
Before you begin your upgrade ..... 1615
Upgrade iMIS ..... 1621
Completing post-upgrade tasks ..... 1629
Upgrading existing websites ..... 1636
**Your search for returned result(s).** ..... **1644**

# Articles

## 20.2 New Features and Enhancements

Advanced Solutions International, Inc. is proud to announce the production release of iMIS 20.2. This release adds to the iMIS 20 release, so you can install it easily if you are already using iMIS 20. You can also upgrade directly from iMIS 15.1.3.

With iMIS 20, we introduced the Engagement Management System (EMS) that helps organizations to better engage members, donors, and other constituents – as well as staff – anytime, anywhere, and from any device. It includes constituent management, commerce management, member self-service, online fundraising, social engagement, private communities, and mobile access in one seamless cloud-based system.

Constituents — as well as staff — can access the complete system from a web browser. Plus, iMIS 20 has the flexibility to work with an existing Content Management System (CMS) or — for many organizations — the power to manage their entire website. iMIS 20 eliminates costly integration efforts, enables you to gather better constituent intelligence, and helps you make smarter business decisions.

### Release at a glance

For this release, we focused on enhancing your organization's ability to engage with your members, donors, and other constituents and to measure their interactions with your organization. The release includes enhancements that were made across all of iMIS, with particular attention to reaching your constituents globally with iMIS Translation, providing a Certification self-service feature, and viewing important information with enhanced dashboards. All features and enhancements are focused on improving the iMIS experience.

> **Note:** Additional licensing might be required for the following new and enhanced features. Contact your AiSP or ASI for more information.

The following new features are included in the iMIS 20.2 release:

- iMIS Certification for tracking a constituent's certification progress (*license required*).
- iMIS Translation for reaching your members and donors globally with a translated web-site (*license required*).
- Process Automation for displaying automated alerts and sending scheduled emails and reports (*license required for customization*).
- Responsive web design for displaying your website on any device. A new Responsive Design theme and three new responsive Quick Start Sites are included in this release.
- Engagement metrics for measuring your constituents' engagement with your organ-ization.
- Contact merge for merging duplicate records.
- Performance and stability improvements for a better user experience.

The following improved and enhanced features are included in the iMIS 20.2 release:

- iMIS Communication: Template management, deliverability, opt-in/opt-out functionality (*license required for selected features*).
- Social engagement: Sign in using Facebook, contact social media links.
- Relationship management: New Committee Administrator and Chapter Administrator roles (*license required for selected features*).
- Continuum: Dashboard chart enhancements, new reports.
- Website design and management: Manage links and data panels, grid system for lay-outs.
- Events: Specify date range for online registrations and search results, add previously registered guests.
- Fundraising: Adjust recurring payments, import donation data.
- Commerce: Adjust transaction date, define Fair Market Value, TNSPay gateway.
- Staff productivity and security: Edit and save changes to Staff site navigation, new secur-ity settings.

## New Features

### Certification

**Note:** In order to use Certification, you must have a license key. Contact your AiSP or ASI for more information.

IMIS Certification is a highly organized and integrated tool for managing your organization's certification programs. iMIS Certification assists your organization to give credits to enrollees for activities or achievements defined by your organization.

iMIS Certification is a self-service feature that gives your website visitors the ability to:

- Stay informed and up-to-date with training and certification programs.
- Manage and view their certification progress.
- Stay engaged with your organization and your website.

IMIS Certification allows your staff to:

- Define and manage a certification program.
- Specify program requirements.
- Provide various ways to complete certification requirements.
- Link offerings to iMIS products and events or other web content.

### Translation

**Note:** In order to use Translation, you must have a license key. Contact your AiSP or ASI for more information.

With iMIS Translation, your organization can transform your online presence to reach and engage with your members and donors around the world. You can increase brand

awareness, membership growth, online donations, and revenue opportunities by engaging with potential users in their language. With a translated website, users can simply select their preferred language and your iMIS website is automatically presented in a friendly, familiar and engaging way.

iMIS includes translated versions (dictionaries) for the following cultures (languages):

- Spanish
- Dutch
- French

The following items in iMIS are translated:

- Labels
- Prompts
- Navigation links
- Titles
- Tab names
- Column and row headings and identifiers
- Drop-down menu items
- ALT-text for images

## Process Automation: Automated Alerts and Scheduled Tasks

> **Note:** In order to customize Process Automation, you must have a license key. Contact your AiSP or ASI for more information.

### Automated Alerts

You can automatically display alerts to your website users regarding important information, such as membership expiration, dona-

tion opportunities, and upcoming events. iMIS provides you with the ability to configure the look and wording of the alerts and to control where and to whom the alerts display.

The following alert tasks are included:

- **Membership expires soon alert**
- **Expired membership alert**
- **Event reminder alert**
- **Join now alert**
- **Missing primary email alert**
- **VIP alert**
- **Major donor alert**

  Two sample alert sets - **Member alerts** and **Staff account page alerts** - are provided. If you do not want the sample alerts to display, remove them from the alert sets after a new install or an upgrade.

#### Scheduled Tasks

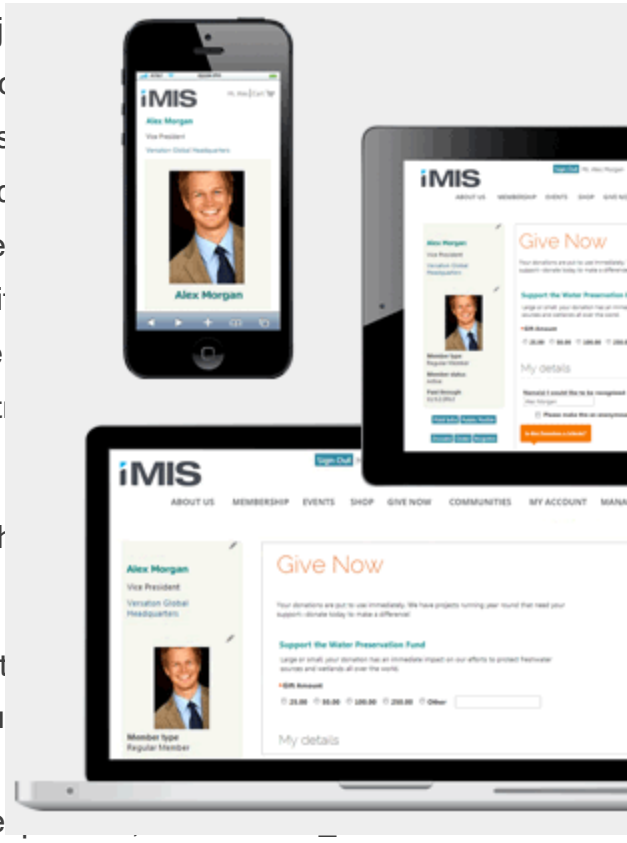
Scheduled tasks allow you to automatically send emails at regular intervals, starting and ending on the dates and times that you specify. For example, you can create a task that sends welcome emails to your newest members on the day and time specified.

In addition, you can automatically send up-to-date reports on a specified schedule. The reports are sent as PDF attachments to scheduled emails. For example, you can create a task that regularly sends an event

registration report to your organization's event managers once per week.

## Responsive Web Design

A website designed to be responsive will automatically adj
used. By creating a responsive website, there is no need t
standard computer screens and for mobile devices. On res
items change to icons and content can be configured to hi
The new Cities_Responsive master page/template and ne
(Austin, London, and Toronto) allow you to create a beauti
your website visitors and staff can access from any device
Donor, and Annual Conference Quick Start Sites demonst
design.




The following responsive design features are included in t

- A new Member Responsive Quick Start Site
- Redesigned Donor and Annual Conference Quick Start Sit
- Configurable content items that display correctly on variou
- A new Cities Responsive master page and template
- New responsive themes (Austin_Responsive, London_Re
  Responsive)

## Engagement Metrics

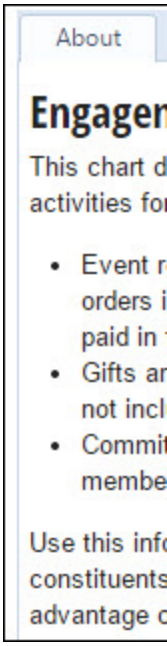
The iMIS 20 Engagement Management System (EMS) helps you better engage your constituents anytime, anywhere, from any device. The iMIS 20.2 release provides your staff with a visual display of the level of engagement of any contact with the new Engagement Metrics display on the Staff Account page.

By using two existing content items (Content HTML and Query Chart Viewer), you can see at a glance the engagement activities of the selected contact. Default criteria are used by the out-of-the-box display and are stored in a system-protected folder. This means they are overwritten upon upgrade. If you choose to change the underlying query, the display, or the amounts displayed, save the content to the Shared Content folder, make your changes, and modify the navigation on your staff site to display your

desired metrics.

The following criteria are used for the default display:

- Each paid-in-full event registration is counted as one item.
- Each paid-in-full commerce order is counted as one item.
- Each individual gift is counted as one item. Pledges are not included.
- Each membership in a committee is counted as one item.
- The totals are calculated and displayed for the 12 months up to today's date and the previous 12 months.




### Contact Merge

iMIS 20.2 offers the ability for Staff users to merge data from two separate, duplicate contact records into one single contact record. Personal, financial, and historical data from both records is merged to a single contact record and all duplicated information is deleted.

## Additional Enhancements

### Communication Suite

The following enhancements to the iMIS Communication Suite are included in the iMIS 20.2 release:

Opt in or opt out of specific types of emails

Staff users can define the type of communications your organization will send. Recipients can opt in or opt out of different email types. This allows your organization to comply with spam legislation.

Staff users can include a communications preference link when creating emails and email recipients can use this link to manage their subscription preferences directly from emails they receive from your organization without logging into the site. In addition, web-site visitors can manage their preferences from their account page.

Staff users can also run the Communication Preferences Log query to view contacts' updates to their communication opt-in and opt-out preferences.

View email history

The new Interaction Log content item displays a list of email communications sent to a contact. By default, the Interaction Log is included on the Staff Account page on the **History** tab.

Insert repeating data in email communications

With the iMIS 20.2 release, you can add repeating data, such as merge fields from additional data sources, to email communications. For example, you may want to insert information in the order confirmation email about each product that was ordered, so you would repeat merge fields from an associated data source query that retrieves order line information.

Manage communication templates

You can quickly create email templates or use one of the sample templates available on the Staff site (**Community > Manage communication templates > Templates > Samples**). In addition, you can:

- Select the query to retrieve the contact recipient list while working in the email editor.
- Associate additional query data sources with an email template. You can insert merge fields from these data sources into the template.
- **Cc** and **Bcc** email recipients. For example, you can copy staff users on emails sent form your organization, such as order and event confirmations.

- Tailor a default email template that is automatically used whenever a new communication is composed.
  The recipient query, additional data sources, and **Cc** and **Bcc** recipients are saved with the email template.

  A number of interface improvements were made in the email editor, including a new **Save** button and button label changes.

  Some templates in the **Samples** folder (**Event Reminder**, **Event Thank You**, and **Order Confirmation**) require specialized data in the recipient data source if opened directly. For more information, see Creating Email Communication Templates.

  Tailor Order Confirmation emails
  Staff users can tailor the email that is sent when an online order or donation is submitted. A sample communication template for Order Confirmation is provided in this release. To take advantage of this feature, set the system setting to use the file path to the sample template or to your edited Order Confirmation template.

  Create and save recipient queries efficiently
  To assist you in creating recipient list queries for email templates, you can create a new IQA query directly from **Community > Manage communication templates** in the Staff site.

  In addition, a new folder that you can use to save recipient list queries has been added to the Document System. It is located at **$/Common/Communications/Queries**. When you select a new recipient list query in the email editor, the Document Browser automatically opens this folder.

  Deliver mass emails efficiently
  The new Advanced Email Marketing feature gives you powerful deliverability for mass emails. Staff users can set up an account and send large quantities of emails without affecting the performance of your iMIS server.

**Note:** In order to use Advanced Email Marketing, you must have a license key. Contact your AiSP or ASI for more information.

## Social Engagement

### Sign in using Facebook

After a Staff user completes a simple setup procedure on the Staff site, visitors can sign in to your website using their Facebook credentials. Existing iMIS accounts are linked to the Facebook accounts; new users automatically create iMIS accounts. A user can even choose to use their Facebook profile picture as their profile picture on your website. Users have the option to disconnect their iMIS account from their Facebook account at any time.

If desired, you can configure iMIS to prompt users to link their iMIS and Facebook accounts and to prompt users who create a new account during the linking process to enter additional information in a Contact Account Creator content item. Eliminating the need for users to keep track of multiple user names and passwords will result in more visits to the essential content on your website.

### View contact social profile links

The new Social Profile List Creator content item displays social network profiles for a contact as an icon link list. Clicking on the contact's social network icon will open the contact's profile page for that network in another browser window. By default, the Social Profile List Creator is included on the Staff Account page on the **About** tab, the Member Account page on the **About Me** tab, and the Public Profile.

## Relationship Management

### Assign Chapter Administrator role

The new Chapter Administrator role enables chapter members to perform many of the functions that were previously limited to Staff users. Chapter Administrators can view the chapter roster, edit any chapter member's profile, pay dues on behalf of chapter members, and assign or remove the Chapter Administrator role to an existing chapter member.

Chapter members can access chapters directly from the home page in the **Member** Quick Start Site or from the **Participation** tab on their Account page.

> **Note:** In order to use Chapter Administrator, you must have a license key. Contact your AiSP or ASI for more information.

Assign Committee Administrator role

The new Committee Administrator role enables committee members to perform many of the functions that were previously limited to Staff users. Committee Administrators can view the committee roster and assign or remove the Committee Administrator role to an existing committee member.

Committee members can access committees directly from the home page in the **Member** Quick Start Site or from the **Participation** tab on their Account page.

Assign Company Administrator role to any contact

A Staff user can assign a Company Administrator role to contacts who are not members of the selected organization. Contacts can be Company Administrators for more than one organization.

Change voluntary contribution amounts

Members can now edit the amount of their voluntary contributions when joining or renewing online. They can select the voluntary contribution items they want to support and specify the exact amount of their contributions.

View list details

For displays using the Group List Editor content item, you can expand or collapse group listings to view details. For example, on a committee page, the Group List Editor lists all of the committee members. You can expand each member to display all their other committee and group memberships and can further drill down to view the other members of those committees and groups.

When selected, the new Allow expanding lists configuration option on the Group List Editor content item provides a nested, expandable group list. When deselected, a flat list of groups or group members displays.

Address Mapper displays preferred address purpose

The Address Mapper includes a drop-down list displaying preferred addresses or address purposes. The selected address purpose determines which address is shown.

**Continuum: Reports and Dashboards**

View engagement information graphically

The Staff site includes dashboards that provide a quick view of important information about your contacts and engagement goals. Each chart is query-based and utilizes HTML 5 so that the information is rendered quickly. New chart options and skins give you more flexibility to present your data.

View Event registration reports

Two new reports have been added to the Event-specific console on the Staff site. The **Registration Option Registrants** report shows a list of all the participants who have signed up for each registration option. The **Program Item Registrants** report shows a list of all participants who have signed up for each program session. These reports can be printed in a PDF format or exported to an Excel spreadsheet.

Display chart data with new options

The charts you can use on dashboards and throughout iMIS are more dynamic, more appealing, and provide specific drill-down capability to isolate measures in the chart. A new option allows related data to be stacked on the same data-point bar. These options help staff users compare yearly sales or meeting attendance year-to-year. The following configuration options have been added to the Query Chart Viewer content item:

- Series data column
- Series data format
- Enable stacked series
- Chart series position
- Enable Tooltips
- Display chart labels

Refresh and update Guided Performance Scorecard statistics

Staff users can refresh the Guided Performance Scorecard to update the values for a past year's actual performance as well as add a new year to the report.

Staff users can also update the Guided Performance Scorecard, adding yearly association goals and industry standards, as well as modifying the calculations used to generate the values in the Guided Performance Scorecard.

Print contact mailing labels from the Staff site

You can print contact mailing labels directly from the Staff site using two new contact reports. The 2 Up Labels.rdl report prints labels on letter-size (8.5 x 11 inches) Avery 5162 or 5262 stock. The 2 Up Labels A4.rdl report prints labels on A4-size (210 x 297 mm) Avery L7162 stock. To access these reports, go to the Staff site and select **Continuum > Contact reports**.

Export SSRS reports as Excel spreadsheets

Staff users can now run SSRS reports directly from the Document Browser and export the reports as Excel spreadsheets.

Create and edit SSRS reports with additional versions of BIDS

SQL Server Reporting Services (SSRS) reports in iMIS are now compatible with all versions of Business Intelligence Development Studio (BIDS) that are installed with SQL Server versions supported by iMIS. iMIS supports Microsoft SQL Server and Express Edition 2012 SP1 and Microsoft SQL Server and Express Edition 2008 SP3 and 2008 R2 SP2 (32-bit and 64-bit).

**Website design and management**

Search for people and organizations from main search

Staff users can now search for people and organizations from a single location: the main search.

Limit product and event search by date

Staff users can define a date and time range to display events and products to the public in search results. Staff users can still view inactive events and products in search results by selecting the new **Include inactive results** checkbox.

Include attachments in search results

PDF, TXT, RTF, DOC/DOCX or HTML files that are attached to Community posts display in search results as links to the parent document.

Manage website links

You can link to iMIS content or shortcuts in the Document System from the HTML editor.

The new **URL List** button in the Content Browser utility provides the ability to review all of the URLs referenced by clickable links in a Content HTML content item for any content. This allows a user to see all the content that references a specific URL and click to view the content for details.

Specify a redirect when using Content Collection Organizer in wizard mode

Staff users can define the **Finish** button in a Content Collection Organizer wizard to redirect a user to specific content in iMIS. By defining the behavior of the **Finish** button, you can direct a customer's path through content and websites.

Customize the sign in failure messages

Your website can be configured to display any message you like when a website visitor fails to sign in. A new configuration option in the Contact Sign In content item allows you to customize the message that appears when a website visitors sign-in information is not correct.

Edit content efficiently

Enhanced styling in the Content Designer provides a cleaner look and feel. The following enhancements are included in the iMIS 20.2 release:

- You can minimize the panel containing the definition fields at the top, expanding your working area.
- You have the flexibility to resize, expand, or collapse the left navigation pane to create more space for working with content.
- You have the flexibility to resize, expand, or collapse the summary pane used in Intelligent Query Architect, the Document System and the Manage Content explorer.

Import custom files formats

A new configuration option in the File Importer for Web Services content item displays the available import modules instead of file types at run time.

Use a grid system for website layouts

The grid system in iMIS has been enhanced to include the Bootstrap grid framework to allow for more modern and complex layouts. Up to 12 columns with simple nesting ability are now available if needed, increasing your ability to provide attractive, appropriate websites for your users.

Learn about iMIS forms styles

The Style Guide in the iMIS **Member**, **Member Responsive**, and **Donor** Quick Start Sites includes a **Forms** page that demonstrates HTML elements and CSS classes commonly used in iMIS forms. If you build content items that contain forms, you can use this page as a reference and learning tool. See **Manage > Style Guide > Forms** to access this helpful guide.

### Events

Add previously registered guests

When registering a guest for an event, a user can select a guest they registered for a previous event or can add a new guest. When a new guest is added using **Add a guest**, a new relationship is created between the registrant and the guest. This allows the new contact to be selected as a guest by that registrant for future events.

Define a customer type for event guests

New system settings provide the ability to define the customer type assigned to guests who register for events. This helps to identify guests and tailor information for them.

Specify date ranges for online event registrations

Staff users can specify a date and time range to allow website visitors to register for an event. Staff users and system administrators can register themselves and other contacts at any time, regardless of the date range.

Events listed on the Event Calendar support these date ranges with color-coding:

- Green indicates that the event is visible to all users and open for registration.
- Yellow indicates that the event is visible to all users but not open for registration.

- Orange indicates that the event is visible only to staff users.

Specify date ranges for event search results

Staff users can define a date and time range to display events to the public in search results and in the Event Calendar. Staff users can still view inactive events in search results by selecting the new **Include inactive results** checkbox.

Set a default sort order for event program items

When creating an event, Staff users can now specify a default sort order for program items listed in the event showcase. They can set the default to display all program items or to sort by day or track. Website users can still change the sort order when viewing the event.

## Fundraising

Adjust automatic recurring payments

Staff users can:

- Access automatic recurring payments.
- Adjust automatic recurring donations.
- Adjust automatic membership renewal.

Staff users can cancel recurring payments or reactivate previously canceled recurring payments.

Send thank you messages for donations

The Donation Thank You Page in the Donor Quick Start Site has been updated to automatically send an email message to donors. A new content item, Confirmation Display, automatically sends editable thank you emails to donors.

Define Fair Market Value for an event or product

The new Adding and editing products in the Item Creator content item allows Staff users to define Fair Market Value for an event or product. This gives donors a receipt for tax purposes.

Import donation data

The new Import donations feature allows you to import data collected outside of iMIS, such as donations collected by volunteers.

## Commerce

### View, print, and pay open invoices online

The new **Open Invoice List Display** content item can be configured to allow logged-in users to pay standard invoices from the **Open Invoices** area on their Account page. Company Administrators can pay invoices billed to their organization, as well as invoices billed to any member of their organization. Staff users with **On Behalf Of** privileges can pay invoices billed to any contact.

Staff users can conveniently view and print a single contact's account statement from the contact's Account page (**Participation** tab, **Open Invoices** area). Staff users can also easily print account statements for all contacts that have outstanding balances.

> **Note:** Only open invoices for orders, events, and desktop sales transactions display in the **Open Invoices** section. Pledges, outstanding accrual membership invoices and cash membership fees do not display.

### Join online with a fixed annual membership term

Online membership joins honor billing settings related to fixed annual term and prorating when the online membership billing cycle has an annual billing type. (Note that billing cycles can use the default billing type as long as the billing time specified in your general options configuration is annual.) If your organization has set up standard or special prorating, fees will be prorated and term dates will be managed accordingly.

### Make payments with TNSPay gateway

The Implementing TNSPay as an authorization gateway is now supported as an authorized gateway for credit card authorizations.

### Adjust transaction date

Staff users can adjust the transaction date for their own and **On Behalf Of** transactions that use non-gateway payment methods, such as checking accounts. This allows staff to specify the true date of payment. These transactions are placed in an open batch for the specified transaction date.

### Limit product search by date

Staff users can define a date and time range to display products to the public in search results. Staff users can still view inactive products in search results by selecting the new **Include inactive results** checkbox.

Select specific items included in a promotion
New search filters allow you to quickly select products to include in a promotion.

Define batch options and view details on the Staff site
Batch details can now be viewed and audited from the Staff site (**Commerce > View batches**). You can expand the summary to review the individual transactions included in the batch.

You also have the flexibility to define batch creation for online transactions. By default, one batch is created for all transactions per day, or system administrators can configure either of the following:

- One batch per day for all staff transactions and another batch for all non-staff transactions
- One batch per day per staff user and another batch for all non-staff transactions

Manage taxation from the Staff site
Staff users can now conveniently manage taxation for products and events through the Staff site.

Define default currency for PayPal Express and Payflow Pro
Staff users can specify the default currency code for PayPal Express and Payflow Pro by navigating to **Settings > Commerce > General.**

Display GSTINC tax for online membership and renewals
GSTINC tax amounts are displayed in the Membership Details page, the cart, and in the order confirmation message for online membership joins and cash renewals. To include the tax in the price, simply create a separate GSTINC tax product and specify that it automatically pairs with the membership billing product.

Test EFT Gateway Account
The EFT Gateway Administrator content item includes a configuration option that allows users to change the Payflow Pro Gateway Host Address for testing purposes.

Staff users can now select one of two gateways in the EFT Gateway Administrator content item: Payflow or iATS.

**Staff productivity and security settings**

Edit and save changes to Staff site navigation

With the iMIS 20.2 release, you can make certain changes to Staff site navigation that will not be overwritten on upgrade. This means you can tailor parts of the Staff site to meet the unique needs of your organization. To take advantage of this new feature, use the new out-of-the-box shortcuts that preserve edits to some Staff site navigation items at upgrade. The following navigation items use the new shortcuts:

- Community, fundraising, events, and commerce dashboards
- Find contacts, Add contacts, and Find events content items
- The **Print Info** and **Donate** buttons on the Staff Account page

You can edit these shortcuts to use content that is saved in the Shared Content folder, if desired.

Access recent data quickly

The new Recent History content item allows all users to quickly review and access items that have been recently viewed such as events, contacts, and groups, increasing productivity.

Manage multiple iMIS instances

With the new Multi-Instance, you can reconfigure a copied instance of a server with multiple iMIS instances and use the copied server instance to set up new instances. This allows you to use new virtual application root names, host names, and database coordinates on the copied server instance.

Access the Advanced Accounting Console from the Staff site

In the Staff site, a navigation link is added that directly connects to the Advanced Accounting Console, remotely. This link provides Staff users the ability to access all of the powerful features of the Advanced Accounting Console from the convenience of the Staff website.

As iMIS transitions to an entirely web-based system, some functionality will be removed form iMIS Desktop and into the Advanced Accounting Console. As of this release, the Document system is no longer available in iMIS Desktop or the Advanced Accounting Console. To access this functionality, use the iMIS Staff site. Any pages that were updated to remove the Document System in iMIS Desktop or the Advanced Accounting Console now include links that open up the relevant page in the Staff site.

Improve password security

To ensure the safety of your data and to help your organization achieve PCI compliance, passwords in new installations of iMIS must meet the following security requirements:

- A minimum length of seven characters
- Contain both letters and numbers

You can modify the minimum required password length and complexity for your organization in the **web.config** file. Be aware, however, that this modification might impact your PCI compliance.

According to PCI recommendations, you should require system administrators and staff users to reset their passwords frequently (every ninety days). An individual;s new password must be different from any of their previous four passwords.

Specify profile security settings

Use the three user-level oriented security settings to specify which users can search for and view contacts. These settings are powered by the queries you place in the following fields:

- **AllUserAccessQuery**: All website visitors can view the contacts included in the query populating this field.
- **AuthenticatedUsersAccessQuery**: All logged-in website visitors can view the contacts included in the query populating this field.
- **MemberAccessQuery**: All logged-in members of your organization can view the contacts included in the query populating this field.

In the Staff site, go to **Settings > Contacts > Contact security** to specify these security settings.

Specify that email address is used for user name

You can specify that all new accounts in core iMIS content use the email address as user name. Three of the content records in the **Core Content > Contacts** folder have been modified to take advantage of this new feature: **Create Account**, **Create Account no Sign In**, and **Create Contact Person or Org**.

If you are using these core content records in your site and do not wish to take advantage of this new feature, create a copy of the content records and update your navigation and shortcuts to point to your content records. Review your site's shortcuts and navigation on **Staff site > Site Builder**:

- In **Manage shortcuts**, review modified content records from the **iCore** folder such as **CreateAccount** or **SignInCreateAccount**.
- In **Manage sitemaps**, review modified content records, such as **Create Account**.

> **Note:** If you want to take advantage of this change in your tailored Create Account pages, simply edit the page and enable the **Use email as username** option.

Define default email addresses for user name changes and commerce item sales notifications

Two new email settings in Quick Setup allow staff users to specify the default email addresses to be notified for user name changes and commerce item sales.

Manage data panels

New Panel Editor functionality hides the panel if the current non-staff user views data for another contact. This option can be used to limit the data a non-staff individual can view about someone else.

Enhancements to the Panel Editor and Panel Collection Editor content items allow easier editing of data in single-instance panels. When contacts choose to edit a panel, the panel displays in edit mode inline with the page instead of in a separate window. Staff users can configure the content items to open in edit mode by default for users who have permission to edit the panel data.

Navigate to system settings quickly

A new Settings navigation item has been added to the Staff site to keep common security, organization, contact, commerce, RiSE, and utility configurations in a single, easy-to-navigate location.

Access and import data using the Workbook Converter

The corresponding version of the Workbook Converter tool for use with your version of iMIS is now placed in the Net\bin folder during the iMIS installation (under the location where iMIS is now installed). The default location is C:\Program Files (x86)\ASI\iMIS\Net\bin. If your iMIS 20-300 system is ASI-hosted, contact ASI Hosting or your AiSP to access the Workbook Converter.

Use the Workbook Converter tool to import data from an Excel workbook into a new iMIS 20-300 database. The original data is exported to an Excel workbook. The Workbook Converter runs a one-time import of this data and uses it to populate the new database.

Default time zones

The time displayed for date and time fields is determined by the time zone of your database server.

Verify New Zealand and Australian addresses

Web services hosted by ASI perform real-time address verification. Beginning with the iMIS20.2 release, Address verification for content items for New Zealand and Australian addresses will use Experian QAS (formally known as QuickAddress Pro v4).

**Performance and stability improvements**

Manage websites efficiently

UltraWave, the underlying stylesheet used within all iMIS themes, has been updated to improve performance. The contents of UltraWave are now combined into a single file. This file is now included directly within each theme, instead of being imported. To take advantage of these performance improvements, please update any custom themes you use.

New AsiScheduler service

The AsiScheduler provides an optimized PUSH publishing infrastructure that provides a more stable publishing service and offers increased performance.

As part of this publishing infrastructure, AsiScheduler has an additional web.config file that enables users to configure their iMIS experience.

### Video tutorials on YouTube

Did you know that there is a YouTube channel dedicated to tutorials about using iMIS?

The iMIS documentation team has been hard at work creating videos to help you learn how to use iMIS, especially new functionality. Over 60 videos are currently available, and new ones are added frequently. Topics ranging from “Managing Committees” to “Advanced Automated Alerts Capabilities” can help you get started in two to ten minutes!

On youtube.com, search for “iMIS Tutorials” and subscribe to the playlist so that you will know when new videos are posted. If you would like to propose a topic that would be helpful in video, email Documentation@advsol.com.

## 20.2 Upgrade changes

This iMIS release delivers many changes to existing features, the database schema, and infrastructure that could impact an upgrade or install. Be sure to review this information before upgrading or installing iMIS 20.2.

### New password requirements

In order to assist customers with PCI compliance, iMIS has new default password requirements. Passwords for new installations of iMIS require, by default:

- Seven characters minimum length
- And at least one numeric character
- And at least one alphabetic character

These requirements can still be modified by your organization if you choose a less stringent requirement. However, your organization could be in non-compliance with PCI DSS.

In previous versions of iMIS, passwords were required to have:

- Six characters minimum length
- And at least one non-alphanumeric character

For new installs, you are required to enter a new **Manager** password. The new password must be at least seven alphanumeric characters long, and must contain at least one uppercase letter, one lowercase letter, and one number.

### AutoPay change

The format for the AutoPay service address URL has changed. The AutoPay service address URL should now be entered in the following format:

`https://localhost/DataVault0`

Where *localhost* is the name of the server on which you have installed the DataVault.

Any customers who entered an AutoPay service address URL prior to version 20.1.23.2971 must change the AutoPay service address URL in their Settings to ensure AutoPay continues to work.

Please review the documentation for more information about installing and configuring the DataVault and AutoPay service address.

### Support email address as username

With this release, iMIS supports creating accounts using an email address as the user name in core iMIS content. In order to accommodate this feature, three of the content records in the **Core Content > Contacts** folder have been modified (**Create Account**, **Create Account no Sign In**, and **Create Contact Person or Org**.). If you are using these core content records in your site and do not wish to take advantage of this change, create a copy of the content records and update your navigation and shortcuts before upgrading.

On the Staff site (**RiSE > Site Builder**) review your site's shortcuts and navigation to verify if the following content records are used:

- **Manage shortcuts** that list any of these modified content records from the **iCore** folder, such as **CreateAccount** or **SignInCreateAccount**.
- **Manage sitemaps** that list any of these modified content records, such as **Create Account**.

> **Note:** To take advantage of this change in your tailored create account pages, simply edit the page and enable the **Use email as username** option.

### Changes to Fundraising queries

Our ongoing efforts to improve performance for the Fundraising interface in iMIS 20-300 have resulted in some changes to IQA queries that should be noted by Fundraising clients prior to upgrading. The primary reason for the changes noted below relate to the **GiftHistory** business object (BO), which we have determined will perform poorly on systems with large numbers of gift transactions.

We have attempted to eliminate the use of the **GiftHistory** BO from all of our standard IQA queries. Instead, we are using the **GiftsReceived** BO which provides nearly the same results. A few differences should be noted:

- GiftsReceived does not include unpaid Pledges and, therefore, does not include a Balance column.
- GiftsReceived does not include unpaid Pledge Installments and, therefore, does not include a Balance column.
- Some of the type values shown for split gifts and split pledge payments are slightly different.

The following queries were updated to use the **GiftsReceived** BO instead of the **GiftHistory** BO:

- $/Fundraising/DefaultSystem/Queries/Charts/**Contributions by Calendar Year Summary**
- $/Fundraising/DefaultSystem/Queries/Charts/**Giving History by Calendar Year Summary**

> **Note:** hese first two actually used one of the other queries listed below as their data source.

- $/Fundraising/DefaultSystem/Queries/Giving History - Public/**Contributions By Calendar Year**

- $/Fundraising/DefaultSystem/Queries/Giving History - Staff/**Giving History by Campaign**
- $/Fundraising/DefaultSystem/Queries/Giving History - Staff/**Giving History by Fund**
  The following query was removed from the system because it used the GiftHistory BO and a different query that uses the GiftsReceived BO already existed and provided the same data:
- $/Fundraising/DefaultSystem/Queries/Giving History - Staff/ **- Giving History by Calendar Year**
  The query that replaces the deleted query is:
- $/Fundraising/DefaultSystem/Queries/Giving History - Staff/**Gifts Received by Calendar Year**
  Fundraising clients should review their existing queries to determine whether any of them are using the **GiftHistory** BO and we recommend that they modify those queries to use the **GiftsReceived** BO.

### Certification license change

Users licensed for the iMIS Desktop Certification module are now automatically licensed to use the web-based Certification product.

### General Product Display configuration change

The **General Product Display** content item can now be configured for a **Display Style** of **Horizontal** or **Vertical**, allowing you to optimize the layout of the content item for varying column widths. The **Horizontal Display Style** is designed for content items in wider columns on a web page (66% or more of the width of the page). The **Vertical Display Style** is designed for content items in narrower columns on a web page (65% or less of the width of the page).

When you upgrade, all of the **General Product Display** content items on your website will be automatically set to a horizontal display style. If your website contains a **General Product Display** content item in a narrower column (65% or less of the web page), change the display style to **Vertical**.

### Intelligent Query Architect (IQA)

IQA now displays the **Define**, **Run**, **Report**, and **Security** tabs above the **Summary**, **Sources**, **Filters**, **Display**, and **Sorting** tabs.

### New AsiScheduler

AsiScheduler replaces two previous iMIS services: **AsiPublishing** and **AsiWorkflow**.

AsiScheduler also has an additional web.config file that enables users to configure their iMIS experience.

When making manual changes to settings in the web.config file, be aware that the same changes must be made in both of the following web.config files:

- **C:\AsiPlatform\Asi.Scheduler_[*your instance*]\web.config**
- **C:\Program Files (x86)\ASI\iMIS\Net\web.config**

### Schema, business object, or SOA changes

The following SOA data contracts have been renamed.

- InvoiceTypeData is renamed InvoicePurposeData.
- InvoiceSummaryData.InvoiceType is renamed InvoiceSummaryData.InvoicePurpose.
- InvoiceData.InvoiceType is renamed InvoiceData.InvoicePurpose.

The following business object was changed:

- The CSCommitteeMember Business Object has been updated to include new fields for the status of committee members. For example, an applicant or a proposed committee member.

  The following field was changed:

- The **DATE_ENTERED** value now stores both the date and time (from the application server) when a transaction is recorded. Tracking the date and time aids audit trail tracking and payment reconciliation.

  Please review any custom reports or procedures that perform comparisons based upon the **Trans.DATE_ENTERED** value and change the logic to compare only the date portion of the attribute.

The following views no longer point to business object views:

- vOfferedCustomerExperience – This view now reads from vNetContact instead of vBoContact.
- vExperienceRoster – This view now reads from ContactMain instead of vContact.
- vParticipantRoster – This view now reads from vNetContact instead of vBoNetContact.
- vDonationsDistribution – This view now reads from Activity instead of vCsActivity.
- vAutoPayInvoices –
- This view now reads from vAutoPayInvoicesDues instead of vBoAutoPayInvoicesDues.
- This view now reads from vAutoPayInvoicesFundraising instead of vBoAutoPayInvoicesFundraising.

**Updated Community display text**

To enhance the user experience, we have renamed the following text in iMIS:

- **Roster** has been renamed as **Participants**.
- **Communities Roster** is now **Community Participant List**.
- **Forums** have also been renamed to **Discussions**.

**Report Display option name**

In the **Toolbar** area in the Report Display content item configuration options, the option **none** is now changed to read **Display full toolbar**.

**Registration dates in Events**

You can now display both the **Registration Start Date** and the **Registration End Date** of an event using the **CsEvent** business object.

**Support for Request Validation 4.5**

iMIS is now using a request validation mode of 4.5. Request validation is a feature built into ASP .NET to protect against users submitting potentially dangerous content such as HTML or JavaScript. iMIS previously used request validation mode 2.0; pages could have request validation turned off if a user input needed to allow HTML to be entered. Now, .NET version 4.5 has the ability to deactivate request validation for a particular user input or control. All of the standard pages in iMIS that allow HTML input have been updated to take advantage of this new feature.

If you have any custom pages that previously depended on a request validation mode of 2.0, you must either update these pages to use the request validation features new to 4.5,

or the pages will need to be made to run in request validation mode 2.0 in the web.config file:

- Use ValidateRequestMode to disable request validation for a particular control (**recommended**):

1. Add `ValidateRequestMode="Disabled"` in the control that needs to allow HTML:

```
<asp:TextBox runat="server" ID="TxtHtml" ValidateRequestMode="Disabled" />
```

2. Encode the HTML value when retrieving it:

```
var htmlValue = System.Web.HttpUtility.HtmlEncode(TxtHtml.Text);
```

3. (optional) Retrieve an HTML value directly from the request:

```
var htmlValue = System.Web.HttpUtility.HtmlEncode(Request.Unvalidated.Form
["MyFormField"]);
```

- Specify which pages need a request validation mode of 2.0 in the web.config file. At the bottom of the web.config file, right before the ending `</configuration>` tag, add a reference to your custom page:

```
<location path="Custom/MyCustomPage.aspx">
    <system.web>
        <httpRuntime requestValidationMode="2.0" />
    </system.web>
</location>
```

> **Note:** To determine if any pages previously depended on request validation mode 2.0, search your .aspx files for `ValidateRequest="false"` in the page directive (for example, `<%@ Page Language="C#" AutoEventWireup="true" Inherits="My_Custom_Page" Title="My Custom Page" Codebehind="MyCustomPage.aspx.cs" ValidateRequest="false" %>`). If you decide to use **ValidateRequestMode** to disable request validation for a particular control, delete `ValidateRequest="false"` from the page directive.

### Omnis change

Any use of temp tables by SQL within the iMIS Desktop code now has COLLATE DATABASE_DEFAULT applied to the columns of varchar, nvarchar or text columns. This allows the iMIS database collation to differ from the default collation for the SQL Server.

### Discontinued support of WCM-only installs

WCM-only installs are no longer supported. If you have an existing WCM-only install already installed on the server you are upgrading, you will be given the option to convert the WCM-only install to a full application server installation. If you decline, the upgrade process will exit.

### Installer Changes (Public view)

The iMIS public view is no longer available as an installable option during initial installations. However, if previously installed, the iMIS public view will be updated during an upgrade process.

> **Note:** The iMIS public view cannot be added during the upgrade process by modifying the installer.

### Deprecated Telerik skins

Telerik has deprecated two skins (**Simple** and **Sitefinity**), and three Telerik skins are now obsolete (**Forest**, **Transparent**, and **Hay**).

The obsolete skins no longer work for Telerik controls with iMIS themes. The out-of-the-box themes available in iMIS have been updated to reflect this change. However, if you have copied iMIS themes and are still using any of these deprecated or obsolete Telerik skins, you must modify your skin files to update your controls.

### Text Only button removed from master pages

The Text only button allows website users to view a website without images. Modern websites do not typically provide this feature because most browsers provide plug-ins for this functionality. Therefore, the Text Only button in iMIS has been removed from all master pages by default. If your website utilized this feature the text only mode can be enabled. Set the ShowTextOnly = true in your master page (.master) file:

```
protected override void CreateChildControls()
{
ShowTextOnly = true;
base.CreateChildControls();
}
```

The Text Only button will only appear if your master page file also contains a TemplatePageTasks ContentPlaceHolder:

```
<asp:ContentPlaceHolder ID="TemplatePageTasks" runat="server"></asp:ContentPlaceHolder>
```

### Deprecated Member Mobile Quick Start Site

ASI is encouraging customers to implement the new Member Responsive site instead of the Member Mobile Site following the iMIS 20.2 release. Upgrades will not affect existing copied Member Mobile sites, however the Member Mobile site will no longer be supported in the future.

### URL Parameters encoding

iMIS encodes the characters entered into the sitemap URL Parameters field. For example, if you enter the URL parameter **ID=[LoggedInUserId]**, it will show as **%bLoggedInUserId%5d** in the URL. If you have code that checks for special characters in the URL, you must decode the URL before looking for those special characters.

iMIS does not encode the equals sign (**=**), ampersand (**&**) and question-mark (**?**) characters.

### Commerce item display

Some upgrades may result in duplicate displays of commerce items. To remove the duplicates, in the Advanced Accounting Console/Desktop, go to **System Setup** > **Set up commerce web components** > **Store Home**. Expand the Store Home node and select the appropriate category in the left panel. Delete the product that displays more than once. Click **Exit Linking Process** to save.

### SQL credentials on DataVault upgrade

When upgrading your DataVault install, you must re-enter the admin password for your SQL instance. iMIS does not store the connection credentials for your SQL instance when you initially install the DataVault. You must re-enter your SQL credentials when upgrading.

### Generated client IDs

The prefixes for many generated client IDs in iMIS have changed from **ctl00** to **ctl01**. For example, a control with the ID

```
ctl00_TemplateBody_WebPartManager1_gwpciDirectory_ciDirectory_
PeopleSearch_ResultsGrid_Sheet0_SubmitButton
```

might now have the ID

```
ctl01_TemplateBody_WebPartManager1_gwpciDirectory_ciDirectory_
PeopleSearch_ResultsGrid_Sheet0_SubmitButton
```

Any JavaScript or CSS that depends on generated IDs might need to be updated. If possible, use a method that does not depend on any generated IDs. You can use CSS classes, or use C# to retrieve the generated ID.

> **Note:** ASP.NET generated IDs are identifiable by their prefix, which begins with **ctl** followed by a number, typically **00** or **01**.

### Reset the application pool recycle schedule

iMIS application pools will recycle at a randomly generated time each day between 1:00 am and 3:00 am. Tasks that are scheduled during this time might be interrupted, and interrupted tasks cannot be recovered. You can edit the **applicationHost.config** file to reset this application pool recycle schedule. For more information, see Resetting the application pool recycle schedule.

## Highlights from previous iMIS 20 versions

### 20.1 Highlights (Released January 2014)

The iMIS 20.1 release included new functionality, as well as improved and enhanced features. The following features were included in the 20.1 release:

> **Note:** Additional licensing might be required for the following new and enhanced features. Contact your AiSP or ASI for more information.

- New **iMIS Communication Suite** – Design and send email communications to designated contacts. You can create and reuse message templates and customize the recipients using an IQA query.
- New **AutoPay** – Automatic renewal of membership fees and recurring donations from the Join Now and Give Now pages (*license required*).
- New **Event** console – Provides detailed information about an event, including a quick-view dashboard of the event and registrants.
- New **Style Guide** available for web developers to reference when designing or editing an iMIS theme.
- Staff overrides of simple item pricing.
- Support for Moneris payment gateway.
- Improved website performance and accessibility.
- Advanced Administrative Console improvements.
- Customizable Staff Account pages.

For details, please review the 20.1 New Features.

**20.0 Highlights (Released June 2013)**

In iMIS 20, we introduced the new Engagement Management System for organizations to engage members, donors, and other constituents - as well as staff - anytime, anywhere, and from any device. The following features were included in the 20.0 release:

> **Note:** Additional licensing might be required for the following new and enhanced features. Contact your AiSP or ASI for more information.

- New **RiSE** Platform – Powerful tools that allow you to manage your website's appearance, navigation structure, and content.

- New **Content Gallery** – A gallery of sophisticated, easy-to-use tools to customize existing iMIS self-service pages and to create entirely new personalized web pages that meet the ever-changing demands of your constituents – with no programming necessary.
- New **Quick Start Sites** – Sample sites that can be easily copied to create customized sites for your organization:
- **Member** site offers a rich experience for self-service by your organization's members and prospects.
- **Member Mobile** site renders the Member site in format and behavior that is optimized for use on smart phones and tablets.
- **Donor** site offers a rich and changeable experience for fundraisers conducting charitable campaigns and product sales.
- **Annual Conference** site offers a "microsite" experience to support your critical projects, such as an organization’s annual conference.
- **Annual Conference Mobile** site renders the **Annual Conference** site in format and behavior optimized for use on smart phones and tablets.
- New **Staff** site – A convenient site designed for staff members to manage your organization's business directly from a browser. You can also define and edit events and program items directly from the Staff site.
- New **Guided Performance Scorecard** (GPS) – Lets your organization track its performance by measuring progress in Key Performance Indicators (KPI) and other important indexes. GPS is a powerful tool to show an organization’s progress in reaching internal goals, and to measure performance against other industry-leading organizations.
- New **Advanced Administrative Console** – A streamlined, easy-to-use interface for most iMIS setup and management functions
- New mobile-compatible theme: **Austin_Mobile**.
- Improved Communities Dashboard.
- Address Mapper content item "show map" link enhancement.

  For details, please review the 20.0 New Features.

iMIS

# How to articles

The following articles are provided to help you use specific areas of iMIS. If you would like to request an article or make a suggestion, please contact the Documentation team.

## Articles By Category

### Accounting & Finance

Backdating cash and check transactions

Including GSTINC in online membership joins and renewals pricing

Managing automatic batches from the Staff site

Printing contact account statements

Defining prorating rules

### Community

Managing chapters

Merging contacts

### Commerce & Products

Automatic membership renewals

Backdating cash and check transactions

Configuring billing options

Defining prorating rules

Recurring donations

### Communications

Adding the communication content record to a sitemap

Adding the communication query to a content record

Configuring and sending email

Creating a list of contacts to email

Creating an email

Creating email communication templates

Displaying automated alerts

Managing communication preferences

Tracking email interactions with contacts

Donations & Fundraising

Creating online donation pages

Importing donor and donation data

Recurring donations

Payments in iMIS

Backdating cash and check transactions

Membership & Renewals

Setting up Join Now

Reporting

Running contact reports

SSRS reports

Modifying an existing SSRS report

Printing contact account statements

Translation

Using iMIS Translation

Website Management

Accessing the iMIS Advanced Accounting Console from a Web Browser

Creating a custom theme

Creating an iMIS Application Shortcut with Google Chrome

Enabling CAPTCHA Security

Implementing advanced website navigation features

Signing in to your website using a social media account

Tailoring the staff account page

Tailoring the Staff site

Using Quick Start Sites

Using sample themes and Master Pages

Using sitemaps

## Backdating cash and check transactions

You may frequently receive transactions, such as product orders, membership joins, and event registrations, through the mail or over the phone. In these cases, the payment is often deposited before a staff member can enter the transaction into iMIS, but you need the transaction date in iMIS to match the true date of the transaction. To accomplish this task, staff users can easily backdate their own and **On Behalf Of** cash and check transactions.

> **Note:** You cannot backdate transactions that use gateway payment methods, such as credit cards and PayPal.

The entered transaction date is used as the order date, payment date, and the date of all journal entries. If a dues product is purchased, the entered transaction date overrides the system date as the membership join date.

The transaction is added to an open batch for the entered transaction date. If all batches for that date are closed, a new open batch for the date is automatically created. For more information on batches, read the Managing automatic batches from the Staff site article.

To backdate cash and check transactions:

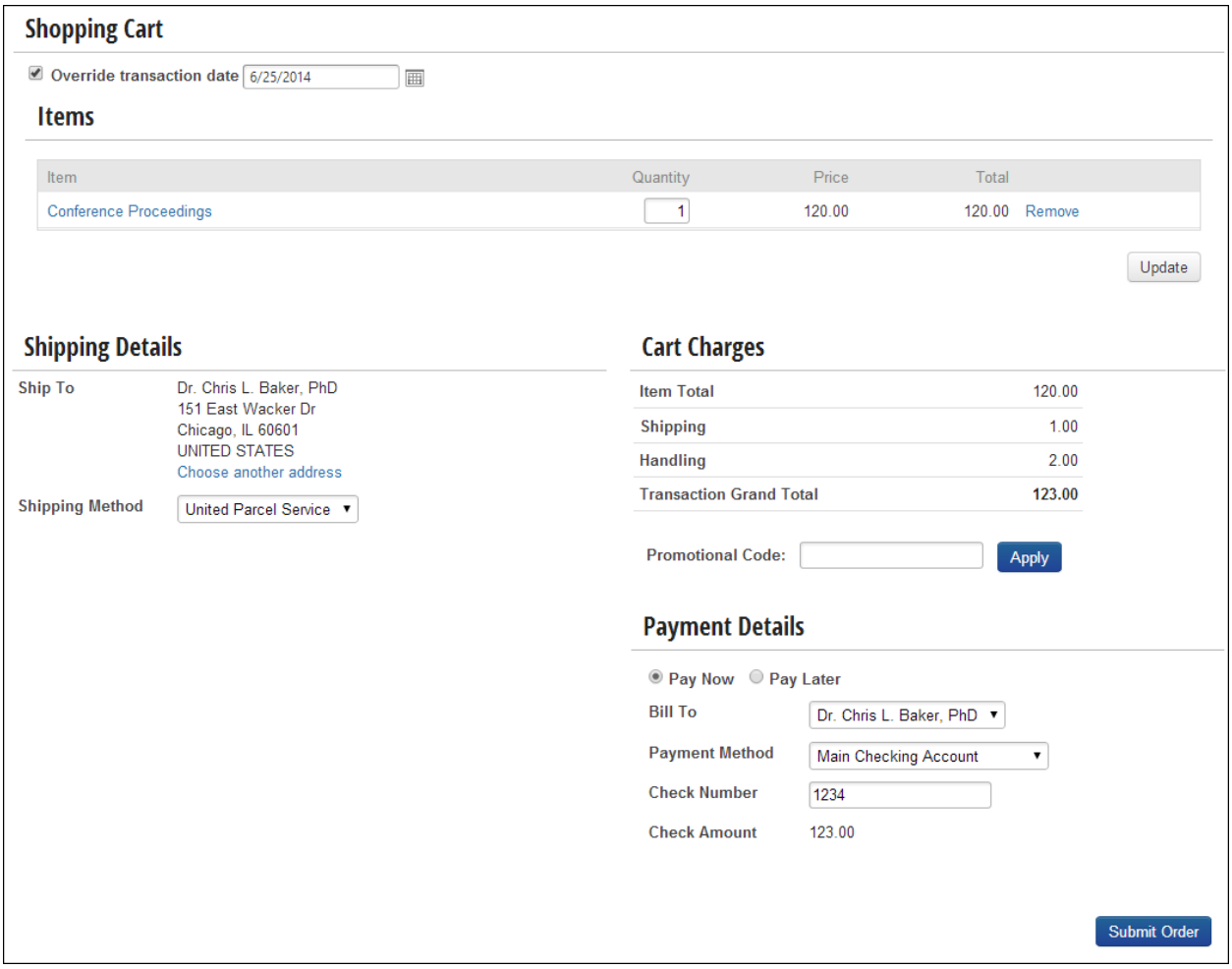
1. Go to the Staff site or the Member site.
2. Navigate to the cart.
3. Select **Override transaction date** and enter the correct transaction date.
4. Select to work **On Behalf Of** the contact making the transaction.
5. Add the item purchased by the contact to the cart.
6. Proceed to checkout (i.e., navigate to the cart).
7. Enter the appropriate payment details.

a. Choose to **Pay Now** or **Pay Later**.

b. Select a non-gateway payment method, such as a checking account. If you select a gateway payment method, such as a credit card, you will receive an error message.

c. If requested, enter the **Check Number**.

Click to view image




7. Submit the order.

**Warning!**

When you change the transaction date, the newly entered date persists to each transaction you enter that uses a non-gateway payment method in the same session.

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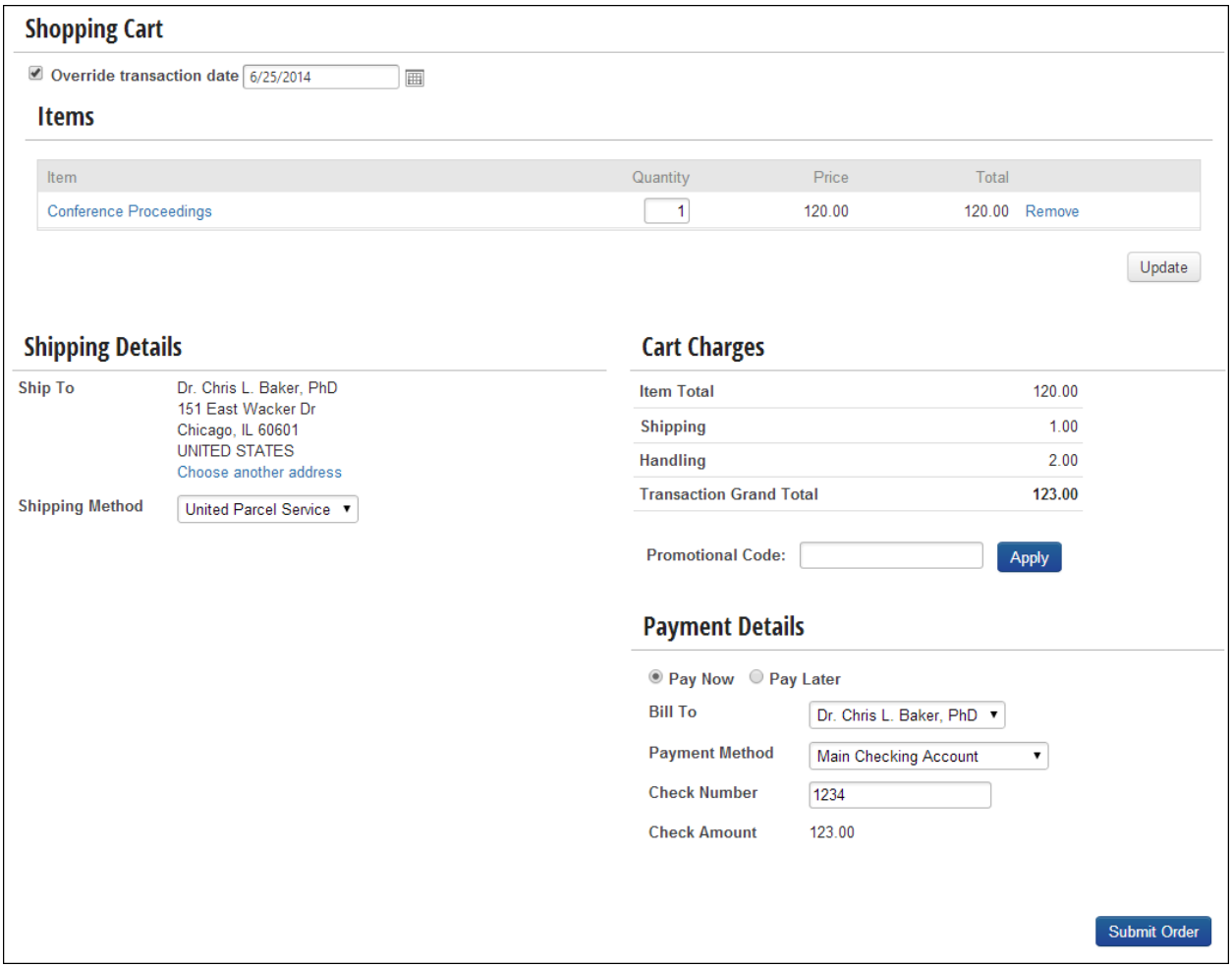
The transaction is added to an open batch for the entered transaction date. If all batches for that date are closed, a new open batch for the date is automatically created. For more information on batches, read the Managing automatic batches from the Staff site article.

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Click to view image




7. Submit the order.

> **Warning!**
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> When you change the transaction date, the newly entered date persists to each transaction you enter that uses a non-gateway payment method in the same session.

## Including GSTINC in online membership joins and renewals pricing

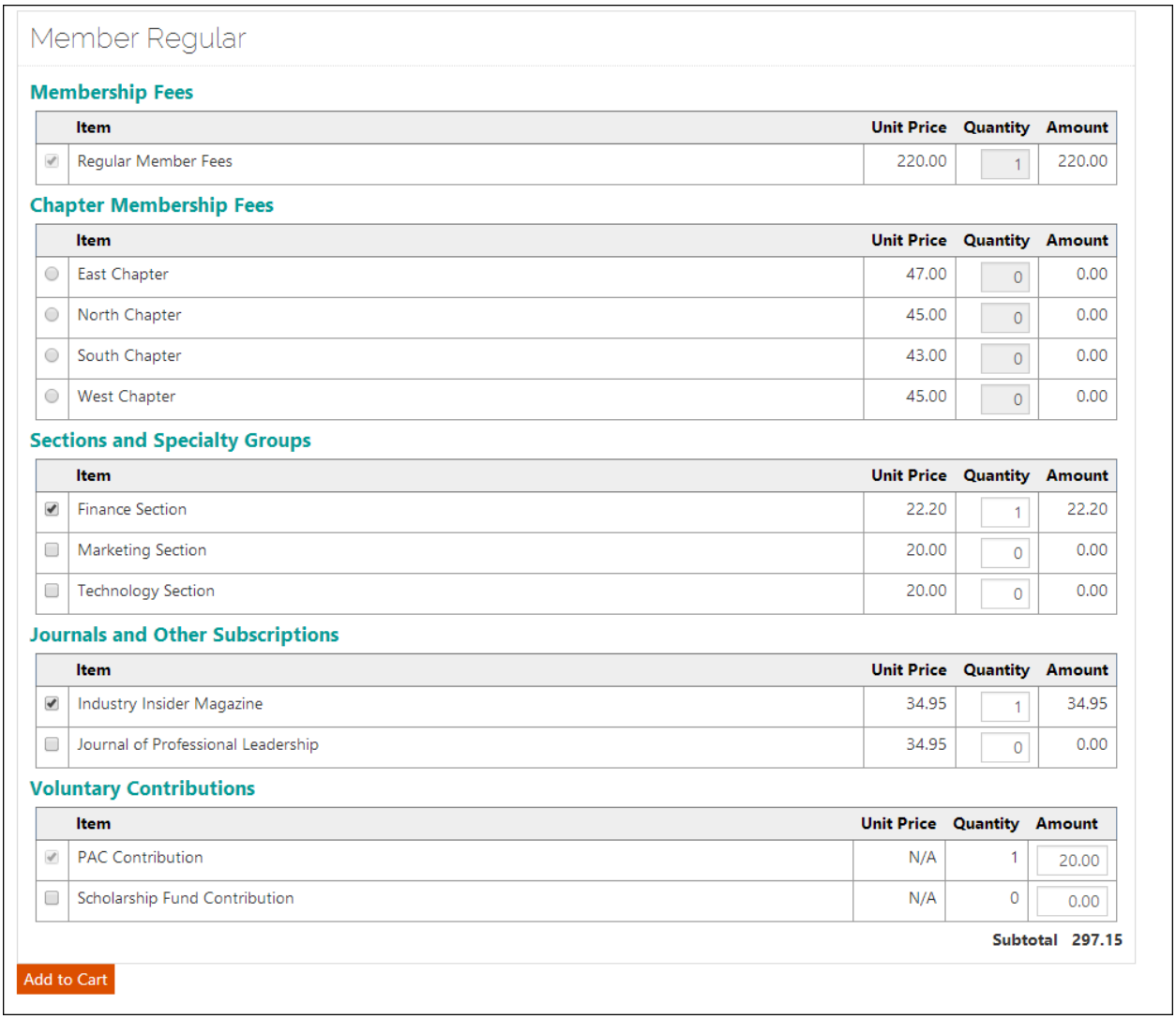
In iMIS systems that use GSTINC as the taxation method for the default organization, you can include the GSTINC (Good and Services Tax, Inclusive) tax amount in the price of online membership joins and cash renewals.

To include GSTINC in the price of these membership billing products, create a GSTINC tax product to pair with the membership billing product. These products should use identical product codes and types, except you must append the suffix "**_GST**" to the product code for the GSTINC tax product. For example, you could use **MEM** as the product code for the membership billing product and **MEM_GST** as the product code for the tax product.

When the product codes conform to this format and the membership billing product is included in the online billing cycle, the products create a kit, meaning that when a user selects the membership billing product, the GSTINC tax product is automatically included in its price in the membership details page, the cart, and the online order confirmation page.

In the example below, the Regular Member Fees product (Product Code = REG), which is priced at 200.00, has a paired GSTINC tax product (Product Code = REG_GST) with a price of 20.00. The Finance Section product (Product Code = FIN) , which is priced at 20.00, has a paired GSTINC tax product (Product Code = FIN_GST) with a price of 2.20. Although the paired GSTINC tax products do not display separately in the membership details page, the cart, and the online confirmation page, they are automatically bundled with their paired membership billing products, which list the combined prices for both products. Thus, the Regular Membership Fees product is listed with a price of 220.00, and the Finance Section product is listed with a price of 22.20.

Click to view image




*Membership details page for an online join that includes GSTINC in the Regular Member Fees and Finance Section Fees*

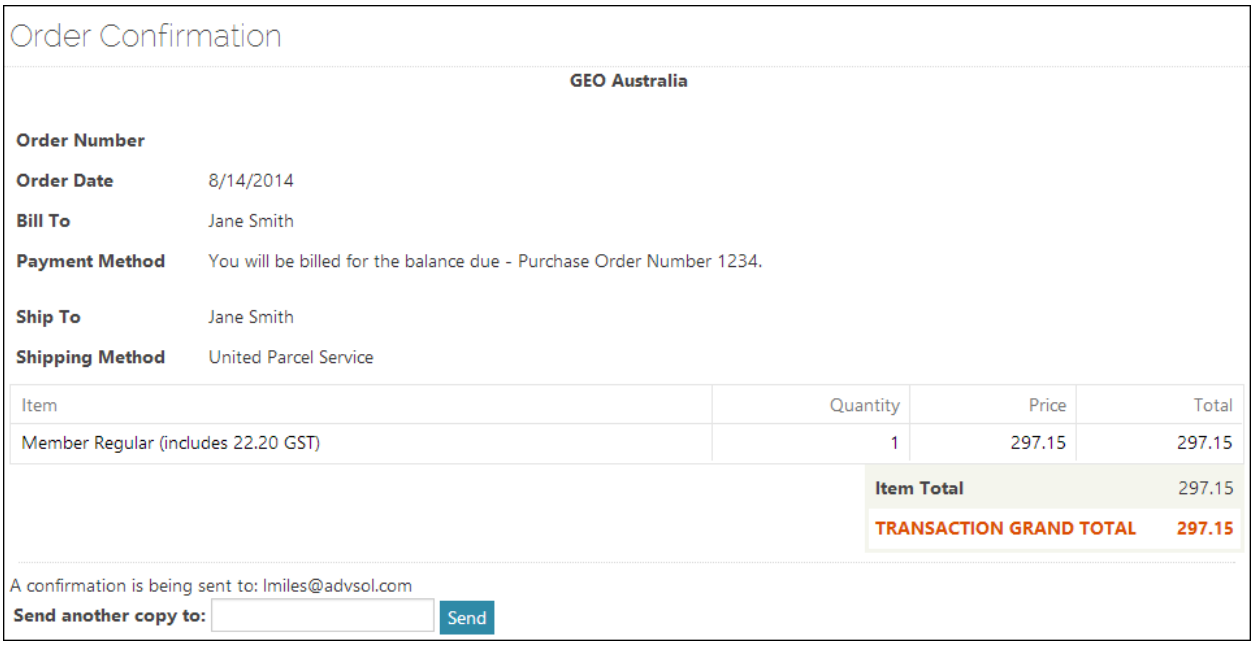
**Note:** On the membership details page, a consolidated price displays for the membership billing product and the GSTINC tax product. The GSTINC tax product is not listed separately.

Click to view image




*Cart page for an online join that includes 22.20 of GSTINC for the Regular Member Fees and Finance Section Fees*

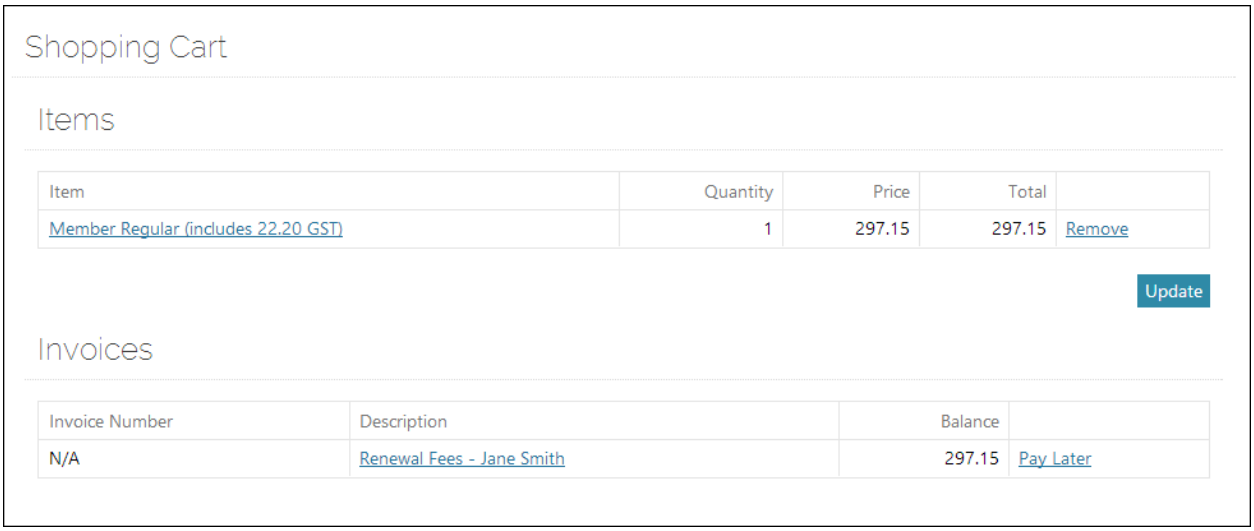
Click to view image




*Order confirmation page for an online join that includes 22.20 of GSTINC for the Regular Member Fees and Finance Section Fees*

When the member renews online, the invoice line in the cart includes the GSTINC in the price, but does not display the **(includes XX.XX GST)** message for the membership billing product. Any adjustments line, however, that includes GSTINC will display this message.

Click to view image




*Cart page for an online renewal that includes GSTINC in the invoice price and adjustment line price*

Including GSTINC in online membership joins and renewal pricing

1. In the Advanced Accounting Console, go to **File tab > System Setup > Organization Names** to confirm that GSTINC taxation is enabled.

a. Confirm that **Canadian** is the **Taxation Method**.

b. Confirm that **GSTINC** is the **Tax Authority**.

2. Go to **Settings > Billing > Billing products** to create the GSTINC tax product.

a. Click **New**.

b. Enter the **Product Type**, which must be the same product type as its paired membership billing product.

c. Enter the same **Code** as the membership billing product with **_GST** appended. For example, if the membership billing product **Code** is **MEM**, the GSTINC tax product **Code** should be **MEM_GST**.

d. Enter the **Standard Price**. To obtain this amount, calculate the GSTINC tax amount owed on the primary billing product.

e. Select **Accept Payments on the Web** to use the GSTINC tax product with online joins and renewals.

f. Enter additional information as needed.

g. **Save** the new tax product.

h. (Optional) If your organization has members who reside in countries that do not use GSTINC, click **Special Prices** to define a pricing rule that limits the application of the tax product to contacts residing in countries in the AP region. In these cases, you may want to set the **Standard Price** of the GSTINC tax product to 0 and create a pricing rule that matches the contact's country of residence to the appropriate GSTINC tax amount.

> **Note:** In situations where different member types receive different member rates, you can create special pricing rules that set the price of the GSTINC tax product as the correct amount for each member type.

i. **Save** the changes to the tax product.

3. Go to **Settings > Billings > Billing cycles** to confirm that the membership billing product is included in your online billing cycle. If the membership billing product is selected for the billing cycle, the paired tax product is automatically included and added to the membership billing product's price when purchased online. To learn more about setting up an online billing cycle, read Setting up Join Now.

## Managing automatic batches from the Staff site

Transaction records are created for the various financial actions, such as membership joins, membership renewals, product purchases, event registrations, open invoice payments, and donations, that take place on your website. iMIS automatically groups these transactions in batches by date.

From the Staff site, you can perform the following batch management tasks:

- Configure the batch mode for staff web transactions
- View and print information about existing batches

> **Note:** You must perform many basic batch management tasks in iMIS Desktop or the Advanced Accounting Console.

### Configuring the batch mode for staff web transactions

You can place all web transactions in a single batch or create separate batches for staff and public web transactions. Placing staff web transactions in their own batch allows for easier auditing of the transactions by a system administrator.

To configure the batch mode for staff web transactions

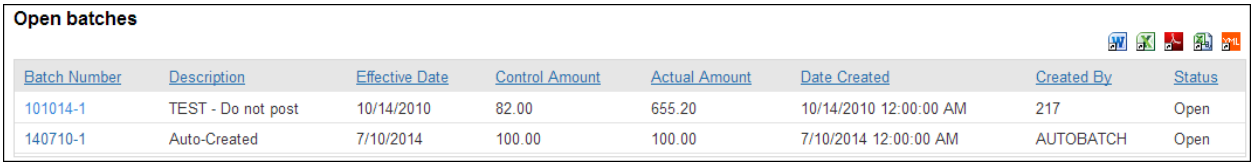
1. Go to **Settings> Commerce > General > Batch mode for staff web transactions (BatchMode)**.
2. Select the appropriate **Batch mode for staff web transactions**. You can choose from three options:

- **Staff transactions in same batch as public transactions** - The default option places staff and public users' web transactions in the same batch. One batch of web transactions is created for each day.
- **Separate batches for staff and public transactions** - This option places staff and public users' web transactions into two separate batches per day. If a batch does not exist for either category of users for the day, it is created.
- **Individual batch for each staff user per day** - This option places each staff user's web transactions into a separate batch per day. All web transactions by public users are placed into one batch for the day. If a batch does not exist for a specific staff user or for public users, it is created.

## Viewing and printing information about batches

You can easily view and print information about batches from the Staff site.

Click to view image



**Open batches**

| Batch Number | Description | Effective Date | Control Amount | Actual Amount | Date Created | Created By | Status |
|---|---|---|---|---|---|---|---|
| 101014-1 | TEST - Do not post | 10/14/2010 | 82.00 | 655.20 | 10/14/2010 12:00:00 AM | 217 | Open |
| 140710-1 | Auto-Created | 7/10/2014 | 100.00 | 100.00 | 7/10/2014 12:00:00 AM | AUTOBATCH | Open |

1. In the Staff site, go to **Commerce > View batches**. A list of open batches displays.
2. (optional) To find other batches, click **Select a query**. You can choose from the following search queries:

- **Open batches** - Displays all open batches. This search query runs by default when you navigate to the initial **View batches** screen.
- **Ready batches** - Displays all batches with a status of **Ready**. These batches are ready to be processed and no longer accept new transactions.
- **Search all batches** - Displays search criteria fields that allow you to filter the batches that display in the list. Enter the appropriate search criteria and click **Find**.

A list of batches matching your search query displays. You can export this list to a .doc,.xls, .pdf, .csv, or .xml file.

> **Note:** These search queries are saved at **$/Accounting/DefaultSystem/Queries/Batches/Batch Search** in the Intelligent Query Architect. To modify the search criteria, you can copy the query, adjust the copied query, and add it to the **Batch Search** folder. All of the queries in the **Batch Search** folder are included in the **Select a query** list.

3. To view information about the transactions in a batch, click its **Batch Number**. The **Selected batch** row summarizes essential information about the batch. The **Batch detail** lists one transaction summary row for each transaction number in the batch.

   You can export the **Batch detail** to a .doc, .xls, .pdf, .csv, or .xml file. The exported file only includes a list of the transactions. It does not include the transaction's details (i.e., individual lines that comprise the transaction).

   > **Note:** The **BatchInfo** query generates the information in the **Selected batch** row. You can view the query at **$/Accounting/DefaultSystem/Queries/Batches/Batch Info** in the Intelligent Query Architect.

   > **Note:** The individual amounts for each transaction within a batch may not add up to the total **Actual Amount** for that batch. The **Actual Amount** only includes payments received in the current batch, whereas the **Batch detail** lines for transactions can include summary amounts that have not been paid, such as open invoices.

4. (optional) If you would like to view Batch Data Reports, you can choose from the following:

- **Print Summary** (Prints Batch Transaction Summary): A summary batch that lists in sequential order one summary line for each transaction in the batch (similar to the summary that is listed in the view).

- **Print Details** (Prints Batch Transaction Details): A detailed batch report that is similar to the Crystal batch report by providing a header for each transaction and printing each detail line, showing the applicable debit or credit amount and any adjustment amount.

  > **Note:** Adjustment amounts only apply to cash dues payments.

  The report also prints a transaction recap located at the end of the report. The recap lists a GL transaction summary (grouped for each transaction owner financial entity represented in the batch) and summarized by either GL Account and Pseudo Account.

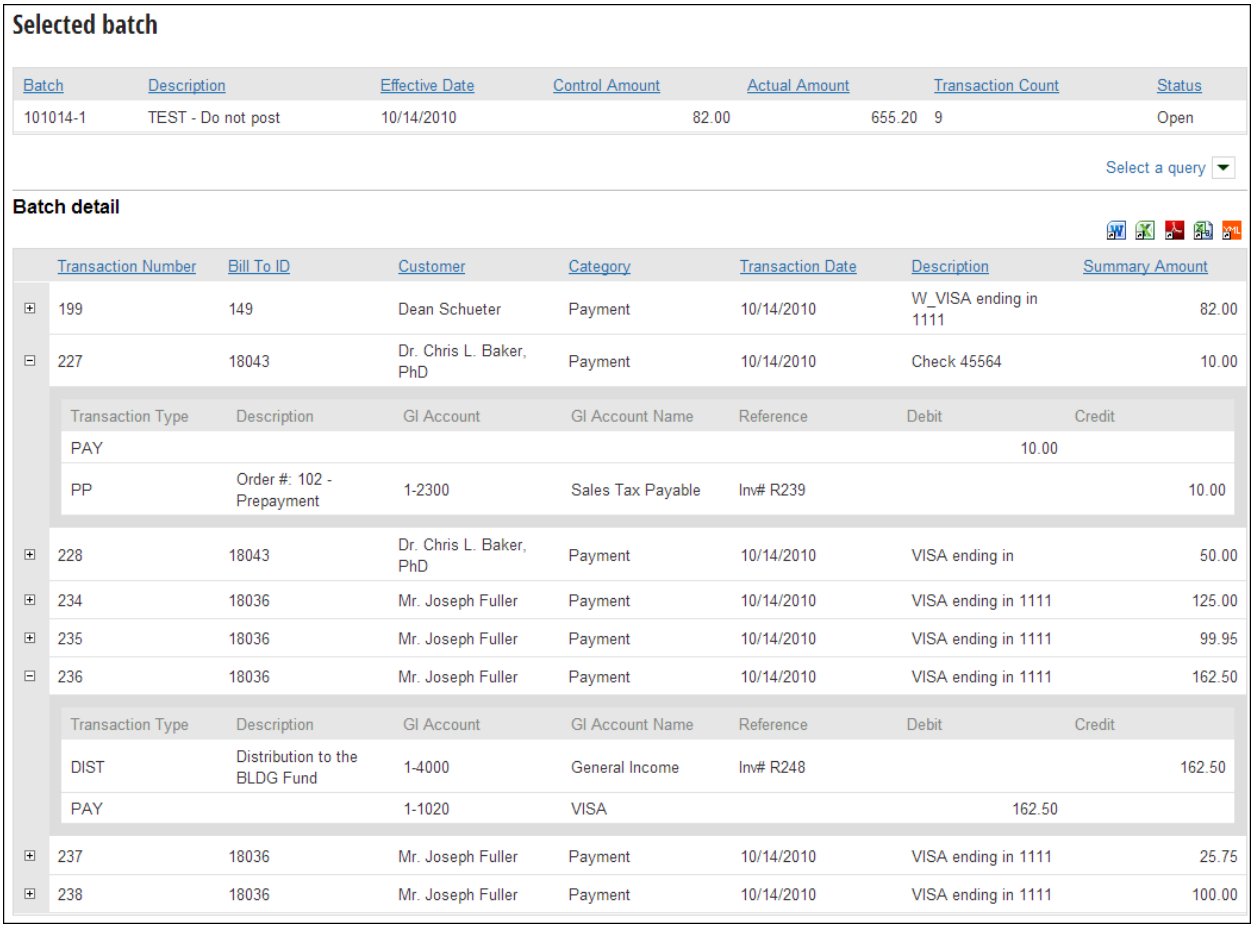
- **Print Summary by Payment Method** (Prints Batch Transaction Summary by Payment Method): This report assists in the reconciliation of bank accounts with sorting and summarizing the transactions by Cash GL Account and the payment method within the GL Account. The transactions in the batch that have no payments are sorted and summarized at the end of the report. The report has the following groupings and subtotals:
- Broad category sorts and subtotals for Payment Transactions, Application of Open Credit, and Non-Payment transactions
- Within the Payment broad category only
- High level sort and summary by Cash GL Account
- Within Cash GL Account, intermediate sort and summary by payment method
- Sequentially by TRANS_NUMBER within each sort group.
- **Print Details by Payment Method** (Prints Batch Transaction Details by Payment Method): A detailed batch report, sorted and subtotaled by each unique combination of Cash GL Account and payment method. It is followed next by a section of application of open credit (if such transactions exist in the batch), and with all non-payment transactions sorted and grouped at the bottom of the report.

5. (optional) To filter the listed transactions, choose **Select a query**. You can choose from the following search queries:

- **Batch detail** - Displays all transactions that are part of the selected batch. The transactions retrieved by this query display by default when you select a batch to view.
- **Batch detail search** - Displays search criteria fields that allow you to filter the listed transactions. Enter the appropriate search criteria and click **Find**.

> **Note:** These search queries are saved at **$/Accounting/DefaultSystem/Queries/Batches/Batch Details** in the Intelligent Query Architect. To modify the search criteria, you can copy a query, adjust the copied query, and add it to the **Batch Details** folder. All of the queries in the **Batch Details** folder are included in the **Select a query** list.

6. To view a transaction's details (i.e., the individual lines that comprise the transaction), expand its row in the **Batch detail** area.
   Click to view image



**Selected batch**

| Batch | Description | Effective Date | Control Amount | Actual Amount | Transaction Count | Status |
|---|---|---|---|---|---|---|
| 101014-1 | TEST - Do not post | 10/14/2010 | 82.00 | 655.20 | 9 | Open |

Select a query

**Batch detail**

| | Transaction Number | Bill To ID | Customer | Category | Transaction Date | Description | Summary Amount |
|---|---|---|---|---|---|---|---|
| ⊞ | 199 | 149 | Dean Schueter | Payment | 10/14/2010 | W_VISA ending in 1111 | 82.00 |
| ⊟ | 227 | 18043 | Dr. Chris L. Baker, PhD | Payment | 10/14/2010 | Check 45564 | 10.00 |

| Transaction Type | Description | GI Account | GI Account Name | Reference | Debit | Credit |
|---|---|---|---|---|---|---|
| PAY | | | | | 10.00 | |
| PP | Order #: 102 - Prepayment | 1-2300 | Sales Tax Payable | Inv# R239 | | 10.00 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ⊞ | 228 | 18043 | Dr. Chris L. Baker, PhD | Payment | 10/14/2010 | VISA ending in | 50.00 |
| ⊞ | 234 | 18036 | Mr. Joseph Fuller | Payment | 10/14/2010 | VISA ending in 1111 | 125.00 |
| ⊞ | 235 | 18036 | Mr. Joseph Fuller | Payment | 10/14/2010 | VISA ending in 1111 | 99.95 |
| ⊟ | 236 | 18036 | Mr. Joseph Fuller | Payment | 10/14/2010 | VISA ending in 1111 | 162.50 |

| Transaction Type | Description | GI Account | GI Account Name | Reference | Debit | Credit |
|---|---|---|---|---|---|---|
| DIST | Distribution to the BLDG Fund | 1-4000 | General Income | Inv# R248 | | 162.50 |
| PAY | | 1-1020 | VISA | | 162.50 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ⊞ | 237 | 18036 | Mr. Joseph Fuller | Payment | 10/14/2010 | VISA ending in 1111 | 25.75 |
| ⊞ | 238 | 18036 | Mr. Joseph Fuller | Payment | 10/14/2010 | VISA ending in 1111 | 100.00 |

> **Note:** The **Control Amount** for the **Selected batch** is the amount of the deposit to the bank for the transactions in the batch and is used for balancing and auditing

transactions. Once the **Control Amount** equals the **Actual Amount**, the batch can be posted.

*See also*

- Backdating cash and check transactions

### Printing contact account statements

Staff users can conveniently view and print an account statement for any contact with an outstanding balance from the contact's staff account page on the Staff and Member sites. They can also run a report that provides account statements for all contacts in iMIS with outstanding balances.

An account statement is a summary of a contact's open invoices. It, however, does not include pledge payment, gifts, pledges, and automatic and cash renewal invoices.

You can print account statements on letter-size or A4-size paper, and can easily fold them to fit inside letter-size and C4, C5, C6, and DL-size envelopes.

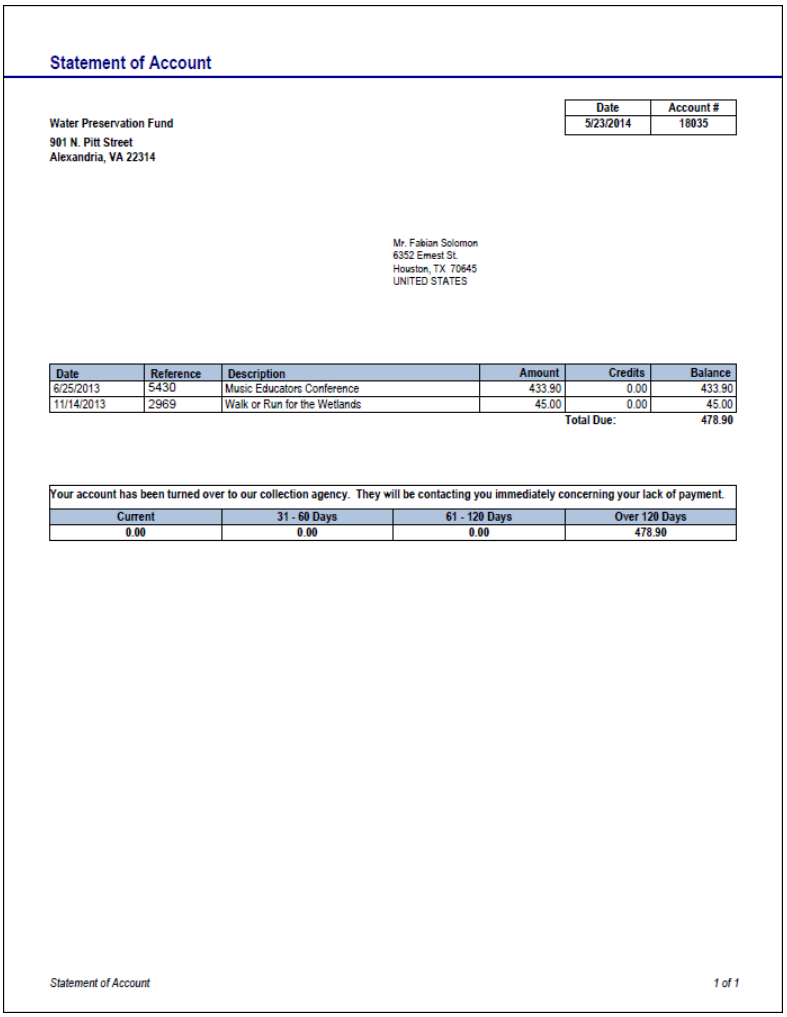
The account statement is the **ARStatement.rdl** report, which you can access on the **Participation** tab of a contact's staff profile page by clicking **Print Statement** in the **Open Invoices** section. It is also available in **RiSE > Document system**at **$/Accounting/DefaultSystem/Reports**.

**Note:** This report differs from the **A/R Statements (Crystal)** report available in iMIS Desktop at **AR/Cash > Generate reports**.

#### To print an account statements:

1. Navigate to a contact's account page.
2. On the **Participation** tab, click **Print Statement**. The contact's account statement displays.
   - To print account statements for all contacts with outstanding balances, enter **All** in the **ID (or All)** field and refresh.
3. Export the account statement to PDF.
4. Print the PDF from Adobe Reader.

Click to view image



Statement of Account

Water Preservation Fund
901 N. Pitt Street
Alexandria, VA 22314

| Date | Account # |
|---|---|
| 5/23/2014 | 18035 |

Mr. Fabian Solomon
6352 Ernest St.
Houston, TX 70645
UNITED STATES

| Date | Reference | Description | Amount | Credits | Balance |
|---|---|---|---|---|---|
| 6/25/2013 | 5430 | Music Educators Conference | 433.90 | 0.00 | 433.90 |
| 11/14/2013 | 2969 | Walk or Run for the Wetlands | 45.00 | 0.00 | 45.00 |
| | | | | Total Due: | 478.90 |

Your account has been turned over to our collection agency. They will be contacting you immediately concerning your lack of payment.

| Current | 31 - 60 Days | 61 - 120 Days | Over 120 Days |
|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 478.90 |

Statement of Account 1 of 1

## Defining prorating rules

Prorating means allocating or assigning an amount to an activity or product that is proportional to some base (determined by a formula or procedure). Prorating is only applied to organizations that bill on an annual or fixed-term basis, as opposed to an anniversary or rotating term basis.

**Note:** The number of months used by the prorate rule for an individual is **Thru Date** to **Join Date**. Prorate only applies if the Join Date is populated before running the billing.

The three options available to define prorating rules include the following:

- **Do Not Prorate** – Same dues regardless of when customer joins.
- **Standard Prorating** – Prorating for the current year (depends on the billing interval). For example, if a customer joins in month 7 and annual dues are $200, the calculated dues would be 6/12 of the total dues, or $100.
- **Special Prorating** – User-defined prorating rules, depending upon the needs of the organization. If the **Special Prorating** option is enabled, proration rules are created on the **Prorating** window. Prorating rules can be used for unique situations that require more than simple monthly prorating within the first year, such as:
  - Quarterly or semi-annual prorating
  - Second-year prorating (receive x% off of next year's dues)
  - Advancing the membership term to the end of the next year
  - Multiple prorating rules

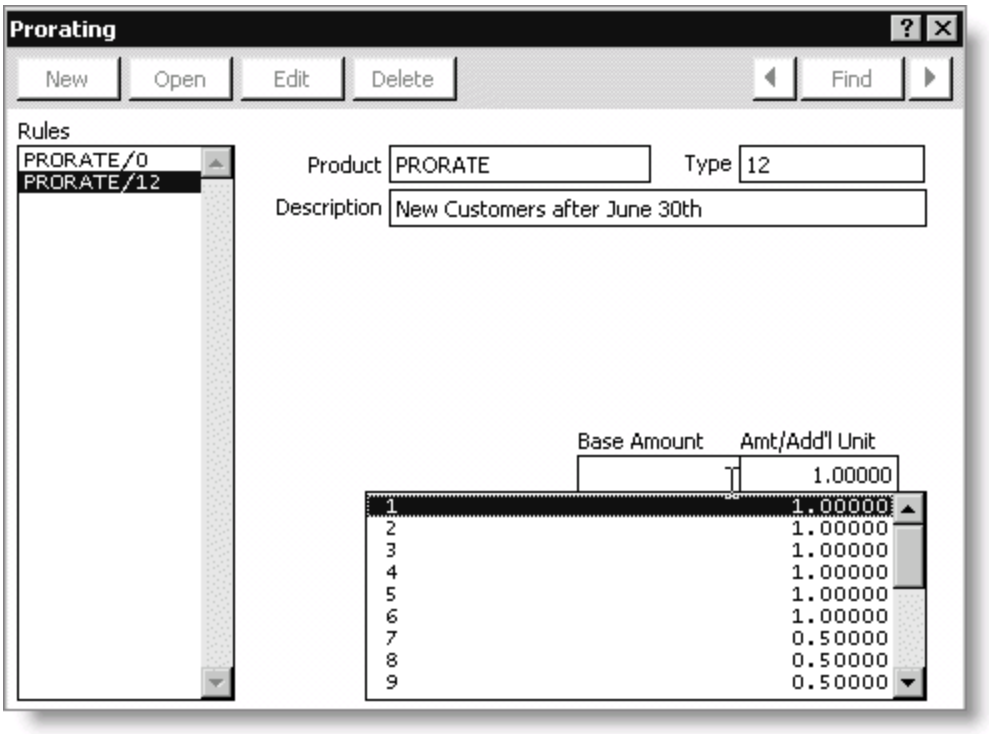
**Tips**

- If a former member rejoins your organization (that is, they already have an existing join date in the system that is earlier than the beginning of the current fixed-term) through the online join page, one of two scenarios can occur:
  - If the contact is an active member, the rejoin is processed as a renewal and prorating does not apply. The contact pays the full membership fee for the fixed-term.
  - If the contact is not an active member, the join date resets to the current system date and prorating is applied. If your organization needs to maintain a record of the original join date, you can create a user-defined field where a staff members can enter the date before processing the rejoin.

**Working in the Prorating window**

In the Advanced Accounting Console, go to **Settings > Billing > Billing products**. Click **Prorate Rules**.

Click to view image




**Rules**
List of defined prorating rules.

**Product**
This field is automatically populated with PRORATE. You can edit this value.

**Type**
Indicates the number of months in the billing period. This number must agree with either the **Product Renewal Months**, on the **Billing products** window (**Settings > Billing > Billing products**) or the **Standard Billing Interval** on the **Configure billing options** window (**Settings > Billing > Configure billing options**).

**Description**
Specifies a detailed description of the prorating rule.

**Prorating Table Entries**
The entries in the prorating table specify the amount that a customer is charged. For example, if month 1 represents an on time payment, for which a customer is charged a full fee (100%), the **Amt/Add'l Unit** field will hold a "1". There must be one table entry for each month in the renewal cycle as defined in the **Type** field.

### Base Amount

Specifies refinements (if any) to the prorating rule. The following codes can be entered in this field:

- **F** (Future Credit) - Postpones the prorating discount to the second billing year.
- **B** (Bump Date) - Advances the end of the billing term to the end of the next term. The amount charged depends on the multiplier entered in the **Amt/Add'll Unit** field.

### Amt/Add'l Unit

Indicates the percentage of the full price to charge customers.

## Using future credit and bump date prorating

In addition to changing the price a customer is charged in monthly increments, special prorating rules also offer Future Credit and Bump Date prorating.

#### Future credit

Future credit prorating applies any time-based discounts to next year's dues and charges full credit for this year's dues. For example, an organization may charge full annual dues no matter when in the year a customer joins, but give a time-based discount for new members joining after the sixth membership month.

#### Bump date

Bump date prorating charges a fee no matter when in the membership year a customer joins, but after a named cutoff point, advances the renewed through date to the end of the next billing term.

#### Future credit and bump date examples

| Base | Amt/Add'l Unit | Effect |
|---|---|---|
| | 1.0 | The customer is charged the full annual rate. |
| | 0.5 | The customer is charged 50% of the annual rate. |
| F | 0.5 | The customer is |

| | | |
|---|---|---|
| | | charged the full annual rate but will receive a 50% discount on next year's rate. |
| B | 1 | The customer is charged the full annual rate, but the renewed through date will be set to the end of next year's term, not this year's term. |
| B | 1.5 | The customer is charged 1.5 times the annual rate and the renewed through date will be set to the end of next year's term, not this year's term. |

**Note:** If you bill once per year, but want to decrease the amount charged a new customer on a quarterly basis, define a 12-month prorating rule and then use identical line entries for each month in a quarter. For example, the line entries for months 1, 2, and 3 would be identical.

Defining special prorating

1. From **Settings**, select **Billing > Configure billing options** to open the **Configure billing options** window.
2. Click **Edit**.
3. Select the **Annual** option under **Billing Time**.
4. Select the **Special Prorating** option under **Prorating**.

5. Click **Save**.
6. Select **Settings > Billing > Billing products**.
7. Click **Prorate Rules** to open the **Prorating** window.
8. Click **New**.
9. (optional) In the **Product** field, rename the rule.
10. In the **Type** field, enter the number of months in the billing period.
11. In the **Description** field, enter a description of the prorating rule.
12. (optional) Enter the **Base Amount** to reflect second-year prorating or an extension of the term to the next year or fixed term.
13. Enter a multiplier in the **Amt/Add'l Unit** field. For example, 50 percent should be entered as .50.

    **Note:** The number of lines in the table must equal the number of months specified by the rule type.

14. Click **Save**.

Defining future credit prorate pricing

The following example shows a normal prorating setup in which the reduction in the rate is postponed until the second term. If a customer joins during months 4-6, the customer will be billed the full amount the first year and 75% the second year.

1. From **Settings**, select **Billing > Billing products** to open the **Billing products** window.
2. Click **Prorate Rules** to open the **Prorating** window.
3. Click **New**.
4. In the **Type** field, enter 12 as the number of months in the billing period.
5. In the **Description** field, enter **New Customers** as the description.
6. Enter a multiplier of 1.0 for months 1-3 in the **Amt/Add'l Unit** field.
7. Enter **F** in the **Base Amount** field and a multiplier of .75 for months 4-6 in the **Amt/Add'l Unit** field.
8. Enter **F** in the **Base Amount** field and a multiplier of .50 for months 7-9 in the **Amt/Add'l Unit** field.
9. Enter **F** in the **Base Amount** field and a multiplier of .25 in **the Amt/Add'l Unit** field for months 10-12.
10. Click **Save**.

Advancing the billing term with Bump Date prorating

In the following example, no prorating occurs until month 7 when a new customer is charged half of the rate. Customers joining in months 11 or 12 pay the full amount and will receive services for a longer term (13- and 14-months respectively).

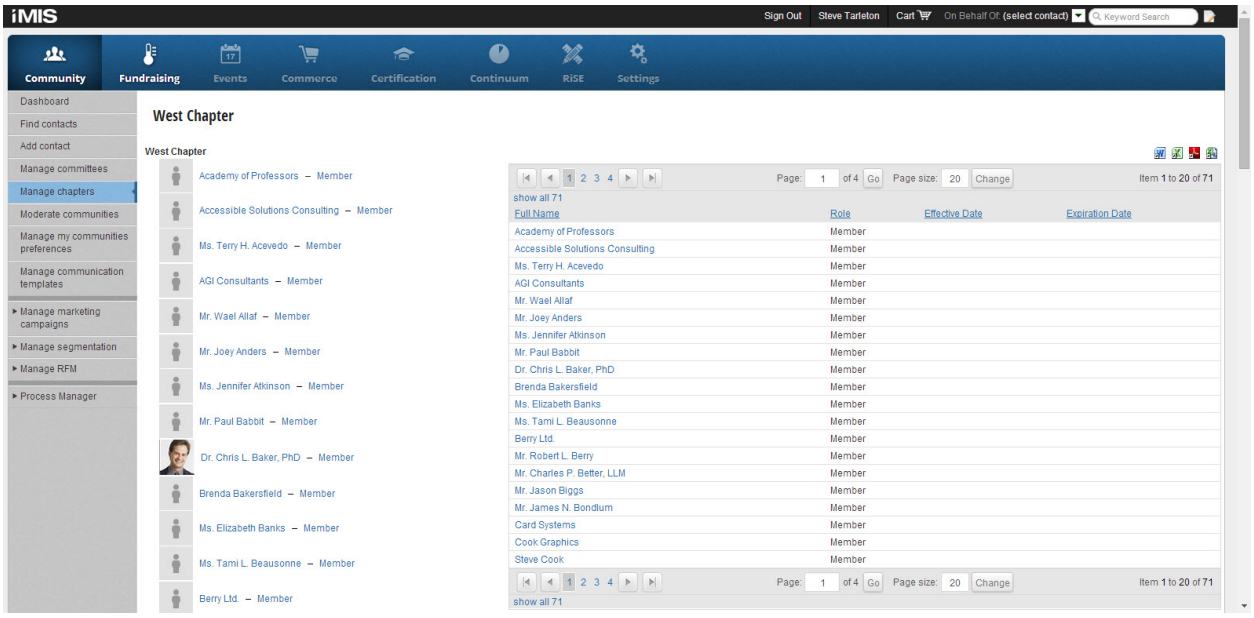
1. From **Settings**, select **Billing > Billing products** to open the **Billing products** window.
2. Click **Prorate Rules**. The **Prorating** window opens.
3. Click **New**.
4. In the **Type** field, enter **12** as the number of months in the billing period.
5. In the **Description** field, enter **New Customers after June 30th** as the description.
6. Enter a multiplier of **1.0** for months 1-6 in the **Amt/Add'l Unit** field.
7. Enter a multiplier of **0.5** for months 7-10 in the **Amt/Add'l Unit** field.
8. Enter **B** in the **Base Amount** field and a multiplier of **1.0** in the **Amt/Add'l Unit** field for months 11-12.
9. Click **Save**.

## Managing chapters

You can manage your chapters and their members directly from the Staff site. Staff users are able to edit roles and perform searches for former and incoming chapter members.

Chapter members will be able to access their chapters directly form the **Member** Quick Start Site. On the initial login page, chapter members will see a link to their chapters. Members can also access their chapters from the **Participation** tab on their profile page.

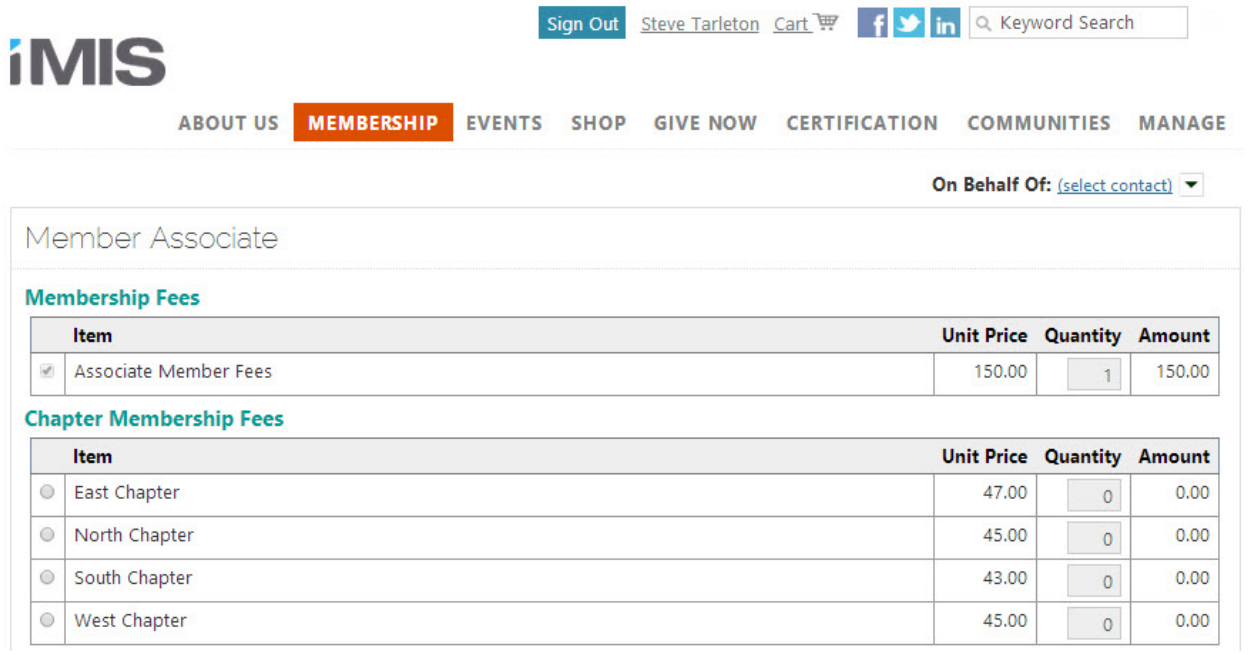
Click to view image




## Adding chapter members

New members are able to select a single chapter when they elect to use Setting up Join Now. When a member renews a membership, the chapter fee is included.

Click to view image



## Assigning the Chapter Administrator role

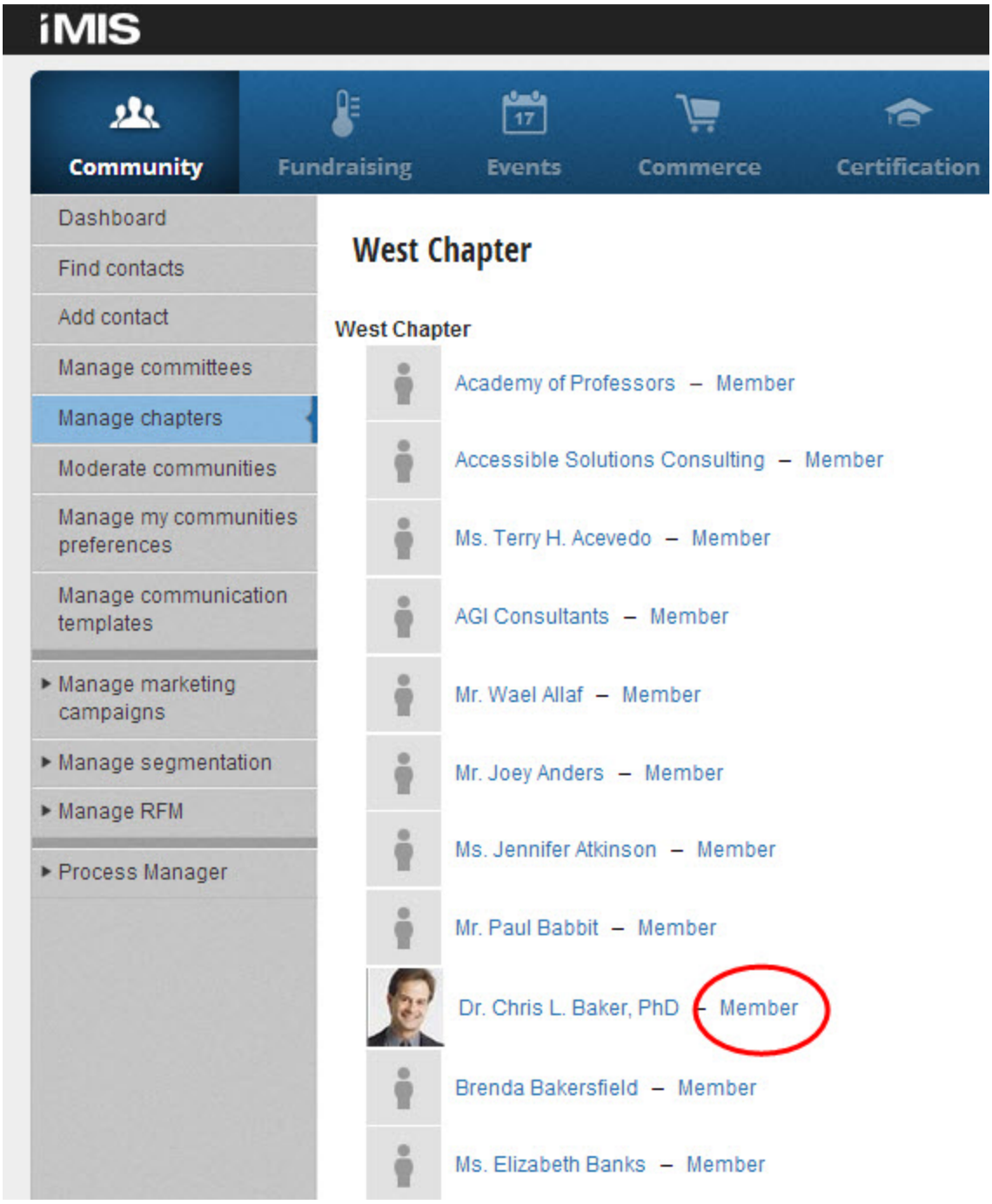
As a Staff user, you can assign the **Chapter Administrator** role to non-Staff members of your chapters. **Chapter Administrators** are able to assign or remove the **Chapter Administrator** role to other chapter members, pay dues on behalf of chapter members, as well as edit chapter member profile pages.

**Requirements**: You must have the Chapter Administrator license key in order to use this feature. Please contact ASI for more information.

To add this role, do the following:

1. Go to **Community** > **Manage chapters**.
2. Navigate to a chapter.
3. Click on the chapter role of an existing member to view their membership details.
4. Click **Add** to add a new role.
5. > **Note:** Staff users can only update term dates through the Advanced Accounting Console.

5. Click **Save** & **Close**.
   Click to view image




## Contacting chapter members

Staff users can send an email to the entire roster of active chapter members. You can also search for other chapter members to send an email using the **Find other members** link.

To send an email, do the following:

1. Go to **Community > Manage chapters**.
2. Navigate to a chapter.
3. Click **Email** to send an email to all active chapter members. You can send emails to other members by clicking the **Find other member** link.
4. Compose your email or load an email template as you would for any communication.

   **Note:** For more information on sending communications in iMIS, see Creating communications with iMIS.

5. Click **Add attachment** and set a communication **Type** if desired.

   **Note:** Staff site Chapter management does not utilize the **No Mail** option available in the Desktop. To provide an opt out option for your committee members, use communication types. For more information, see Managing communication preferences.

6. Click **Preview** and then click **Send Now**.

### Searching for chapter members

Staff users can search for applicants and proposed members who are not yet members of a chapter. The results can be filtered on term date, role, or committee member name.

Do the following to search for committee members:

1. Go to **Community** > **Manage committees**.
2. Navigate to a chapter.
3. From the **Find other members** drop-down, select one of the following queries to view the associated members:

- **Active members**
- **Future members**
- **Past members**
- **Search members**
-

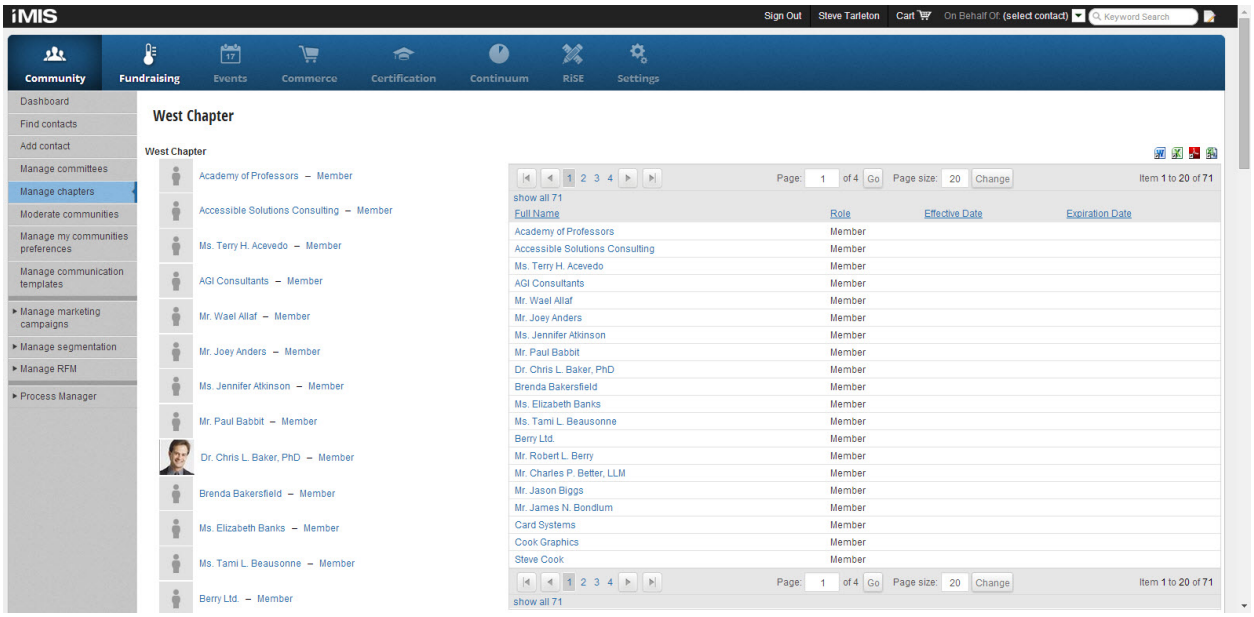
**Note:** You can add custom queries to these folders to search for chapters with a particular status or that belong to a certain group.

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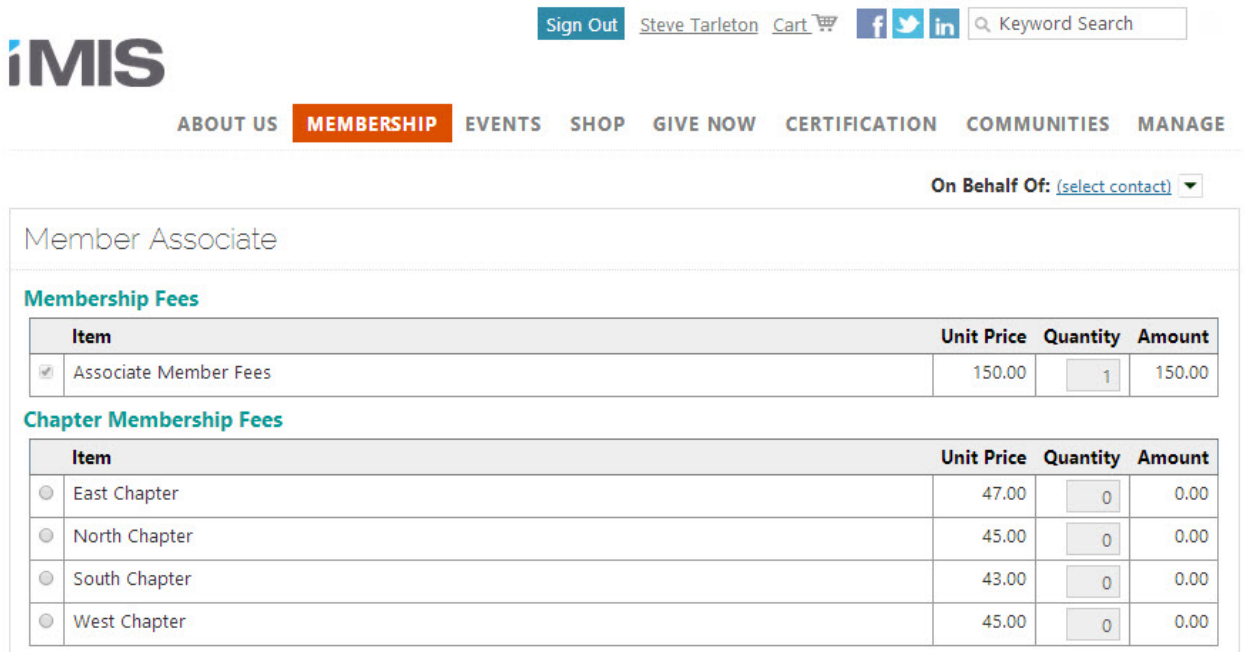
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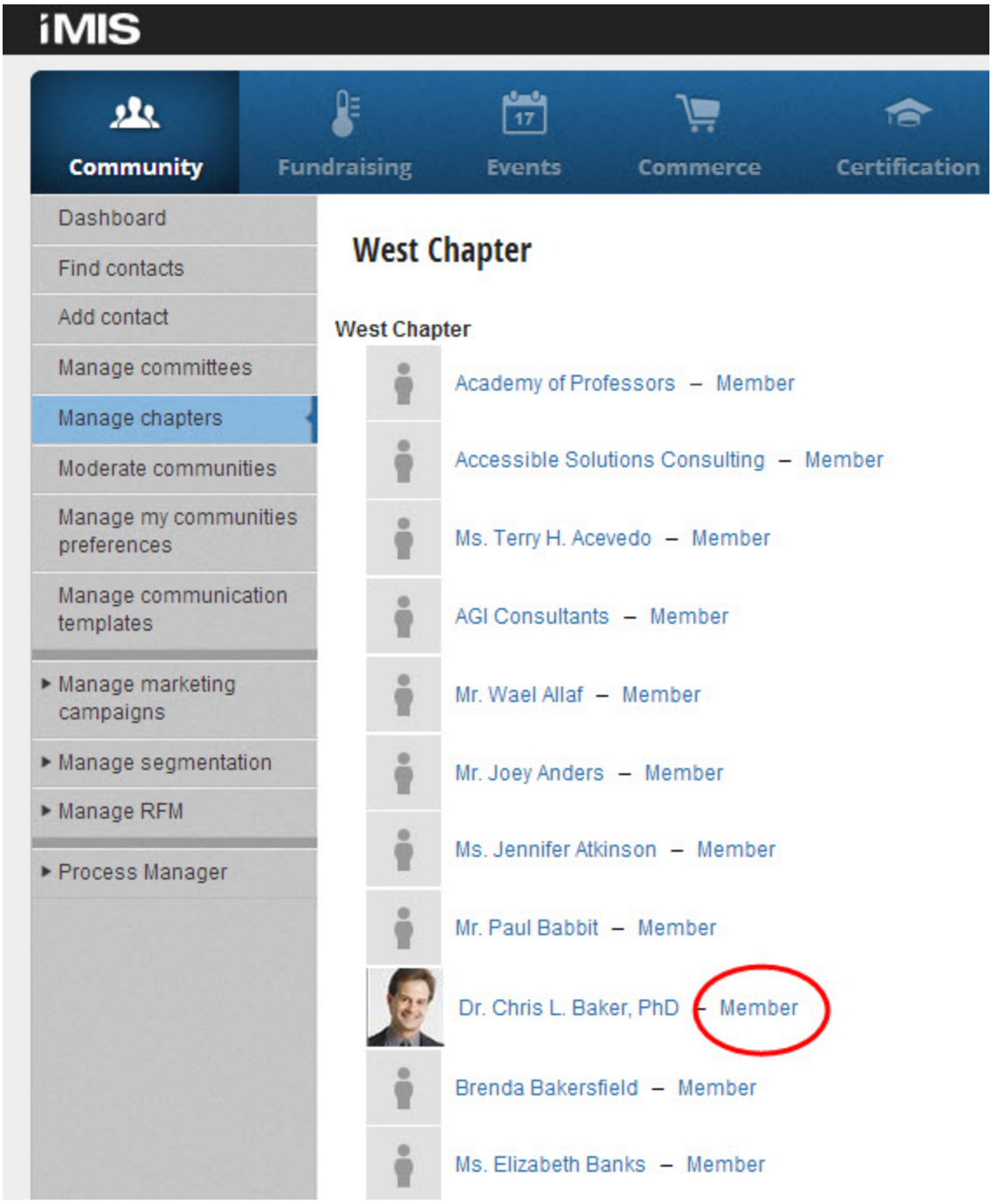

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   **Note:** You can add custom queries to these folders to search for chapters with a particular status or that belong to a certain group.

## Merging contacts

As organization membership expands and changes, contact information might accumulate and be replicated for an individual contact. In order to streamline your contact list, iMIS has added the ability for users to combine or delete unnecessary contact information.

With the Contact Merge, when you discover that two records are duplicates of each other, you can combine two contact records by choosing one content record to retain, and another content record to discard. All information with the retained record is preserved and certain blank values are copied from the discarded duplicate record. Some of the different types of record information that might be merged include:

- **Identity**
- Missing data in the retained record is populated when the data exists for the duplicate record.
- Related data (for example, Physical Address, Phone, Email, or Fax for a specific address) in the retained record is updated when values exist for corresponding related items in the duplicate record.
- Contact ID field values in all related items (for example, Orders, Invoices, Event Registrations, Group Memberships, and so forth) for the duplicate record are replaced with the contact ID of the retained record.
- **Financial**
- All financial information, including order history, orders, billing parties and shipping parties are merged so that the retained record contains the combined history from both records.
- Gift history is recalculated after a merge so that the donor history reflects the combined giving from both records.

  **Note:** Donor club records are neither created nor deleted, and can be duplicated if both records contain qualifying gift history.

- **Activity History**
- Any activity that was associated with the discarded contact record that was not retained is merged with the retained contact.

- If custom activities exist, they are updated after a merge.
  The following items are important to consider when working with the Contact Merge feature:

- In the **Other Memberships** field, iMIS displays groups to which contacts belong. This includes Membership and Subscription groups as well as Chapters, Committees, Event registration rosters, and Relationships.
- In the **Custom Data** field:
- For single instance data sources, you can expand and compare data line-by-line, and any missing data in the retained record is populated when the data exists for the duplicate record.
- For multi-instance sources, you only see the count of how many instances exist for each contact, and the entire record for each instance from the duplicate record is preserved in the retained record after the merge.

- When merged, any permissions that were attached to the **Username** of the discarded contact are given to the retained contact. The **Username** of the discarded contact is deleted, and that login will no longer work. If the retained contact does not have a user account, but the discarded contact does have a user account, then the discarded contact's **Username** will become the retained contact's **Username** after a merge.
-  **Note:** iMIS does not support merging organizations.

  To make sure that important data is not overwritten or otherwise lost, there are also several areas where iMIS might not merge information:

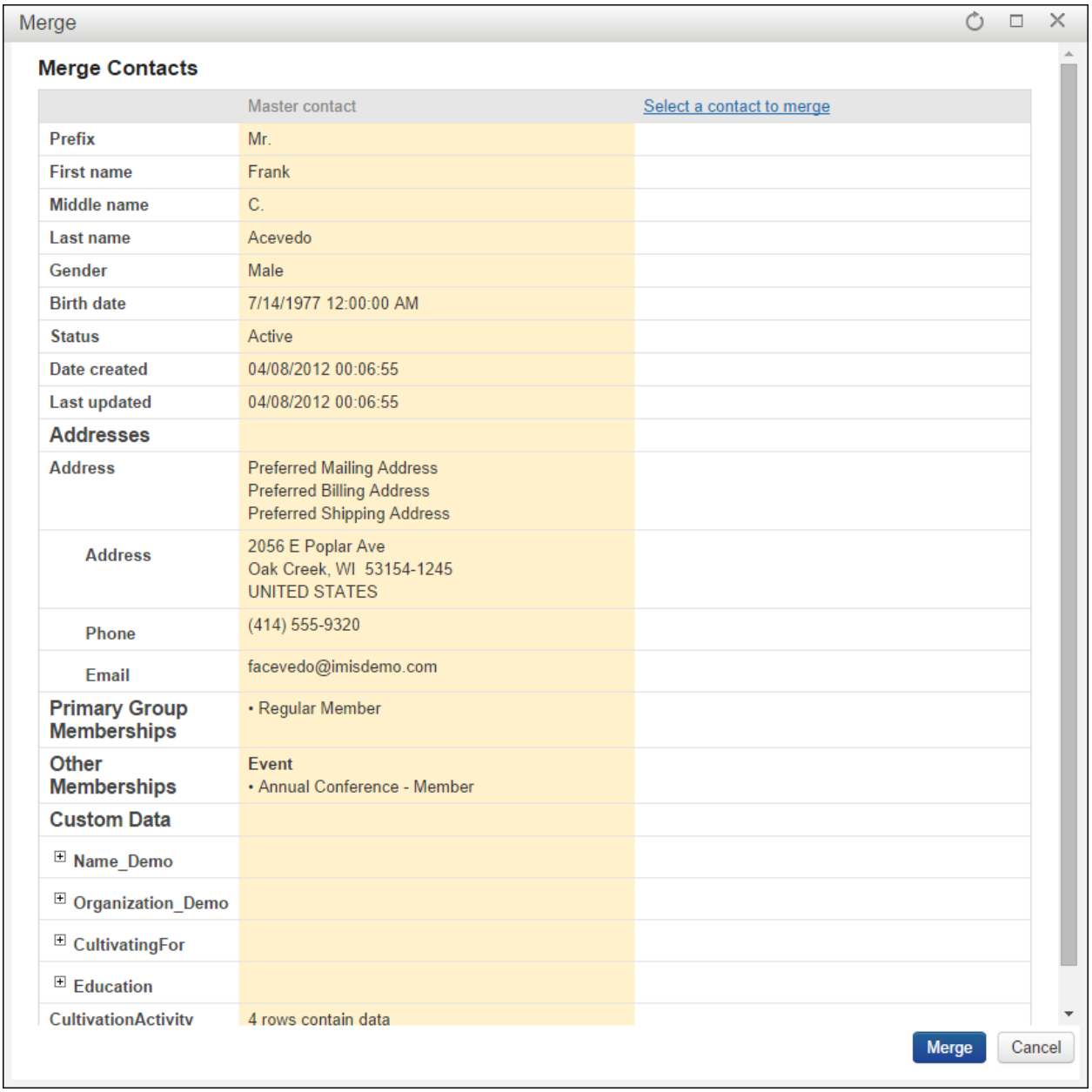
- **Events** -- If two people are registered for the same event, and neither person is canceled, then iMIS does not merge their records. Their records can be merged if one of the individuals cancels their registration.
- **Groups** -- If two contacts are active members in the same Membership or Subscription group, for example, Dues, Chapter, Section, or Subscription:
- If subscription records have overlapping dates, then:
- If the subscription requires payment for membership, iMIS prevents these contacts from being merged.

- If no payment is required for membership, then iMIS allows these contacts to be merged and the membership is extended to the furthest date.
- If subscription records do not have overlapping dates, then iMIS allows these contacts to be merged and the membership is extended to the furthest date.
- If the number of subscription copies specified does not match, then iMIS prevents these contacts from being merged.
- **Certification** -- If two contacts are enrolled in Certification programs, and both contacts are or have ever been enrolled in the same Certification program, then the contacts cannot be merged, regardless of status.

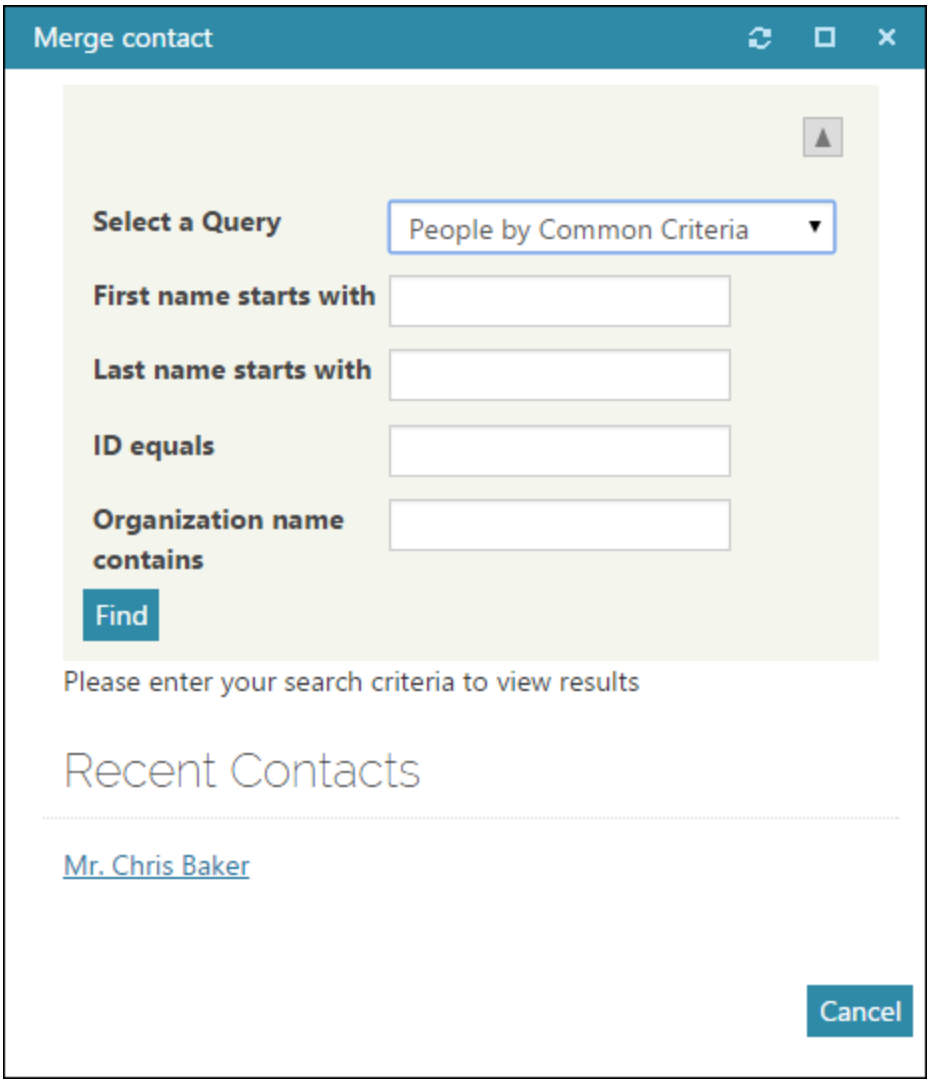
**To merge individual contacts, do the following:**

1. From the Staff site, go to the account page of an individual contact, for example, **Frank Acevedo**.
2. Located under Frank's profile picture, click **Merge**. A **Merge Contacts** window is displayed. The **Master contact** column displays pre-populated information for Frank Acevedo.

   Click to view image

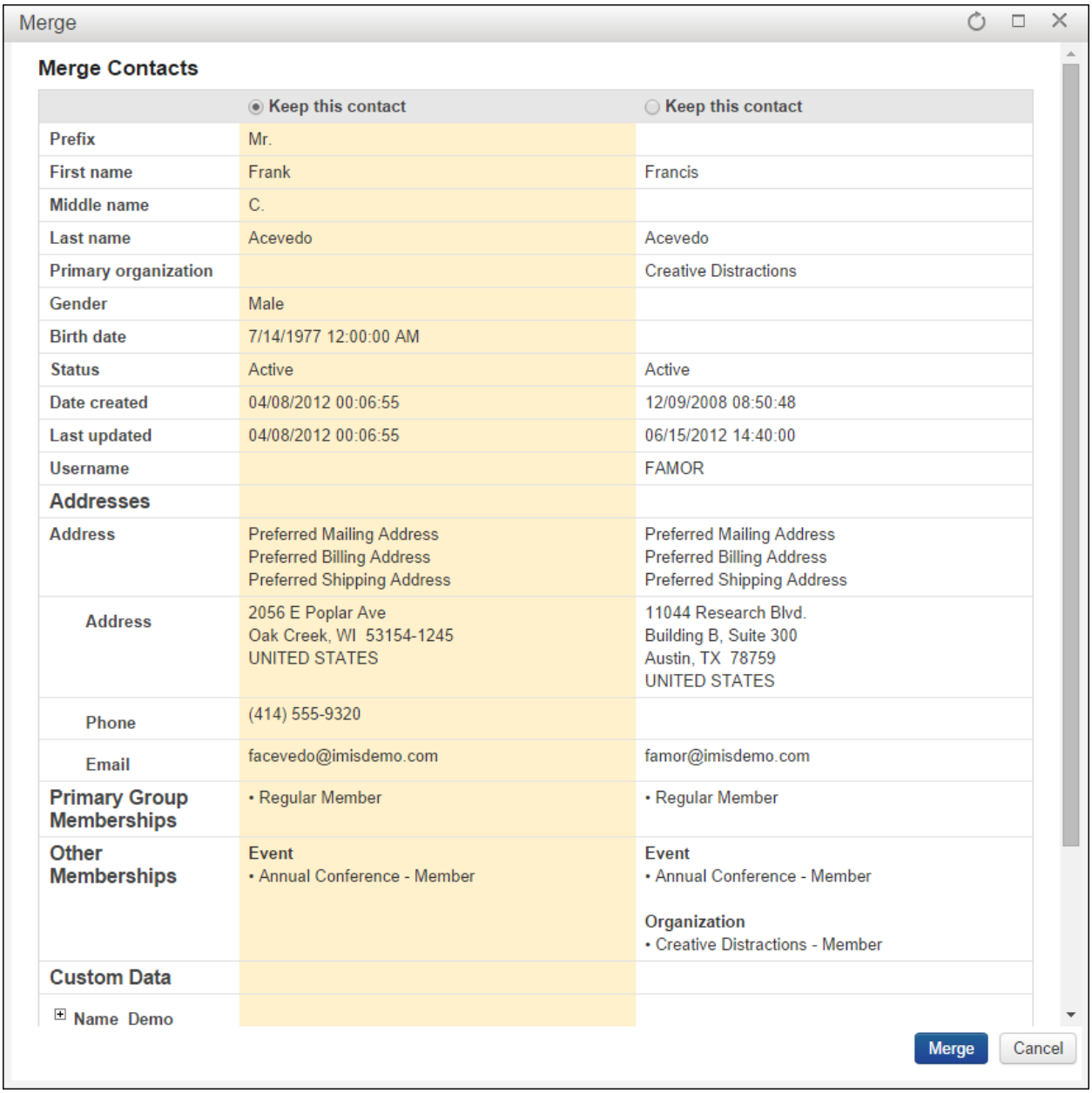



3. Click **Select a contact to merge** to open a **Merge contact** window that allows you to open duplicate records.
   Click to view image




The queries you can access through this window are stored in the **$/ContactManagement/DefaultSystem/Queries/Contacts** folder. These queries can be modified by an Administrator if necessary. However, these queries are the same queries used by the **On Behalf Of** tool. Any modifications made to the queries for a merge will also be reflected in **On Behalf Of**.

4. Search for someone with the last name **Acevedo**. If there is a duplicate contact, select that contact. The column for the duplicate contact will be populated with the duplicate contact's information.
   Click to view image




5. Select the **Keep this contact** radio button for the contact you want to retain. The information from the contact you are not keeping will be merged. If there is an empty field in the kept record, information from the other contact is used to fill the field.

> **Note:** After a contact's record has been merged, a user might see errors when attempting to log in with the merged user credentials. This problem is due to tem-

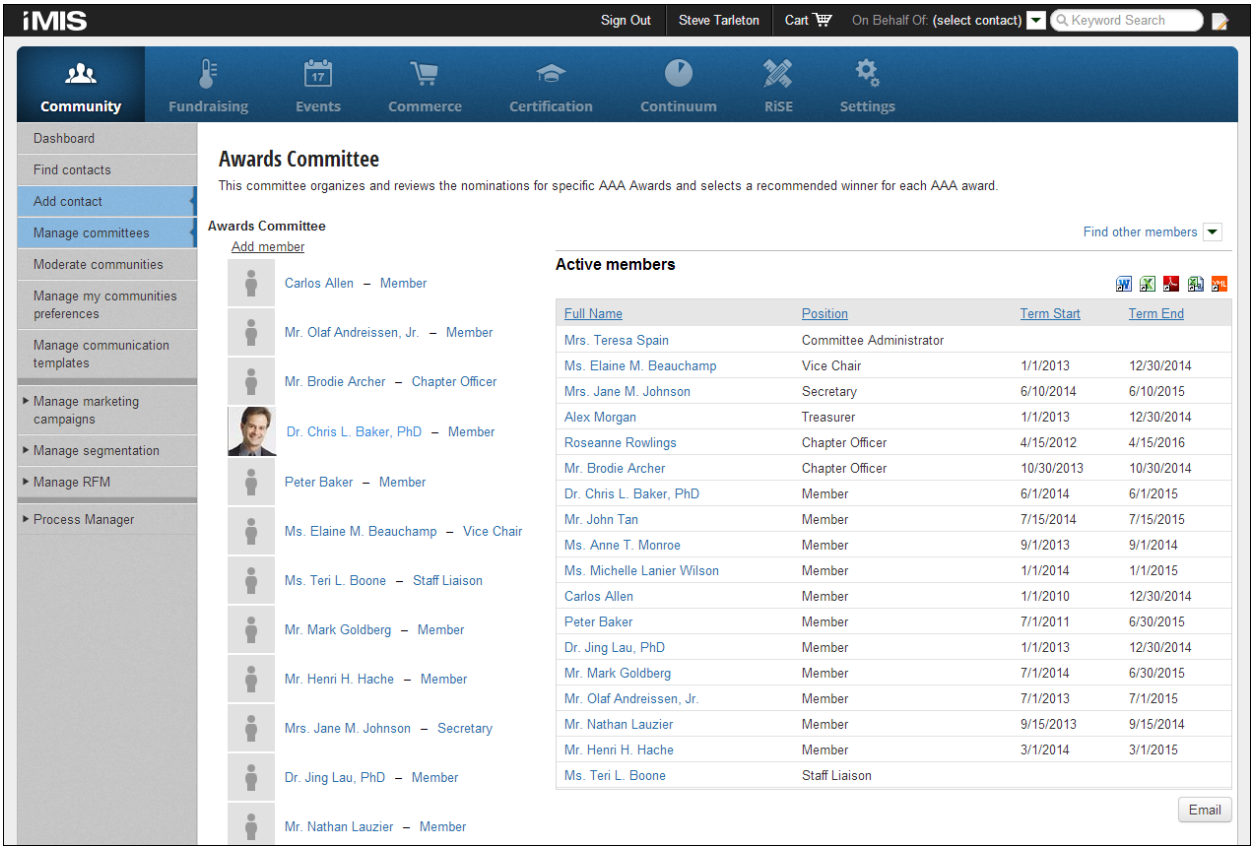
porary caching. These errors will pass after a short timeframe, typically between five and ten minutes.

6. Click **Merge**. The ID number of the contact that was deleted is recorded. The change log also records data changes for any field for which changes are normally tracked.

## Managing committees

You can manage your committees and their members directly from the Staff site. In addition to adding and removing members from your committees, you are able to edit membership terms and roles and perform searches for former and incoming committee members.

Committee members will be able to access their committees directly from the **Member** Quick Start Site. On the initial login page, committee members will see a link to their committees. Members can also access their committees from the **Participation** tab on their profile page.



Adding committee members

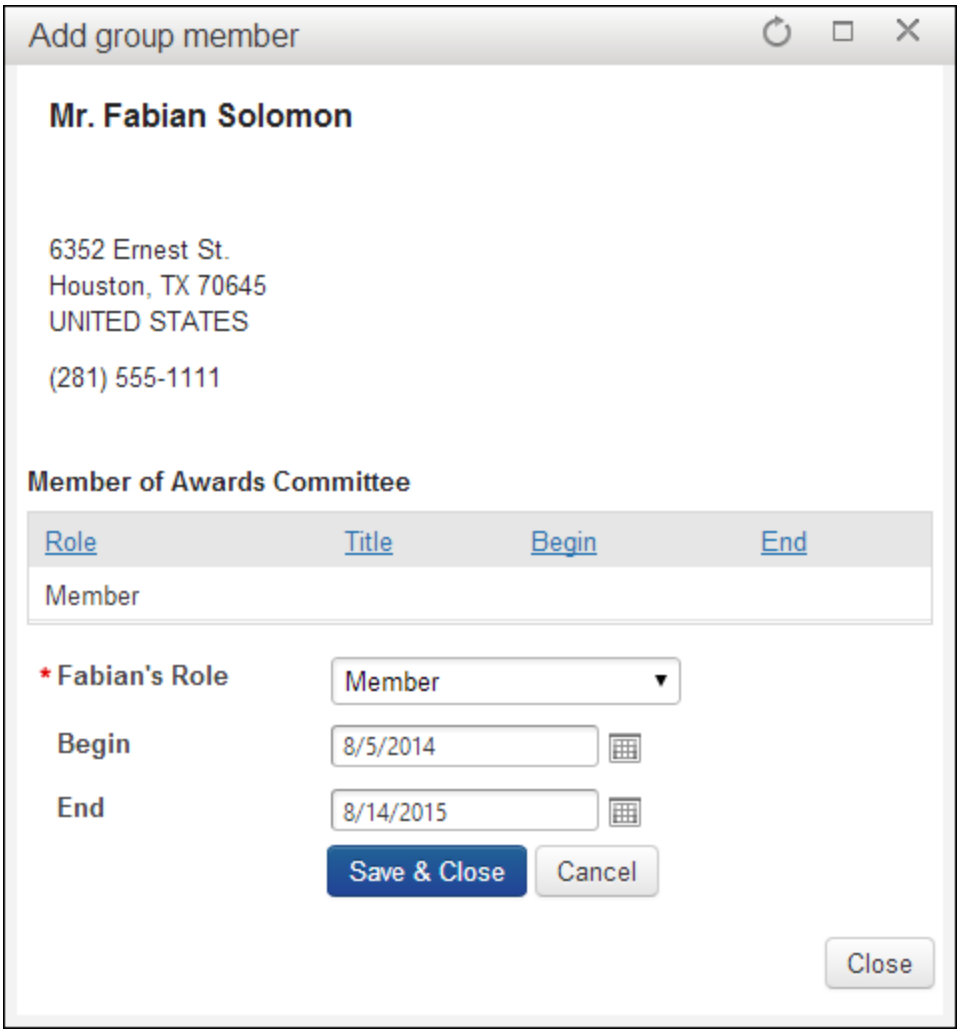
Staff users and Committee Administrators can add new members to a committee. To add new members to a committee, do the following:

1. Go to **Community > Manage committees**.
2. Navigate to a committee.
3. Click **Add member**.

   > **Note:** You can add, edit, and delete active community members only. Staff users are able to search for inactive, past, or proposed committee members using the **Find other members** link.

4. Search for and select the contact to be added to the committee. Alternatively, you are able to add a new contact.
5. Select a **Role** from the drop-down.
6. Enter a **Begin** and **End** date for the committee member's term.

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7. Click **Save & Close**. Your new member will appear in the committee **Active members** list.

Editing committee member roles and term dates

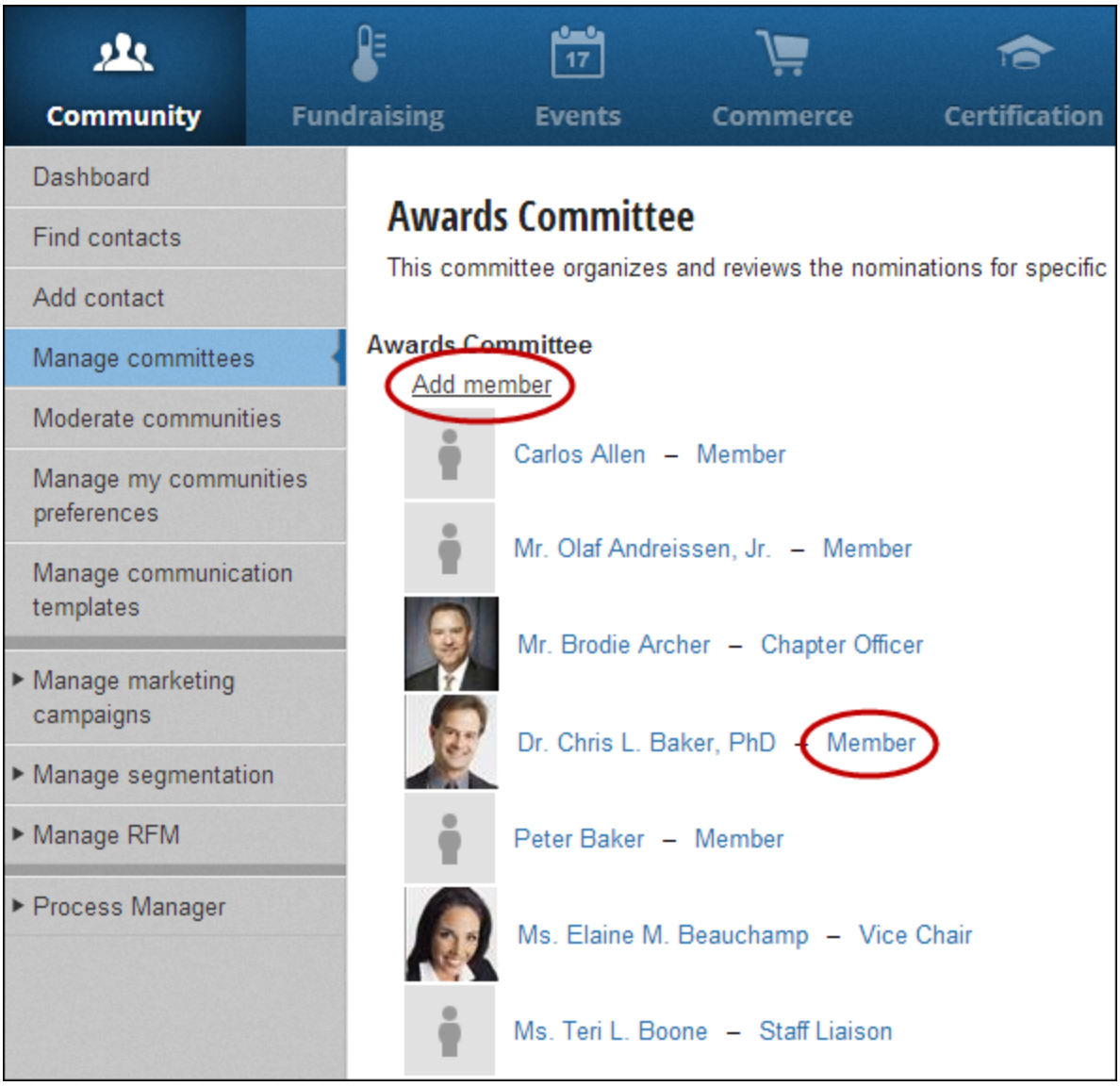
Staff users and Committee Administrators can edit member roles and term dates.

To edit roles and term dates, do the following:

1. Go to **Community > Manage committees**.
2. Navigate to a committee.
3. Click **Add member** or click on the committee role of an existing member to view their membership details.

> **Note:** Clicking on the name of the member will open their staff account page.

Click to view image




4. Click **edit** to make adjustments to a current membership term.
5. Click **Add** to add a new role or term.
6. Click **Save & Close**.

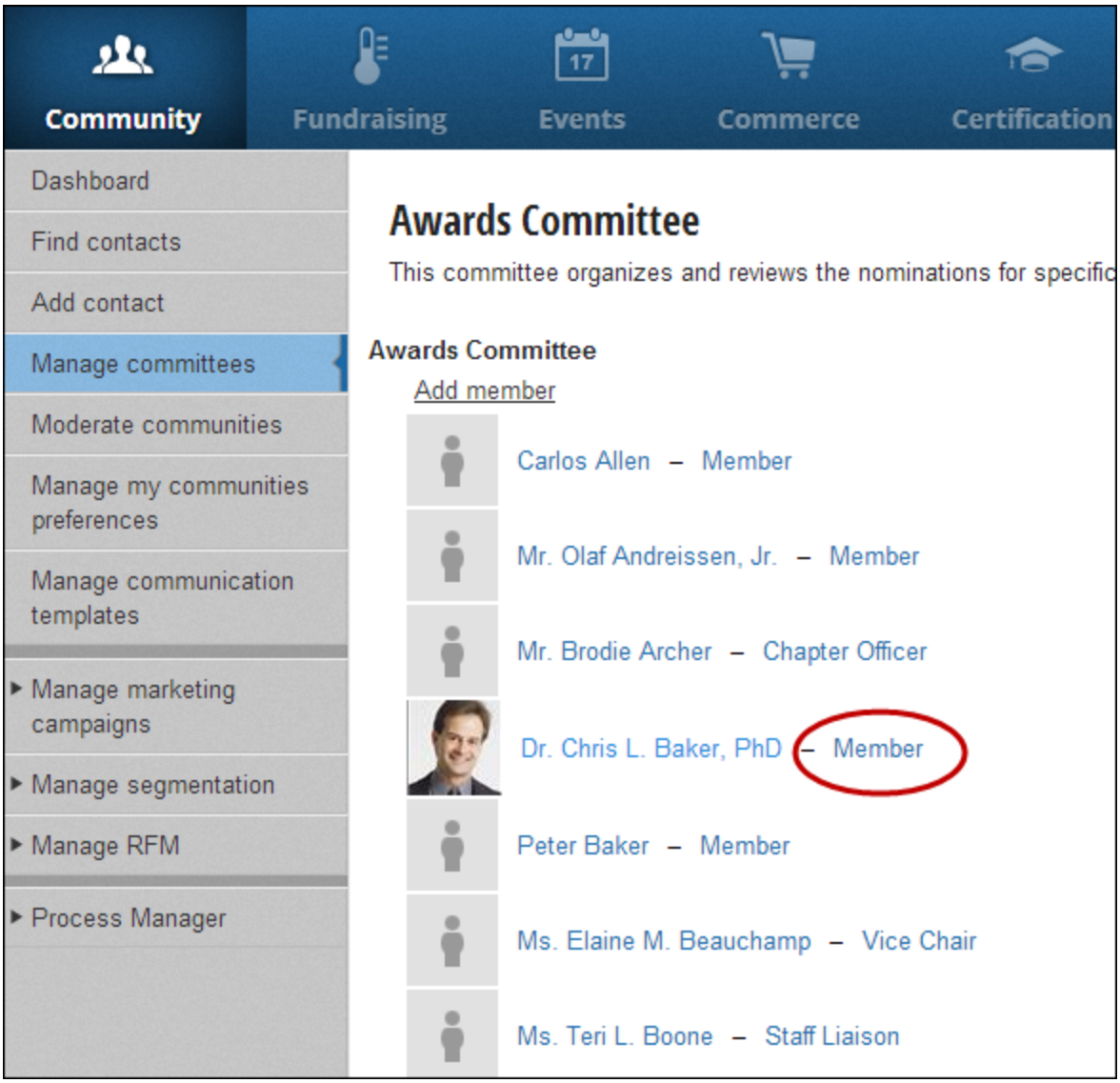
Assigning the Committee Administrator role

As a Staff user, you can assign the **Committee Administrator** role to non-Staff members of your committees. Committee Administrators are then able to assign the **Committee Administrator** role to other committee members. Committee Administrators are able to:

- Add committee members (existing contacts and new contacts)
- Assign **Committee Administrator** role to an existing member (by either editing a committee member's existing roles, or adding an additional role for a committee member)
- Update committee membership (edit the current roles assigned to a committee member)

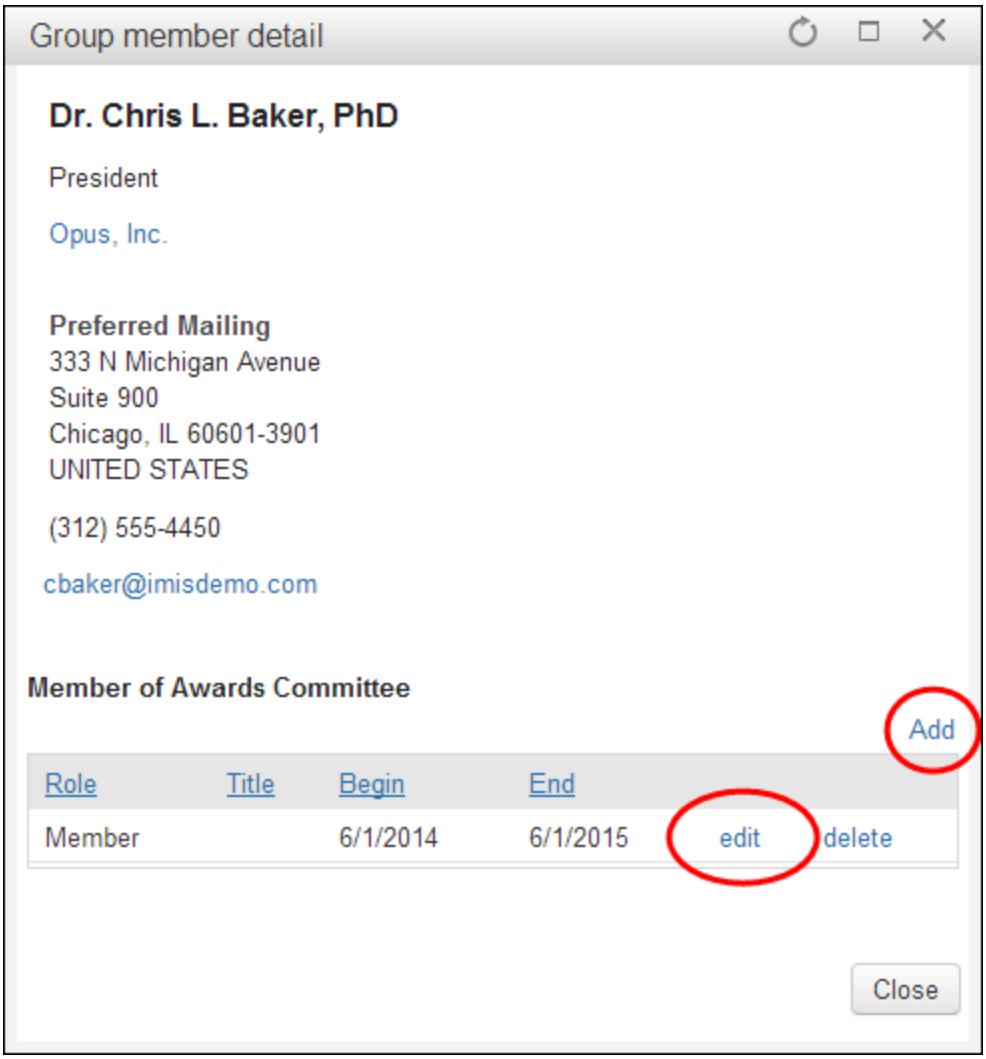
Do the following to assign a Committee Administrator role to a committee member:

1. Go to **Community > Manage committees**.
2. Navigate to a committee.
3. In the committee roster on the left of your committee landing page, find the committee member to which you want to assign the Committee Administrator role.
4. Click the role of an existing member.
   Click to view image




The **Group member detail** window is displayed.

5. Click **Add** to add a new Committee Administrator role to this member, or click **edit** to edit the existing role.
   Click to view image




6. Select the **Committee Administrator** role from the drop-down.
7. Enter a **Begin** and **End** date for the committee member's term.

Contacting committee members

Staff users can send an email to the entire roster of active committee members. You can also search for other committee members to send an email using the **Find other members** link.

To send an email, do the following:

1. Go to **Community > Manage committees**.
2. Navigate to a committee.

3. Click **Email** to send an email to all active committee members. You can send emails to other members by clicking the **Find other members** link.
4. Compose your email or load an email template as you would for any communication.

> **Note:** For more information on sending communications in iMIS, see Creating communications with iMIS.

5. Click **Add attachment** and set a communication **Type** if desired.

> **Note:** Staff site Committee management does not utilize the **No Mail** option available in the Desktop. To provide an opt out option for your committee members, use communication types. For more information, see Managing communication preferences.

6. Click **Preview** and then click **Send Now**.

Searching for committee members

Staff users can search for applicants and proposed members who are not yet members of a committee. The results can be filtered on term date, role, or committee member name.

Do the following to search for committee members:

1. Go to **Community > Manage committees**.
2. Navigate to a committee.
3. From the **Find other members** drop-down, select one of the following queries to view the associated members:

- **Active members**
- **Future members**
- **Past members**
- **Search members**

> **Note:** Committee settings defined in Desktop, such as **Show on web** and **Paid thru validation** do not apply to the staff site. The only committees defined through the Desktop that will show on the web are those with no status or with a status of **A**.

> **Note:** You can add custom queries to these folders to search for committees with a particular status or that belong to a certain group.

Deleting Committee members

Only Staff users can delete existing committee member roles or remove members from a committee. To delete a committee member, do the following:

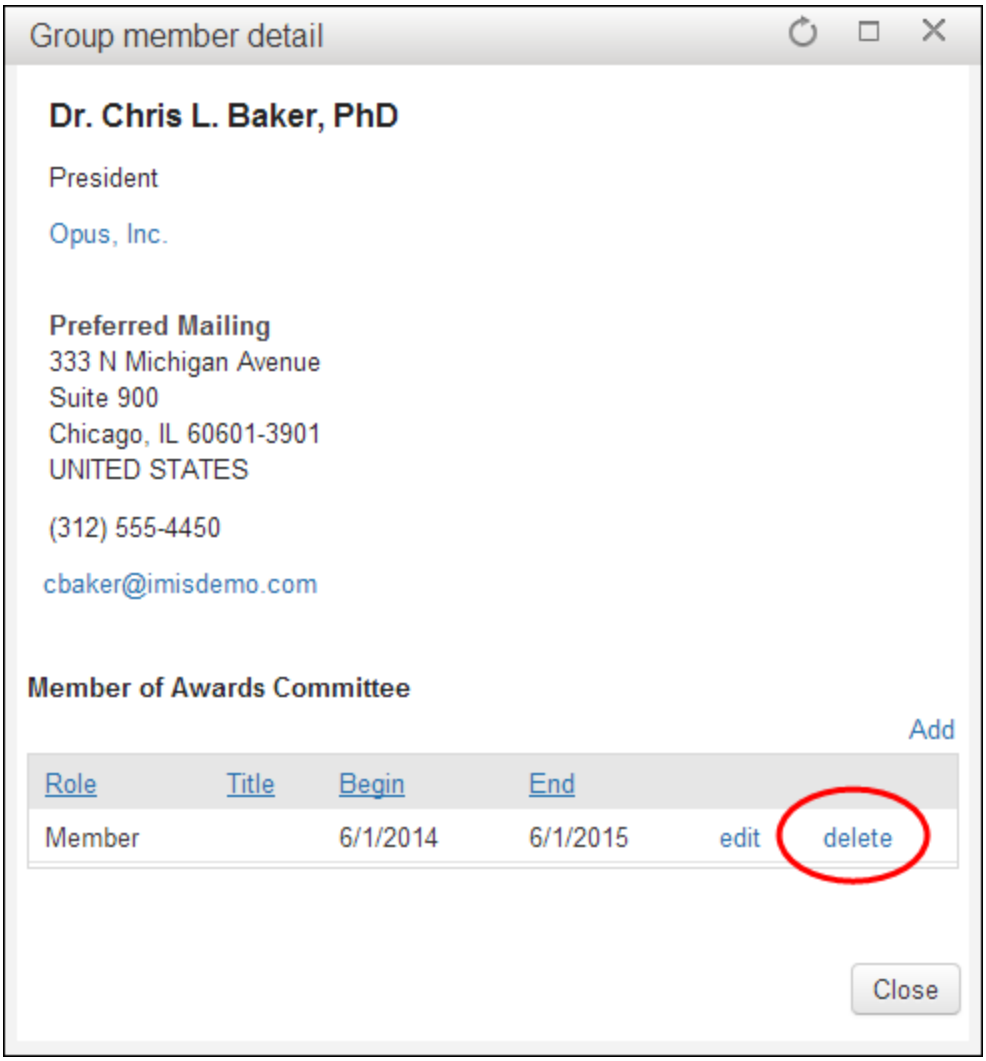
1. Go to **Community > Manage committees**.
2. Navigate to a committee.
3. Select the role of an existing member to view their membership details.

> **Note:** Clicking the name of the member will open their staff account page.

4. Do one of the following to delete a committee member:

- Click delete next to all roles for a committee member to completely remove them from the committee.
- Edit the term's **Begin** or **End** dates for the member. If the member's term is not current, they will no longer display as an active member of the committee, but their information will still be available.

Click to view image




## Automatic membership renewals

**AutoPay** provides the ability for organizations to use a tokenization engine to process credit card and bank account information for recurring payments while maintaining PCI compliance.

AutoPay provides organizations the ability to support automatic renewal of membership fees and recurring donations. AutoPay uses a tokenization engine to process credit card and bank account information for recurring payments while maintaining PCI compliance.

**Note:** In order to use AutoPay for recurring payments, you must have a license key. Contact ASI for more information.

AutoPay is available in the **Join Now** and **Give Now** pages of your website. Using Staff site settings, you can set your website to invite the member and donor to opt in or out of automated renewals, or even have the option switched on for all new members and donations.

Members can opt in when they join or when they renew. Members who have opted in to Automatic membership renewals still have the option to pay by alternate means of payment when renewing or opt out altogether.

When making a donation online, donors are invited to make Recurring donations with monthly, quarterly or annual payments. Staff users can cancel payments at the donor's request.

> **Note:** AutoPay is available only for billing items set up with an **accrual** accounting method.

The following are required in order to use AutoPay:

- An AutoPay license key. Contact ASI for more information.
- A tokenization engine (iMIS-hosted or self-hosted)
- **Payflow Pro** payment gateway account

Some key features and benefits of AutoPay include:

- Offering members and donors the choice of easy, automated payments.
- Maximizing member and donor retention with automated renewals and recurring donations.
- Enabling staff to discontinue automatic payments for members or donors at any time.
- Using settings in the Staff site to set automatic payment options in the join or renewal process as off, opt-in, opt-out, always on or required.
- Using settings in the Staff site to set recurring donation options in the online Give Now pages as either off, opt-in, opt-out or always on.
- Differentiating between automatic and non-automatic renewals so your members are billed accurately.
- Staff manually adding members to the automatic membership renewal program.

- Staff previewing membership fees and donations to be collected, and submit for collection.
- Securely storing credit card details in a PCI-compliant manner.

## Automated membership renewals

When a prospect decides to become a new member, they use **Join Now**. Automatic payments takes **Join Now** one step further and allows your members to elect to automatically pay future renewals during their initial payment process.

Existing members are able to enroll in automatic payments when it's time for them to renew as well. When a membership is due for renewal, the account page will provide a **Renew Now** button. This renewal will allow your member to add the new invoice to the cart and make a one-time payment, update their stored credit card information, or, if enabled, they will be able to enroll in automatic payments.

If a member has elected to automatically renew their membership already, no additional steps are required. The button and instruction serve as a reminder that their membership will be renewed automatically.

> **Note:** The initial transaction for a customer will populate AutoPay-related tables with the information needed to interact with your tokenization engine.

Setting up automated membership renewals

To use AutoPay, you must initially configure the Staff site for automatic membership renewals.

> **Note:** In order to use AutoPay you must have a license key. Contact ASI for more information.

Why doesn't "Automatic Payments" display on my Commerce menu when my site is licensed and configured for AutoPay?

If your site is licensed for AutoPay and you have followed the configuration steps outlined here, you may just need to re-publish the Staff site's Sitemap to get the "Automatic Payments" navigation to display on the Commerce menu.

1. In the Staff site, go to **RiSE > Site Builder > Manage Sitemaps**.
2. Select the **Staff** site from the drop-down list of sites in the left pane.
3. Click **"Publish"** in the top gray bar.
   Now the Automatic Payments navigation (and sub-navigation items) should display on your Commerce menu.

Configure membership renewals

1. In the Staff site, go to **Settings > Commerce > General**.
2. Enter the **AutoPay service address**. This is the address to the tokenization engine. You must have access to a tokenization engine in order to perform recurring transactions.
   Enter the AutoPay service address in the following format:
   `https://localhost/DataVault0`

   Where *localhost* is the name of a server and *DataVault0* is the web site alias.

   > **Note:** Contact ASI Hosting for more information about the iMIS-hosted tokenization engine.

3. Select the **Automatic payments for billing renewals** option:

- **(None)** – No option selected.
- **Allow users to enable** – Users can enable automatic payments.
- **Disabled** – Automatic payments are not allowed.
- **Enabled by default** – Automatic payments are enabled by default.
- **Required** – Automatic payments are required.

4. **Save** these settings.
5. Go to **Settings > Commerce > Automatic payment gateways**.
6. Enter your gateway information and click **Save**.

- **Payflow Pro**
- **Organization name** – Your iMIS organization name.
- **Default for payment type** – Select the default payment type for this gateway:
- **(None)**
- **Credit Cards**
- **Gateway name** – The selected gateway.

- **Partner** – The Payflow Pro partner name that was obtained when you created your account.
- **Vendor** – The Payflow Pro user name.
- **User** – The Payflow Pro user name.
- **Password** - The password you were given by the gateway provider during the sign-up process.
- **Host address** – Enter the host address for the PayflowPro Gateway.

Configuring your cart for recurring memberships

Prospective members can elect to enroll in recurring membership renewals when they join your organization or renew their membership. When members select this option, their membership is paid through AutoPay when their renewal is billed.

In order to offer automatic payment of membership renewals, your Cart content should include an **Auto Pay Instructions Creator** content item. This content item is displayed to website users only when there is a **Join Now** product or an accrual renewal invoice in the Cart. If your Cart does not already include the **Auto Pay Instructions Creator** content item, edit the Cart content record to add this content item in the location you would like it to appear on the Cart page. See Creating Dynamic Content Items for more information.

Processing automatic membership renewals

When the membership renewal invoices become available in the future, you will have to do the following to process the membership renewals.

Generate and submit a batch for renewals

1. In the Staff site, go to **Commerce > Automatic payments > Process renewal payments**.
2. On the **Submit payments** tab, enter a **Due for collection on or before** date for all invoices due for collection. This date refers to all unprocessed invoices due for renewal leading up to the due date you select.
3. Click **Find**. A list of all of the invoices matching your criteria will appear as a batch.
4. Click **Submit invoices for payment**. You will receive a notice that the batch has been submitted.

Review submitted batches

1. On the **Retrieve processed payments** tab, update iMIS to incorporate payments that have been processed. Select your desired batch.

> **Note:** By default, batches are arranged with the most recently created batch first.

2. Review the detailed list of invoices.
3. Click **Retrieve processed payments**. This will refresh your batch detail report. The results of your batch processing are displayed. The values in the **Result** column are marked **Completed** when payments are successful.

Review submitted renewal payments

1. In the Staff site, go to **Commerce > Automatic payments > Review renewal payments**.
2. Search for completed automatic renewal payments using your desired parameters.
3. Review records for invoice number and other payment details.

Modifying an existing membership renewal

Staff users can edit the automatic payment instructions for membership renewals. Staff users can cancel currently active membership renewals, or reactivate previously cancelled membership renewals.

1. Go to **Commerce > Automatic payments > Payment instructions**.
2. Search for a membership renewal. You can search by **First name**, **Last name**, iMIS **ID**, or **Type**. You can also click **Find** to see all automatic payment instructions.
3. Click the name on the membership renewal you want to edit.
4. Click **edit**.
5. You can change the **Status**:

- **(Select)**
- **Active** – Activate a previously cancelled automatic payment.
- **Cancelled** – Cancel an automatic payment.

6. Enter the date you cancelled the membership renewal, as well as a reason for the cancellation.
7. Click **Save & Close**.

## Automatic membership renewals

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1. In the Staff site, go to **Settings > Commerce > General**.
2. Enter the **AutoPay service address**. This is the address to the tokenization engine. You must have access to a tokenization engine in order to perform recurring transactions.
   Enter the AutoPay service address in the following format:
   `https://localhost/DataVault0`

   Where *localhost* is the name of a server and *DataVault0* is the web site alias.

   > **Note:** Contact ASI Hosting for more information about the iMIS-hosted tokenization engine.

3. Select the **Automatic payments for billing renewals** option:
   - **(None)** – No option selected.
   - **Allow users to enable** – Users can enable automatic payments.
   - **Disabled** – Automatic payments are not allowed.
   - **Enabled by default** – Automatic payments are enabled by default.
   - **Required** – Automatic payments are required.
4. **Save** these settings.

5. Go to **Settings > Commerce > Automatic payment gateways**.
6. Enter your gateway information and click **Save**.

- **Payflow Pro**
- **Organization name** – Your iMIS organization name.
- **Default for payment type** – Select the default payment type for this gateway:
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- **Credit Cards**
- **Gateway name** – The selected gateway.
- **Partner** – The Payflow Pro partner name that was obtained when you created your account.
- **Vendor** – The Payflow Pro user name.
- **User** – The Payflow Pro user name.
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Generate and submit a batch for renewals

1. In the Staff site, go to **Commerce > Automatic payments > Process renewal payments**.
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1. On the **Retrieve processed payments** tab, update iMIS to incorporate payments that have been processed. Select your desired batch.

   **Note:** By default, batches are arranged with the most recently created batch first.

2. Review the detailed list of invoices.
3. Click **Retrieve processed payments**. This will refresh your batch detail report. The results of your batch processing are displayed. The values in the **Result** column are marked **Completed** when payments are successful.

Review submitted renewal payments

1. In the Staff site, go to **Commerce > Automatic payments > Review renewal payments**.
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3. Review records for invoice number and other payment details.

Modifying an existing membership renewal

Staff users can edit the automatic payment instructions for membership renewals. Staff users can cancel currently active membership renewals, or reactivate previously cancelled membership renewals.

1. Go to **Commerce > Automatic payments > Payment instructions**.
2. Search for a membership renewal. You can search by **First name**, **Last name**, iMIS **ID**, or **Type**. You can also click **Find** to see all automatic payment instructions.
3. Click the name on the membership renewal you want to edit.
4. Click **edit**.
5. You can change the **Status**:

- **(Select)**
- **Active** – Activate a previously cancelled automatic payment.
- **Cancelled** – Cancel an automatic payment.

6. Enter the date you cancelled the membership renewal, as well as a reason for the cancellation.
7. Click **Save & Close**.

### Backdating cash and check transactions

You may frequently receive transactions, such as product orders, membership joins, and event registrations, through the mail or over the phone. In these cases, the payment is often deposited before a staff member can enter the transaction into iMIS, but you need the transaction date in iMIS to match the true date of the transaction. To accomplish this task, staff users can easily backdate their own and **On Behalf Of** cash and check transactions.

> **Note:** You cannot backdate transactions that use gateway payment methods, such as credit cards and PayPal.

The entered transaction date is used as the order date, payment date, and the date of all journal entries. If a dues product is purchased, the entered transaction date overrides the system date as the membership join date.

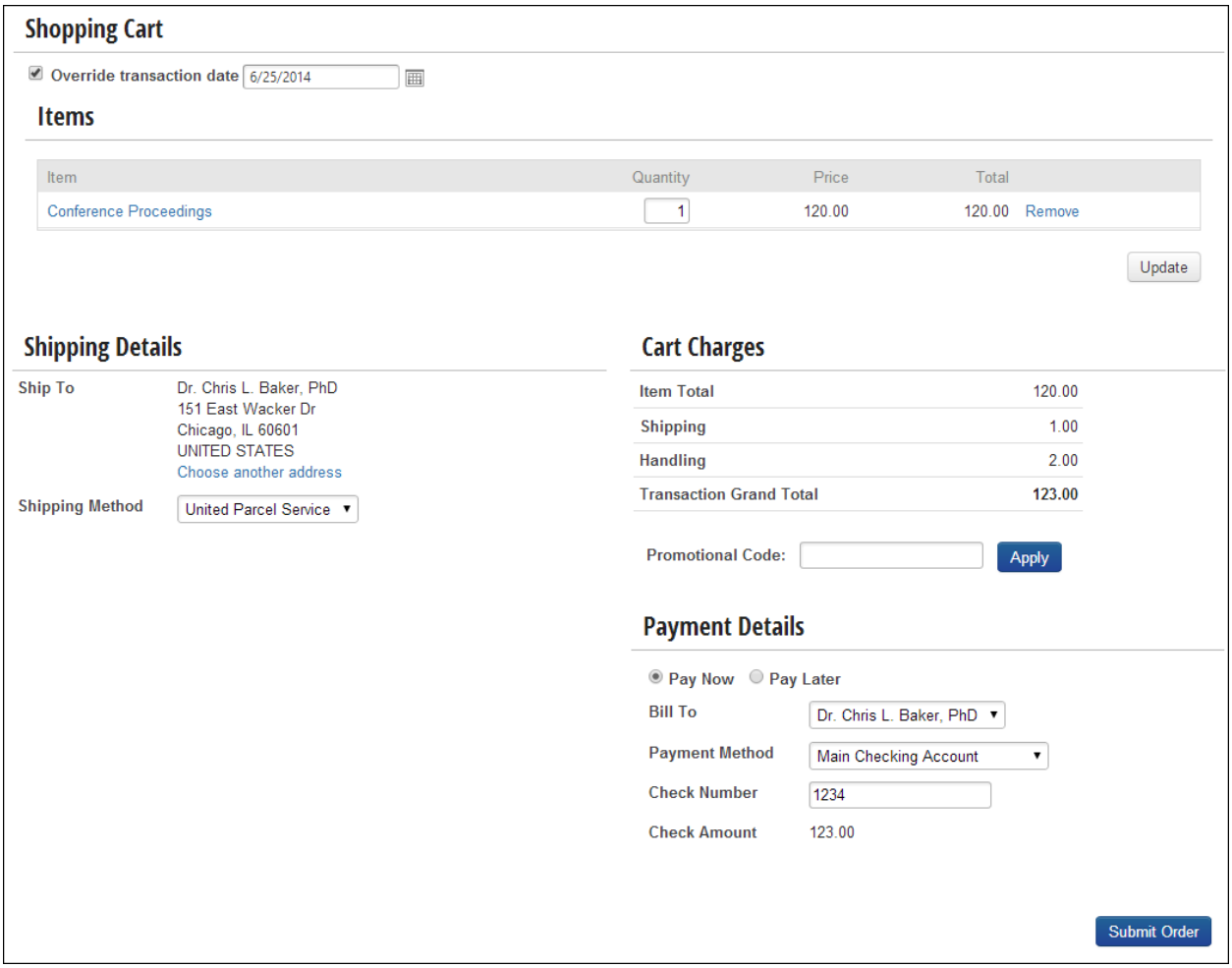
The transaction is added to an open batch for the entered transaction date. If all batches for that date are closed, a new open batch for the date is automatically created. For more information on batches, read the Managing automatic batches from the Staff site article.

To backdate cash and check transactions:

1. Go to the Staff site or the Member site.
2. Navigate to the cart.
3. Select **Override transaction date** and enter the correct transaction date.
4. Select to work **On Behalf Of** the contact making the transaction.
5. Add the item purchased by the contact to the cart.
6. Proceed to checkout (i.e., navigate to the cart).
7. Enter the appropriate payment details.

a. Choose to **Pay Now** or **Pay Later**.
b. Select a non-gateway payment method, such as a checking account. If you select a gateway payment method, such as a credit card, you will receive an error message.
c. If requested, enter the **Check Number**.

Click to view image




7. Submit the order.

> **Warning!**
>
> When you change the transaction date, the newly entered date persists to each transaction you enter that uses a non-gateway payment method in the same session.

## Configuring billing options

Setting up general billing options

1. In the Advanced Accounting Console, go to **Settings > Billing > Configure billing options**.
2. From the **Configure billing options** window, click **Edit**.
2. Enter the **Standard Billing Interval** in months.
3. Select an **Accounting Method**. If **Accrual** is selected, additional options display in the **Paid Thru Date Update** section and the **AR Payment Application** section displays. You must make selections in these areas.
4. Select a **Billing Time**.
5. Select an appropriate **Prorating option**.
6. 

> **Note:** Prorating applies only when you want to bill on an annual or fixed-term basis, as opposed to an anniversary or rotating term basis. If billing is done for all products (for example, all fees and product billings) on an anniversary basis, you must enable the **Do Not Prorate** option.

6. (optional) Enable the **Update Complimentary Items at Payment Time** option if you want to advance the Paid Thru date of complimentary products at payment time instead of at billing time.
7. (optional) Select the **Start Date Control** options to advance the Bill Begin day by one month and create a new billing term.
8. Enable or disable the **Cash Dues Over/Under Payments Create AR** option.
9. Enable or disable the **Maintain Prev. Balance** option.
10. Click **Save**.

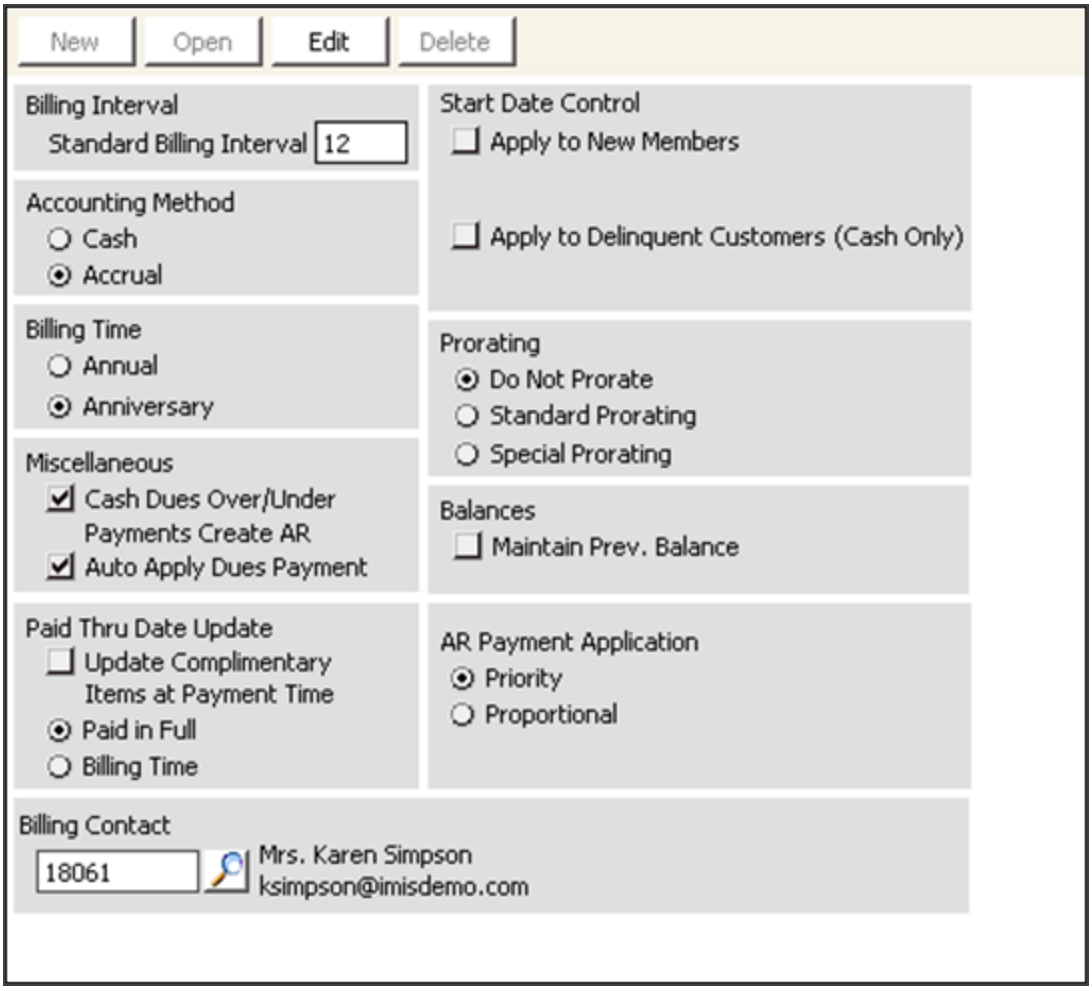
> **Note:** If **Annual** is chosen as the **Billing Time**, be sure to open the **Configure accounting options** window (go to **Finance > Options > Configure accounting options**) and enter the calendar month (numeric) that represents either your fixed-term or fiscal year in the **First month of fiscal year (number)** field.

> **Note:** If **Special Prorating** is selected, define the product codes as discussed previously and then see Defining Prorating Rules to establish the special pro-rating table rules.

Working in the Configure billing options window

In the Advanced Accounting Console, go to **Settings > Billing > Configure billing options**.

Click to view image




**Billing Interval**

**Standard Billing Interval** – The billing interval controls the frequency with which you will normally generate bills. You can override the billing interval at the individual customer level, at the product level, or at the individual subscription level. Choose the billing interval as a number of months from 1(monthly), 2(bimonthly), 3(quarterly), 6 (semi-annual), 12 (yearly), or 24 (every 2 years).

> **Note:** The number entered in the **Standard Billing Interval** field affects billing rates. Unless the billing interval is overridden at the product level, the dollar amounts entered for the products should be in accordance with the Standard Billing Interval. See Set up products window for Billing for detailed information on products.

Start Date Control

> **Note:** If there are no **Start Date Control** options implemented, the **New Bill From** field on the **Dues/Subscription Payments** window defaults to the first day of the current month. See Date Usage in iMIS.

Determines whether the Bill Begin date should be advanced by one month. **Start Date Control** can be used to advance the start date of newly billed items or to specify a grace period for delinquent customer products. If implemented, the Bill Begin date will be controlled according to the following options:

- **Apply to New Members** – This option enables you to automatically advance the subscription begin date for new customers according to the parameter set in the **Advance Start Month** as of field.
- **Advance Start Month as of** – (Displays once you enable the **Apply to New Members** or **Apply to Delinquent Customers** option.) This option is a user-defined parameter used with the **Apply to New Members** option to allow you to set a specific day of the month on which to advance the begin date for new customers. Valid entries range from 0-28. If the value is 0 or 1, the Bill Begin date will always advance to the beginning of the next month.
  For example, if the **Advance Start Month** as of field is set to 15 and the **Apply to New Members** option is enabled, all new customers joining on August 15 will have their billing Begin Date set to 09/01.
- **Apply to Delinquent Customers** – (Applies to **Cash** basis and **Anniversary** items only.) This option allows for the calculation of a new billing term when payment is posted to an existing billing record after the Bill Begin date. The new term begin date is

determined by the value of the **Advance Start Month** as of field. If the value is 0 or 1, the new term will always advance to the beginning of the next month.

- **Grace Period in Months** – (Applies to **Cash** basis and **Anniversary** items only and displays only when the **Apply to Delinquent Customers** option is enabled.) This option refers to the grace period that is allowed for payment after the Bill Begin date.
  For example, the **Advance Start Month** as of field is set to 15, the **Apply to Delinquent Member** option is enabled, and the **Grace Period in Months** is set to 3. A customer with a Paid Thru date of 12/31/2001 is billed for a renewal term of 01/01/2002 to 12/31/2002. The customer does not pay until 04/15/2002. The payment transaction date of 04/15/2002 exceeds the Bill Begin date of 01/01/02, and it also exceeds the three-month grace period from the Bill Begin date of 01/01/2002. Therefore, a new product term will be calculated by comparing the payment transaction date to the value of the **Advance Start Month** as of field. In this example, the payment transaction date of 15 is equal to the value set in the **Advance Start Month** as of field, and the new term will be calculated as 05/01/2002 to 04/30/2003.

Accounting Method

- **Cash** – Enable this accounting method to set up the billing system to recognize income when payment (cash) is received regardless of when bills or invoices were generated. The cash method is preferred for the Billing module.
- **Accrual** – Enable this accounting method to recognize income by creating open accounts receivable items when bills and invoices are generated.

**Note:** After you change the accounting method, you must restart iMIS Desktop and ensure that your iMIS Administrator stops and restarts all websites that contain your iMIS 15 applications in order to see the changes in the left navigation area.

**Note:** If restarting the websites is problematic, you can wait for the cache to refresh (default is 15 minutes wait time, designated by the refresh cache interval), and then your changes appear.

### Billing Time

The billing time is a method selected to control the start and end time of a customer or product term.

- **Annual** – Fixed annual customer term. All customers have the same billing term. The customer term coincides with the fiscal year (begin in any month). Annual fees are commonly prorated for new customers. Different prorating rules apply depending on when a customer joins. For example, if new customers join in July and you renew annually on the calendar year, you might want to prorate their fees by 50 percent.

  > **Note:** If you select **Annual** as the billing time, you will need to set up the first month of the fixed term or fiscal year on the **Configure accounting options** window (go to **Finance > Options > Configure accounting options**). Enter the calendar month (numeric) that represents either your fixed term or fiscal year in the **First Month of Fiscal Year (Number)** field. The value in the **First month of the fiscal year (number)** field auto-populates the Effective Date. If this field does not have a value greater than zero, then the Effective Date must be manually entered on the **Process billing** window (go to **Home > Membership > Bill membership dues**).

- **Anniversary** – Individual renewal date that fluctuates based on each customer's Join Date. For example, if a customer joins on July 1, his or her term would be from July 1-June 30 of the following year. If you select an anniversary billing time, terms will initially default to a year (or other specified billing interval) from the Join Date, if it exists, or the Effective Date you specified during billing.

### Prorating

Prorating applies only to organizations that bill on an annual or fixed-term basis, as opposed to an anniversary or rotating-term basis.

- **Do Not Prorate** – Enable to specify that fees are the same regardless of when a customer joins the organization.
- **Standard Prorating** – Enable to specify a global setting that prorates all products for the current year (depends on the billing interval). The following example relates to a billing interval of 12. If a customer joins during a term, iMIS reduces the initial fees based on a standard 12-month calculation. For example, if a customer joins in month

7 and the annual fees are $200, the calculated fees would be 6/12 of the total fees, or $100.

- **Special Prorating** – Enable to specify user-defined prorating rules according to the needs of your organization. This rule is a per product setting and must be defined and assigned to individual products. Specify prorating rules on the **Prorating** window (go to **Settings > Billing > Billing products**, and click **Prorate Rules**). See Defining Prorating Rules for detailed information.

  > **Note:** When a former member, who is still marked as active in the system, rejoins your organization, the rejoin is processed as a renewal and prorating does not apply. See Defining Prorating Rules for more detailed information about how prorating is applied to rejoins.

#### Miscellaneous

**Cash Dues Over/Under Payments Create AR** – When you enable this option, overpayments are tracked in the AR/Cash system to allow the credit to appear on the **Credit Invoices** window (go to **Finance > Processes > Month-end procedures**, and click **Credit Invoices**). Underpayments are also tracked in AR by considering the item fully paid and maintaining an outstanding balance. Overpayment or underpayment to AR creates an open credit or debit item for that customer. For example, if the customer paid $150 and had been billed $100, a payment of $150 can be entered but only $100 applied. iMIS would create an open credit of $50 for that customer in AR. A full payment of line items advances the Paid Thru date on those items. Credit (overpayments) and outstanding debit (underpayments) balances are maintained by the AR system. In Billing, the item will be treated as fully paid.

**Auto Apply Dues Payment** – This option is enabled by default. When you disable this option, dues payments are not applied automatically.

#### Balances

**Maintain Prev. Balance** – If this option is enabled, iMIS maintains the previous balances on customers who have made a partial payment or no payment. Previous balances are usually maintained in conjunction with a low Standard Billing Interval. For example, if annual fees were $100 and the customer paid only $80, iMIS would retain a balance of

$20. When the customer is billed next year, iMIS would add the previous balance of $20 to the customer's total balance.

> **Note:** The **Maintain Prev. Balance** option applies only to cash-based dues. For accrual-based fees, previous fee balances can be viewed in the individual's AR window because accrual fees billings create invoice records. The **PREVIOUS_BALANCE** field in the Subscriptions table will not be populated for an accrual fees billing even if the **Maintain Prev. Balance** option has been checked.

> **Note:** The **Maintain Prev. Balance** option must be enabled for a **_CREDIT** (user-defined credit) to display on a Renewal Notice.

> **Note:** This option does not apply to voluntary contributions (VOL).

#### Paid Thru Date Update

The options set in this section set the preference for when the Paid Thru date information is to be updated. The Paid Thru date for the cash accounting method is updated with payment in full.

- **Update Complimentary Items at Payment Time** – Enable to specify that the Paid Thru date for complimentary items (no charge products) be updated at payment time instead of billing time.
- **Paid in Full** – (This option displays when the **Accrual** accounting method is enabled.) Enable to specify that the Paid Thru date be updated when full payment of the associated line item is received.
- **Billing Time** – (This option displays when the **Accrual** accounting method is enabled.) Enable to specify that the Paid Thru date will be updated when the initial accrual fees billing is performed.

#### AR Payment Application

(This option displays when the **Accrual** accounting method is enabled.) Enable to sets the preference for distribution of partial payments across multiple-fee line items on the **Enter and edit cash receipts** window (go to **Finance > Transactions > Enter and edit cash receipts**). This option allows the choice of whether a partial payment will be applied

based on priority established at the product code level or evenly distributed across each fee-based product billed.

- **Priority** – (default) Enable to apply payments to each open line item in payment priority order until all open line items are paid. If no pay **Priority** has been set for the products defined on the **Set up products** window (go to **Finance > Options > Set up tables > Products**), partial payment will be applied to products in alphabetical order.
- **Proportional** – Enable to apply payments across all the open line items in direct proportion to each line's amount.

**Billing Contact**

Enter the iMIS ID for the person who would like to receive an email message each time someone makes a Billing-related purchase. The email messages is similar to the one the Event Contact receives for an Event purchase.

## Defining prorating rules

Prorating means allocating or assigning an amount to an activity or product that is proportional to some base (determined by a formula or procedure). Prorating is only applied to organizations that bill on an annual or fixed-term basis, as opposed to an anniversary or rotating term basis.

> **Note:** The number of months used by the prorate rule for an individual is **Thru Date** to **Join Date**. Prorate only applies if the Join Date is populated before running the billing.

The three options available to define prorating rules include the following:

- **Do Not Prorate** – Same dues regardless of when customer joins.
- **Standard Prorating** – Prorating for the current year (depends on the billing interval). For example, if a customer joins in month 7 and annual dues are $200, the calculated dues would be 6/12 of the total dues, or $100.
- **Special Prorating** – User-defined prorating rules, depending upon the needs of the organization. If the **Special Prorating** option is enabled, proration rules are created on the **Prorating** window. Prorating rules can be used for unique situations that require more than simple monthly prorating within the first year, such as:

- Quarterly or semi-annual prorating
- Second-year prorating (receive x% off of next year's dues)
- Advancing the membership term to the end of the next year
- Multiple prorating rules

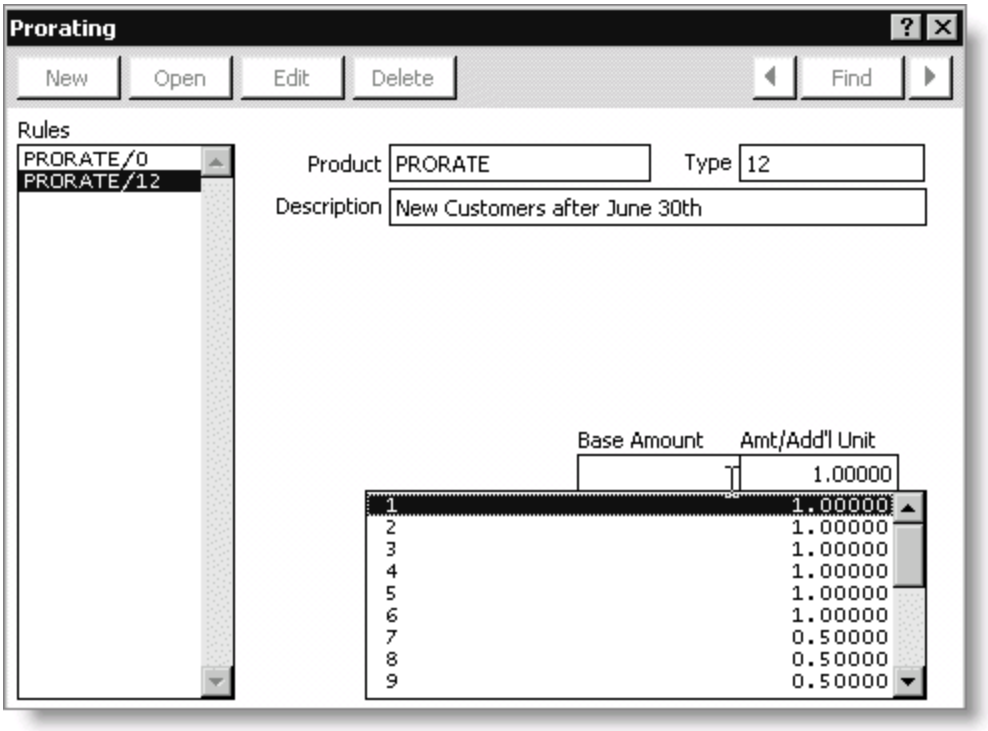
**Tips**

- If a former member rejoins your organization (that is, they already have an existing join date in the system that is earlier than the beginning of the current fixed-term) through the online join page, one of two scenarios can occur:
  - If the contact is an active member, the rejoin is processed as a renewal and prorating does not apply. The contact pays the full membership fee for the fixed-term.
  - If the contact is not an active member, the join date resets to the current system date and prorating is applied. If your organization needs to maintain a record of the original join date, you can create a user-defined field where a staff members can enter the date before processing the rejoin.

### Working in the Prorating window

In the Advanced Accounting Console, go to **Settings > Billing > Billing products**. Click **Prorate Rules**.

Click to view image



**Rules**
List of defined prorating rules.

**Product**
This field is automatically populated with PRORATE. You can edit this value.

**Type**
Indicates the number of months in the billing period. This number must agree with either the **Product Renewal Months**, on the **Billing products** window (**Settings > Billing > Billing products**) or the **Standard Billing Interval** on the **Configure billing options** window (**Settings > Billing > Configure billing options**).

**Description**
Specifies a detailed description of the prorating rule.

**Prorating Table Entries**
The entries in the prorating table specify the amount that a customer is charged. For example, if month 1 represents an on time payment, for which a customer is charged a full fee (100%), the **Amt/Add'l Unit** field will hold a "1". There must be one table entry for each month in the renewal cycle as defined in the **Type** field.

### Base Amount
Specifies refinements (if any) to the prorating rule. The following codes can be entered in this field:

- **F** (Future Credit) - Postpones the prorating discount to the second billing year.
- **B** (Bump Date) - Advances the end of the billing term to the end of the next term. The amount charged depends on the multiplier entered in the **Amt/Add'll Unit** field.

### Amt/Add'l Unit
Indicates the percentage of the full price to charge customers.

---

### Using future credit and bump date prorating
In addition to changing the price a customer is charged in monthly increments, special prorating rules also offer Future Credit and Bump Date prorating.

**Future credit**
Future credit prorating applies any time-based discounts to next year's dues and charges full credit for this year's dues. For example, an organization may charge full annual dues

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no matter when in the year a customer joins, but give a time-based discount for new members joining after the sixth membership month.

**Bump date**

Bump date prorating charges a fee no matter when in the membership year a customer joins, but after a named cutoff point, advances the renewed through date to the end of the next billing term.

**Future credit and bump date examples**

| Base | Amt/Add'l Unit | Effect |
|---|---|---|
| | 1.0 | The customer is charged the full annual rate. |
| | 0.5 | The customer is charged 50% of the annual rate. |
| F | 0.5 | The customer is charged the full annual rate but will receive a 50% discount on next year's rate. |
| B | 1 | The customer is charged the full annual rate, but the renewed through date will be set to the end of next year's term, not this year's term. |
| B | 1.5 | The customer is charged 1.5 times the annual rate and the |

| | | |
|---|---|---|
| | | renewed through date will be set to the end of next year's term, not this year's term. |

> **Note:** If you bill once per year, but want to decrease the amount charged a new customer on a quarterly basis, define a 12-month prorating rule and then use identical line entries for each month in a quarter. For example, the line entries for months 1, 2, and 3 would be identical.

Defining special prorating

1. From **Settings**, select **Billing > Configure billing options** to open the **Configure billing options** window.
2. Click **Edit**.
3. Select the **Annual** option under **Billing Time**.
4. Select the **Special Prorating** option under **Prorating**.
5. Click **Save**.
6. Select **Settings > Billing > Billing products**.
7. Click **Prorate Rules** to open the **Prorating** window.
8. Click **New**.
9. (optional) In the **Product** field, rename the rule.
10. In the **Type** field, enter the number of months in the billing period.
11. In the **Description** field, enter a description of the prorating rule.
12. (optional) Enter the **Base Amount** to reflect second-year prorating or an extension of the term to the next year or fixed term.
13. Enter a multiplier in the **Amt/Add'l Unit** field. For example, 50 percent should be entered as .50.

    > **Note:** The number of lines in the table must equal the number of months specified by the rule type.

14. Click **Save**.

Defining future credit prorate pricing

The following example shows a normal prorating setup in which the reduction in the rate is postponed until the second term. If a customer joins during months 4-6, the customer will be billed the full amount the first year and 75% the second year.

1. From **Settings**, select **Billing > Billing products** to open the **Billing products** window.
2. Click **Prorate Rules** to open the **Prorating** window.
3. Click **New**.
4. In the **Type** field, enter 12 as the number of months in the billing period.
5. In the **Description** field, enter **New Customers** as the description.
6. Enter a multiplier of 1.0 for months 1-3 in the **Amt/Add'l Unit** field.
7. Enter **F** in the **Base Amount** field and a multiplier of .75 for months 4-6 in the **Amt/Add'l Unit** field.
8. Enter **F** in the **Base Amount** field and a multiplier of .50 for months 7-9 in the **Amt/Add'l Unit** field.
9. Enter **F** in the **Base Amount** field and a multiplier of .25 in **the Amt/Add'l Unit** field for months 10-12.
10. Click **Save**.

Advancing the billing term with Bump Date prorating

In the following example, no prorating occurs until month 7 when a new customer is charged half of the rate. Customers joining in months 11 or 12 pay the full amount and will receive services for a longer term (13- and 14-months respectively).

1. From **Settings**, select **Billing > Billing products** to open the **Billing products** window.
2. Click **Prorate Rules**. The **Prorating** window opens.
3. Click **New**.
4. In the **Type** field, enter **12** as the number of months in the billing period.
5. In the **Description** field, enter **New Customers after June 30th** as the description.
6. Enter a multiplier of **1.0** for months 1-6 in the **Amt/Add'l Unit** field.
7. Enter a multiplier of **0.5** for months 7-10 in the **Amt/Add'l Unit** field.
8. Enter **B** in the **Base Amount** field and a multiplier of **1.0** in the **Amt/Add'l Unit** field for months 11-12.
9. Click **Save**.

## Recurring donations

**AutoPay** provides the ability for organizations to use a tokenization engine to process credit card and bank account information for recurring payments while maintaining PCI compliance.

AutoPay provides organizations the ability to support automatic renewal of membership fees and recurring donations. AutoPay uses a tokenization engine to process credit card and bank account information for recurring payments while maintaining PCI compliance.

> **Note:** In order to use AutoPay for recurring payments, you must have a license key. Contact ASI for more information.

AutoPay is available in the **Join Now** and **Give Now** pages of your website. Using Staff site settings, you can set your website to invite the member and donor to opt in or out of automated renewals, or even have the option switched on for all new members and donations.

Members can opt in when they join or when they renew. Members who have opted in to Automatic membership renewals still have the option to pay by alternate means of payment when renewing or opt out altogether.

When making a donation online, donors are invited to make Recurring donations with monthly, quarterly or annual payments. Staff users can cancel payments at the donor's request.

> **Note:** AutoPay is available only for billing items set up with an **accrual** accounting method.

The following are required in order to use AutoPay:

- An AutoPay license key. Contact ASI for more information.
- A tokenization engine (iMIS-hosted or self-hosted)
- **Payflow Pro** payment gateway account

Some key features and benefits of AutoPay include:

- Offering members and donors the choice of easy, automated payments.
- Maximizing member and donor retention with automated renewals and recurring donations.
- Enabling staff to discontinue automatic payments for members or donors at any time.
- Using settings in the Staff site to set automatic payment options in the join or renewal process as off, opt-in, opt-out, always on or required.
- Using settings in the Staff site to set recurring donation options in the online Give Now pages as either off, opt-in, opt-out or always on.
- Differentiating between automatic and non-automatic renewals so your members are billed accurately.
- Staff manually adding members to the automatic membership renewal program.
- Staff previewing membership fees and donations to be collected, and submit for collection.
- Securely storing credit card details in a PCI-compliant manner.

### Recurring donations

When enabled, AutoPay empowers your members to create a recurring donation that can be automatically deducted from their payment methods at an interval they select: monthly, quarterly, or annually.

> **Note:** AutoPay is optimized for use with the **Give Now** page. The option to create a recurring donation will not be available for donations added to the cart.

Setting up recurring donations

An iMIS-hosted tokenization engine supports the **Payflow Pro** payment gateway for credit card transactions.

To use AutoPay, you must initially configure the Staff site for recurring donations.

> **Note:** In order to use AutoPay you must have a license key. Contact ASI for more information.

Why doesn't **Automatic Payments** display on my **Commerce** menu when my site is licensed and configured for AutoPay?

If your site is licensed for AutoPay and you have followed the configuration steps outlined in this article, you might need to republish the Staff site's sitemap to get the **Automatic Payments** navigation item to display on the **Commerce** menu:

1. In the Staff site, go to **RiSE > Site Builder > Manage Sitemaps**.
2. Select the **Staff** site from the drop-down list of sites in the left pane.
3. Click **Publish**.
   The Automatic Payments navigation item (and sub-navigation items) should display on your **Commerce** menu.

Configure recurring donations

1. In the Staff site, go to **Settings > Commerce > General**.
2. Enter the **AutoPay service address**. This is the address to the tokenization engine. You must have access to a tokenization engine in order to perform recurring transactions. Enter the AutoPay service address in the following format:
   `https://localhost/DataVault0`

   Where *localhost* is the name of a server and *DataVault0* is the web site alias.

   > **Note:** Contact ASI Hosting for more information about the iMIS-hosted tokenization engine.

3. Select the **Recurring donations** option:

- **(None)** – No option selected.
- **Allow users to enable** – Users can enable recurring payments. By default a donation is a one-time transaction, but the donor can change this to a recurring transaction.
- **Disabled** – Recurring payments are not allowed. Donors can only make one-time donations.
- **Enabled by default** – Recurring payments are enabled by default. By default a donation is a recurring transaction, but the donor can change this to a one-time donation.

4. **Save** these settings.
5. Go to **Settings > Commerce > Automatic payment gateways**.
6. Select the desired gateway from the **Gateway type** drop-down.

7. Enter the required information and click **Save**.

- **Payflow Pro**
- **Organization name** – Your iMIS organization name. This is populated with information from your database.
- **Default for payment type** – Select the default payment type for this gateway:
- **(None)**
- **Credit Cards**
- **Gateway name** – The selected gateway.
- **Vendor** – The Payflow Pro user name.
- **Partner** – The Payflow Pro partner name that was obtained when you created your account.
- **Host URL Address** – The Payflow Pro host address.
- **User** – The Payflow Pro user name.
- **Password** - The password you were provided during the sign-up process.
  For more information, go to https://www.paypal.com/us/webapps/mpp/payflow-payment-gateway.

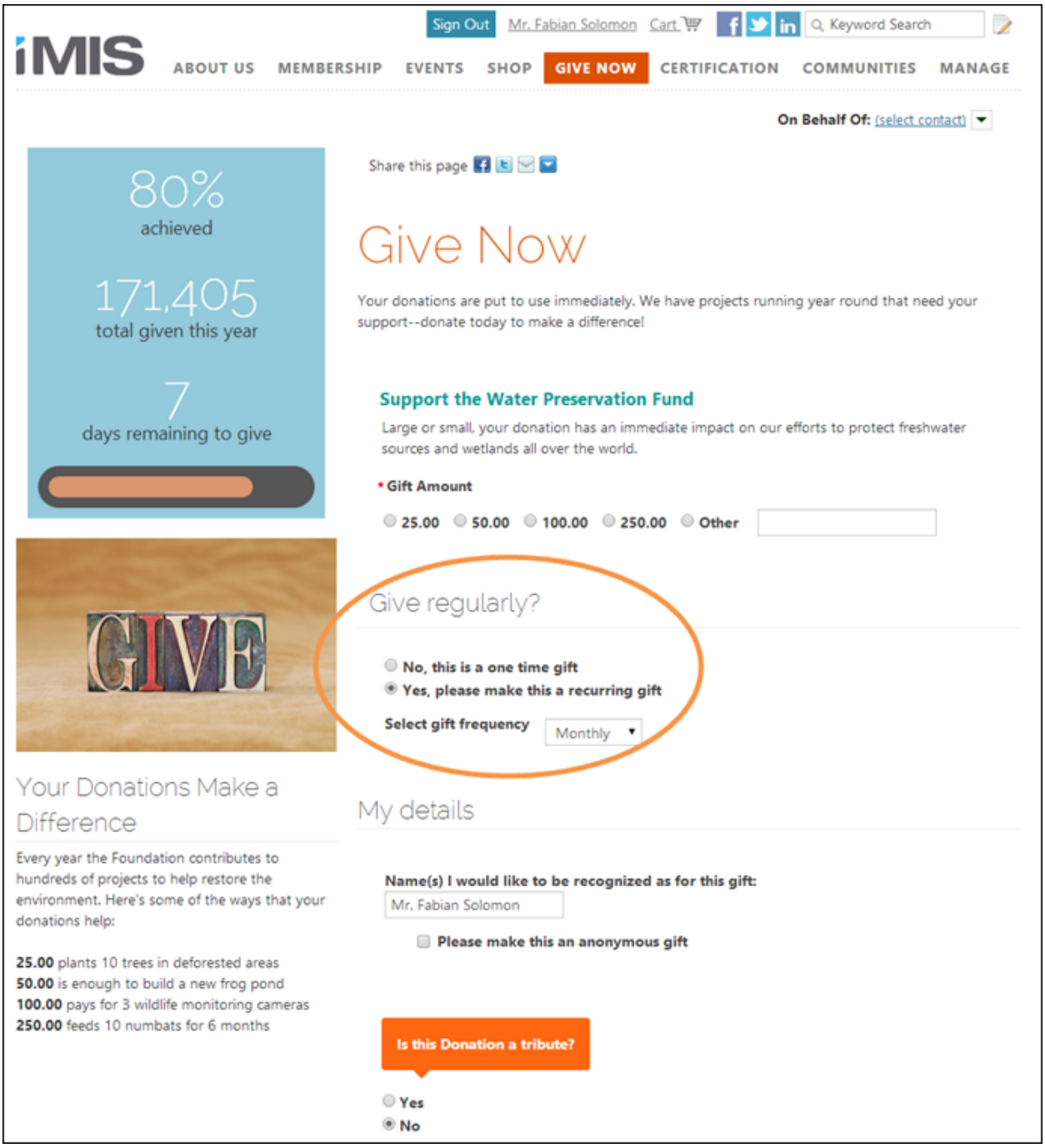
> **Note:** For AutoPay to work, you must add a gateway that is supported in the tokenization engine.

Creating a recurring donation page

When a donor wants to make an easy, one-click donation, the donor can use the **Give Now** page. **Recurring Donations** takes **Give Now** one step further and allows your donors to elect to automatically continue giving monthly, quarterly, or annually.

Donors can enroll in recurring donations when they donate. The **Give Now** page, when configured with **AutoPay**, allows your donors to select the frequency of their recurring donation.

Click to view image




Before your organization can accept recurring donations, you must configure your donor site.

In the Staff site, go to **RiSE > Page builder > Manage content**, and do one of the following:

- Make a copy of the Member site **Give Now** content record. Future updates to iMIS can overwrite this content record. Having a copy will allow you to keep and maintain this content record. See Copying or moving content records to another content folder for more information.
- Alternatively, you can edit an existing donation content record to contain the following content items and configurations:

> **Note:** This list of content items are required to use the Recurring Donations feature. You can have as many content items on your content record as you would like.

- **Donation Creator** (Offering)
- Check the **Display the distribution description** checkbox.
- Select the **Process donation immediately** radio button.
- Choose the **Select a distribution** radio button and select a fund from the drop-down.

> **Note:** Any information entered in the fund description section will be displayed.

- Enter a **Commit sequence** of **2**.

> **Note:** The lowest **Commit sequence** number will be processed first.

- (optional) Add an **Item added message**.
- Connect your **Donation Creator** and **Recurring Donation Creator** content items. Connections enable content items to interact with one another, significantly reducing the need for additional maintenance for site administrators. The Donation Creator content item needs to know if the donation will be repeating (determined by the Recurring Donation Creator) in order to provide an option for giving frequency.

1. Click **Connect** on the Recurring Donation Creator. A **Connect** window is displayed.
2. Click **Create a new connection**.
3. Select the Donation Creator in the **Object Consumer** drop-down.
4. Click **Connect**.
5. Click the red **X** to close the **Connect** window.

- **Recurring Donation Creator** (Offering)

- Enter a **Commit sequence** of **3**.
- 
> **Note:** This **Commit sequence** value must be less than the commit sequence of Payment Creator and the Submit Order Button Link.

- Add radio option text:
- **'No' radio option text** – No, this is a one time gift.
- **'Yes' radio option text** – Yes, please make this a recurring gift.
- Add **Gift frequency text**.
- **Contact Account Creator** (Contact)
- Select **Hide for authenticated users**.
- Enter a **Commit sequence** of **1**.
- **Payment Creator** (Commerce)
- Select **Donation** from the **Purpose** drop-down.
- Enter a **Commit sequence** of **5**.

> **Note:** The payment methods available to your donors are determined by your settings. See Creating and editing payment methods for more information.

- Connect your **Donation Creator** and **Payment Creator** content items.

1. Click **Connect** on the Payment Creator. A **Connect** window is displayed.
2. Click **Create a new connection**.
3. Select the Donation Creator in the **Object Consumer** drop-down.
4. Click **Connect**.
5. Click the red **X** to close the **Connect** window.

- **Submit Order Button Link** (Commerce)
- Select **the Prompt unauthenticated users to sign in** checkbox.
- Click **select** to select a URL or content record to redirect users to in the **URL for order confirmation** field.

> **Note:** The default content points to your pre-built donation thank you page. You can select any content record in the Document Browser.

- Select **Donation** from the **Purpose** drop-down.

- Enter a **Commit sequence** of **6**.

Processing recurring donations

Once a recurring donation content record has been added to one of your public-facing sites, you are able to call up the batch payments and invoices for those members who have chosen to set up repeating payments. The following steps will walk you through the process of creating a batch, reviewing batches, and processing invoices.

> **Note:** In order to use recurring donations you must have a license key. Contact ASI for more information.

Generate invoices for recurring donations

1. In the Staff site, go to **Fundraising > Recurring donations > Process payments**.
2. On the **Generate invoices** tab, enter a **Run Date** to create a recurring donation pledge batch. The run date is used to gather all of the invoices due up to and including the date on which you want to process your open pledge invoices.

> **Note:** Any payment requests sent to the tokenization engine will be processed immediately. The tokenization engine does not check due dates. This action is performed when you provide a date for **Due for collection on or before** during invoice batch submission. Do not submit any invoices that are not yet due for payment.

3. Click **Run**. A **Recurring Donation Pledge Batch** is created.
4. Post the batch:

a. In the Advanced Accounting Console, go to **Finance > Processes > Manage batches**.
b. Select your desired batch and click **Post Selected**.

Process recurring donation invoices

1. In the Staff site, go to **Fundraising > Recurring donations > Process payments**.
2. On the **Submit payments** tab, enter a **Due for collection on or before** date for all invoices due for collection. The due date refers to all unprocessed invoices due for renewal leading up to the due date you select.
3. Click **Find**. A list of all of the invoices matching your criteria will appear as a batch.
4. Click **Submit invoices for payment**. You will receive a notice that the batch has been submitted.

Update iMIS to incorporate payments that have been processed

1. In the Staff site, go to **Fundraising > Recurring donations > Process payments**.
2. On the **Retrieve processed payments** tab, review the detailed list of invoices.
3. Click **Retrieve processed payments**. You will see the results of your batch processing.

> **Note:** This will refresh the payment status of the submitted payments, and write the submitted payments back to iMIS.

4. The values in the **Result** column are marked **Completed** when payments are successful.

Review submitted renewal payments

1. In the Staff site, go to **Fundraising > Recurring donations > Review payment history**.
2. Search for completed automatic renewal payments using your desired parameters.
3. Review records for invoice number and other payment details.

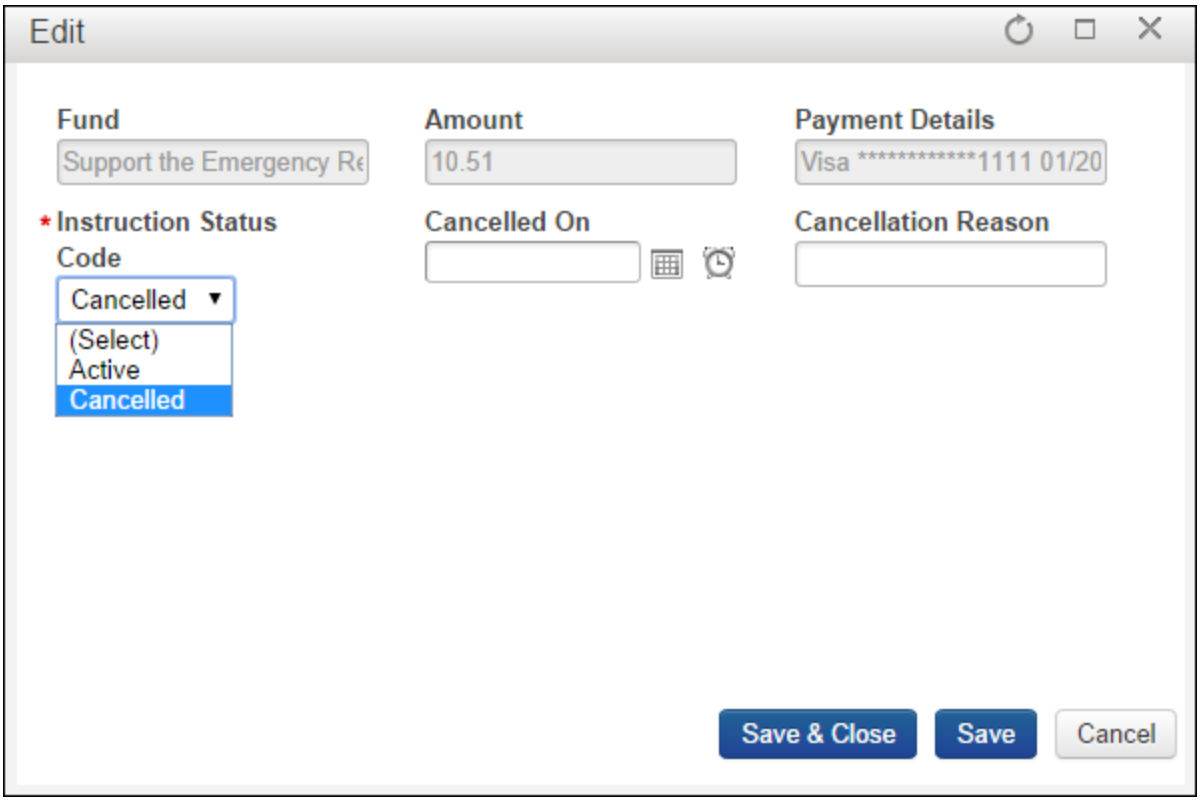
Modifying an existing recurring donation

Staff users can edit the automatic payment instructions for recurring donations. Staff users can cancel currently active recurring donations.

To cancel an automatic payment, do the following:

1. Go to **Commerce > Automatic payments > Payment instructions**.
2. Search for a recurring donation. You can search by **First name**, **Last name**, iMIS **ID**, or **Type**. You can also click **Find** to see all automatic payment instructions.
3. Click the name on the recurring donation you want to edit.
4. Click **edit**.

Click to view image




5. You can change the **Instruction Status Code**:
   - **(Select)**
   - **Active** – Activate a previously cancelled automatic payment.
   - **Cancelled** – Cancel an automatic payment.
6. Enter the date you cancelled the recurring donation, as well as a reason for the cancellation.
7. Click **Save & Close**.

## Adding the communication content record to a sitemap

To make your email communications easy to access right from your staff site, create a Navigation item for each communication query and content item you have created. This will provide a convenient way for your staff to access the list of contacts to email. This step is not required to use the communication creator tool, but is recommended for ease of use.

**Note:** Sitemaps for Core Sites and Quick Start Sites are protected for use by the iMIS system and are subject to being overwritten during upgrade. However, you

can add new navigation items to any of these sites and they will be preserved during an upgrade.

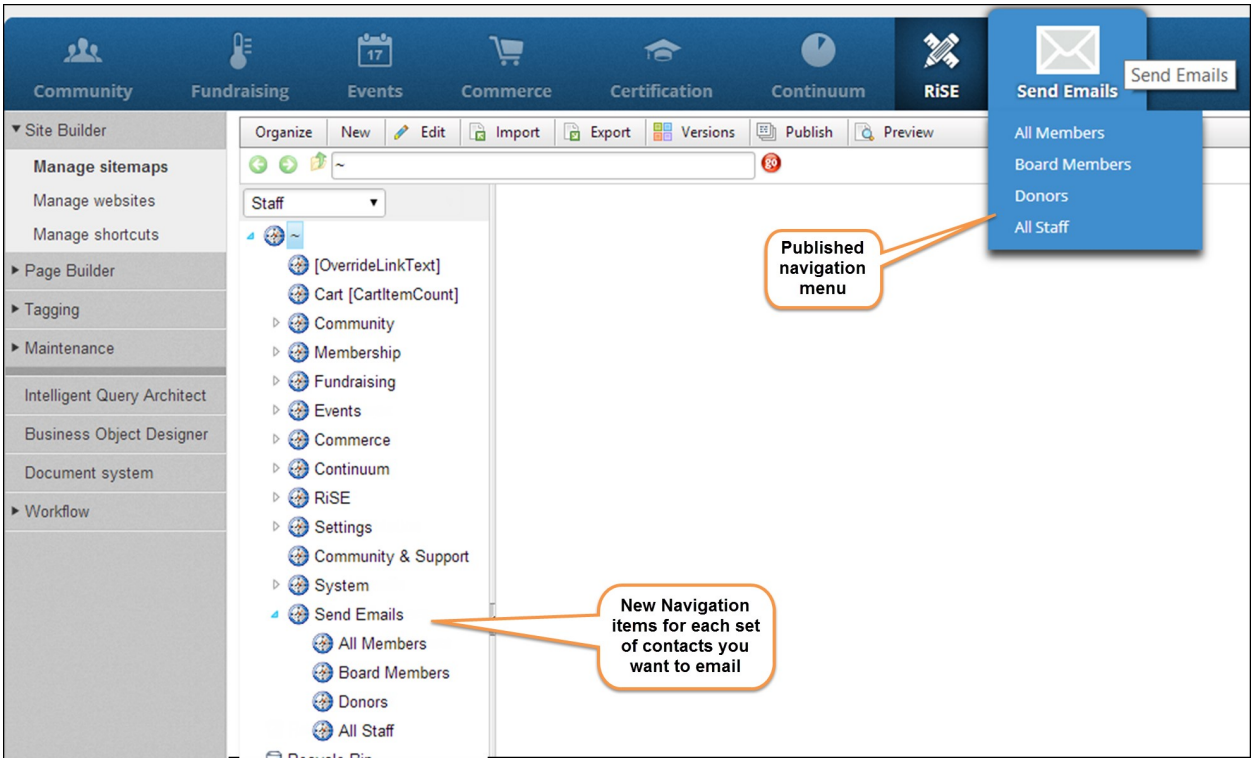
1. In the Staff site, go to **RiSE > Site Builder > Manage sitemaps**.
2. Select the Staff website from the dropdown.
3. Select **New > Website Navigation Item**.
4. Enter the navigation name and sitemap parameters.

a. **Navigation Link Text** - The text that will display across the navigation bar
b. **Navigation Folder Name** - The folder the will hold all of the associated content items
c. **Content or URL to Link to** - Choose the content you would like to have this navigation item point to.

**Note:** This should be the content containing the communication query you created in step 2.

5. **Save and publish** the new navigation item.

Click to view image



### Adding the communication content record to a sitemap

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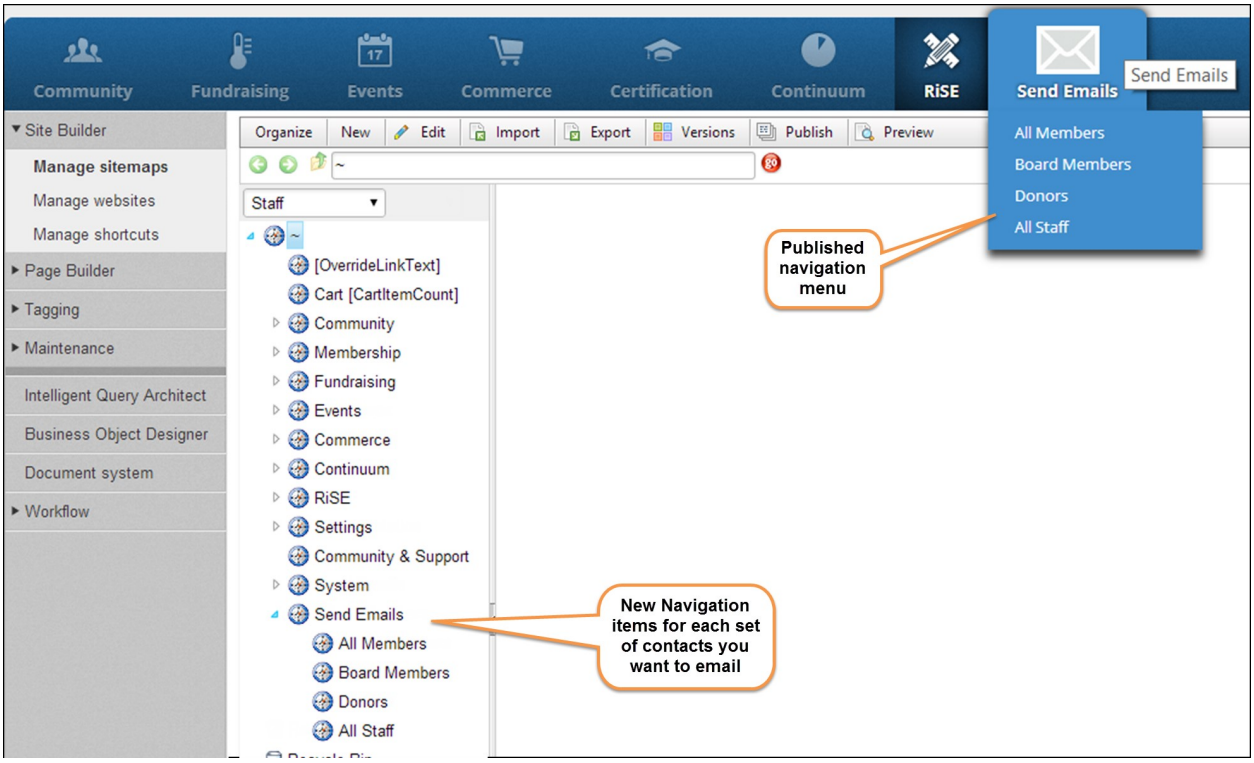
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> **Note:** This should be the content containing the communication query you created in step 2.

5. **Save and publish** the new navigation item.

Click to view image




## Adding the communication query to a content record

After you have created your list of contacts to email, you need to add them to a content record. To do this you will need to add the Query Menu content item to a content record and display that content record on a content page or sitemap. You could configure multiple content items with a single query each, or your content record could also contain multiple queries for different email communications.

1. In the Staff site, go to **RiSE > Page Builder > Manage content**.
2. Select the folder where you want the content record to be stored.

> **Note:** Save your content record to a Shared Content folder to ensure that it is protected during iMIS upgrades. Any changes to sample content items run the risk of being overwritten by the system.

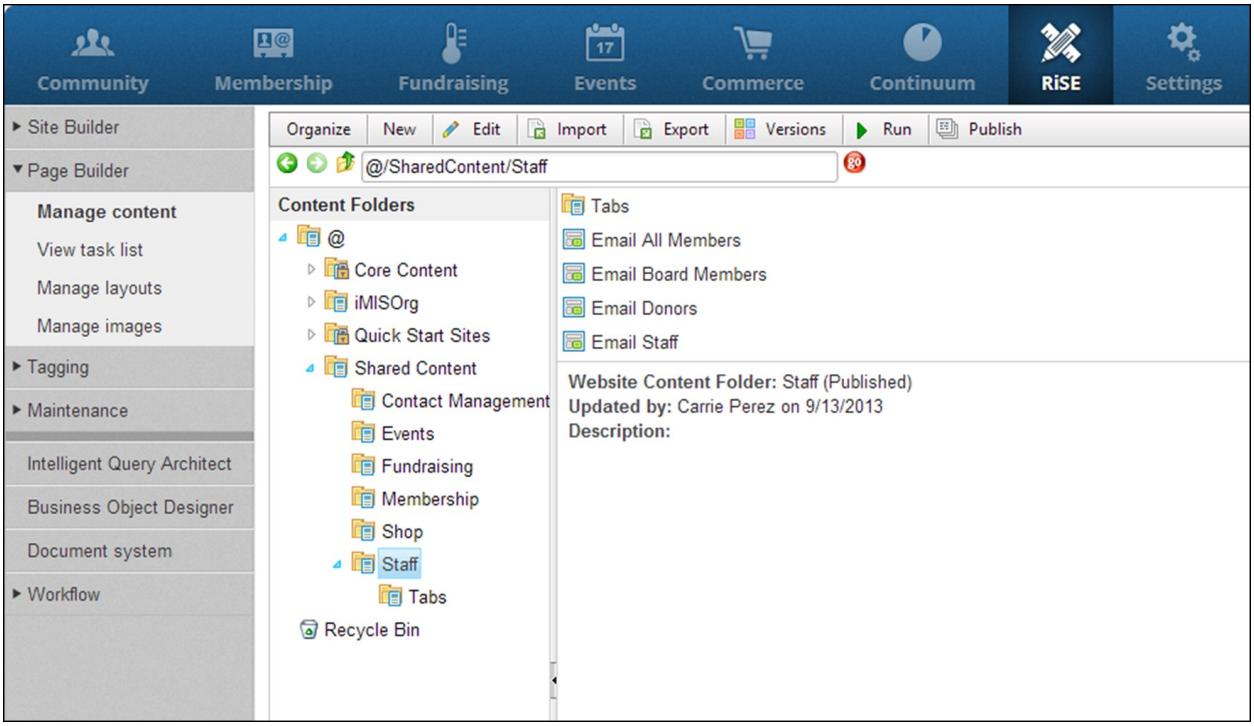
3. Select **New > Website Content**.
4. Enter the content name and select the layout.
5. Select **Add content**.

6. From the **Utility** folder, select **Query Menu**.
7. Configure the **Query Menu** content item.

a. (**Required**) Select the **Enable email merge from query results**.
This option activates and displays the **Email** button below the query results in the content record and merges the email contact list from the query results.

b. Select the communication contacts query you want to use as the source query.
c. Click **OK**.

8. **Save and publish** the content record.
Click to view image




## Configuring and sending email

In order to use the communication suite, a system administrator can create and use communication templates in the Document System or set up content that contains information about the groups of users they would like to send emails to.

To create a communication, you can:

- Create a new or access a saved email template from **Community > Communication template management**
or

- Add a new content record with communication query to your website. Follow these steps:

1. Create a list of contacts to email
2. Add a communication query to a content record
3. Add a communication content record to a navigation item
4. Create an email

### Creating a list of contacts to email

To email a list of contacts, you will need to create a query that groups a set of contacts together. This list of contacts will become the recipients of your email and will provide the database property fields that can be used in the email communication.

> **Note:** An example query is available at **$/Communications/DefaultSystem/Queries/Party/Default**. It's easiest to open up that sample and choose to Save As. You can then edit your copied query and its display settings to meet your needs.

> **Note:** Set up a separate communication query for each unique grouping of contacts you want to send an email to.

1. In the Staff site, go to **Community > Manage communication templates**.
2. Define a new query. See Intelligent Query Architect for more information on creating queries.

a. Select **New > Query** and enter a name for the query.
b. Select **Advanced mode**.
c. Select source business objects. Be sure to select a source that contains the **Contact Key** (**Party ID**) property.

> **Note:** You can go to **RiSE > Business Object Designer** to determine whether the sources contain the needed property.

d. (**Filters** tab) Add property filters if you want to narrow the query list.

> **Note:** If you add a filter with a required prompt, you will not be able to deselect recipients from the list before sending an email.

e. (**Display** tab) Select the columns you want to display.

- (Required) You must select one of the following properties as a column or use one of these terms as a column alias: **ContactId**, **Contact Id**, **CustomerId**, **Customer Id**, **iMISId**, **iMIS Id**, **PartyId**, **Party Id**, **StudentId**, **Student Id**, or **Id**.
- By default when an email is sent from a list, the parameter {**#party.Email**} is included in the **To** field so the email is sent to the entire list.

> **Note:** If you do not want the required column or alias to display in the Query Menu content item on your website, use **code_** to preface the alias (e.g., **code_PartyId** or **code_iMIS Id**).

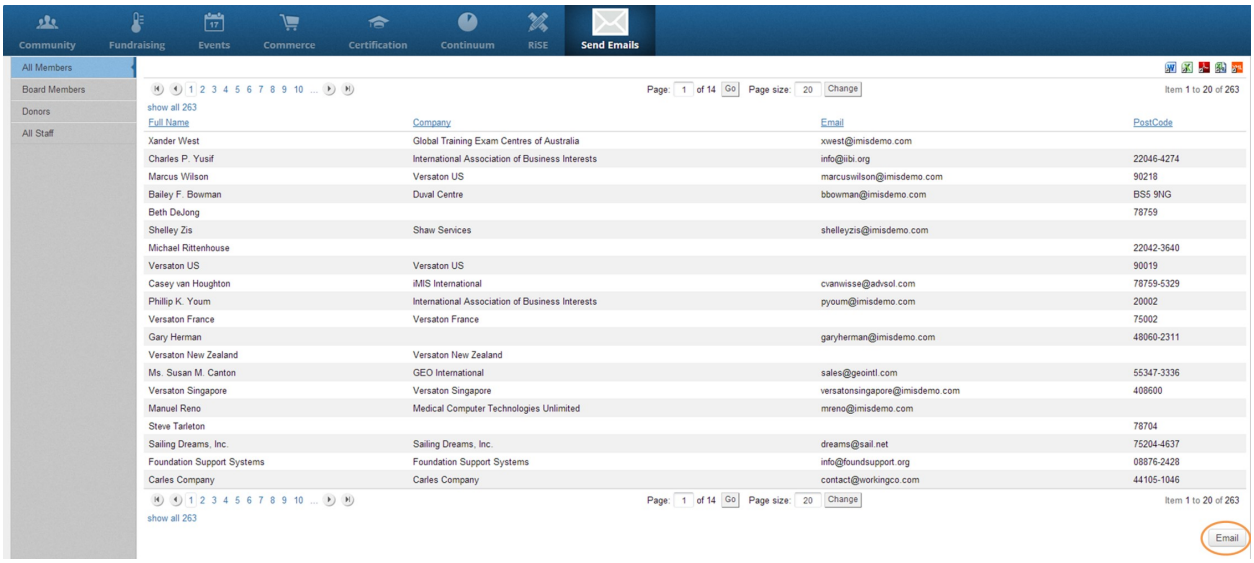
> **Note:** Limit your display columns to show only vital information

3. **Run** the query to review the results. The results of the query determine the list of recipients to include in your email communication.
4. **Save** the query.
5. Select the folder where you want the query to be stored. To keep your email recipient queries organized, it is recommended that you use the **Queries** folder at **$/Common/Communications**.

### Creating an email

1. Navigate to the **Send Emails** content you've set up and select a group.
2. At the bottom of your contact list, click the **Email** button to create, save, or load an email.

Click to view image




3. **Compose** or **Open** a saved Communication.

- Click **Open** to select a saved communication from the document browser.
- **Save As** to save an email for future or repeated use.

> **Note:** All information in your email is included in the saved drafts including the recipient list, attachments, and message content.

> **Note:** Make sure to label your communications carefully. Saved email drafts include all information from the saved communication, including the contact list query. It is recommended to use a naming convention to identify your query in any saved email drafts. For example enter "All Members Thank You Communication" instead of "Thank you communication" to avoid any confusion about the content of the draft.

- **Add Attachment** to include an attachment to your email.

> **Note:** You can add PDF or RDL attachments to your email communications. The Communication Creator does not currently support other file types.

- **Choose Recipients** to change the query used to select email recipients. The query must have a column that identifies the contact's ID.

> **Note:** If the query contains filters with required prompts, you cannot deselect recipients from the list.

- **Cc** to send a copy of the email to specified email addresses.
- **Bcc** to send a blind copy of the email to specified email addresses. **To** and **Cc** recipients cannot see **Bcc** email addresses in the received email message.

> **Note: Cc** and **Bcc** recipients will receive one copy of every message per recipient if the email is being sent to every recipient in a query.

- (Optional) Click **Additional Data Sources** to associate additional data sources with the email template. Fields from the data sources can be inserted in the email message. The **party** data source, which provides basic information about email recipients, is a default data source.
  Click for details

a. Click **Add data source**.

i. Select a query.

ii. If needed, change the **Alias** for the data source.

> **Note:** The **Alias** is how you refer to the data source when creating the email communication. Fields from the data source will be prefixed by the **Alias** in the **Insert field** drop-down. The default **Alias** is the query name.

iii. Click **OK**.

iv. To edit a saved data source, click its edit icon and make the necessary changes.
If a filter in the additional data source matches a display column in the recipient query, the property is used to link the two queries. For example, if the data source uses **ContactKey** as a filter and the recipient query uses **ContactKey** as a display column, their information can be linked. The **Prompt** for the filter in the data source should be set to **Required**.
When the additional data source does not use filters or uses non-matching filters, only the fields retrieved in the first line of the query results can be inserted in the email template. These data sources are useful when you want to insert standalone information, such as

the name of a program administrator, that is not related to the recipient list in the email message.

b. Click **Return to Compose**.

- Select an option from the **Insert field** drop-down to customize emails for each individual in your communication query contact list. Available fields include columns from the recipient query and added data sources and also commonly used contact properties.
  Click for details
  - **{#party.FirstName}** - Use this parameter to address all recipients by their first name
  - **{#party.Email}** - Use this parameter in the **To** field to send the communication to all contacts in your query

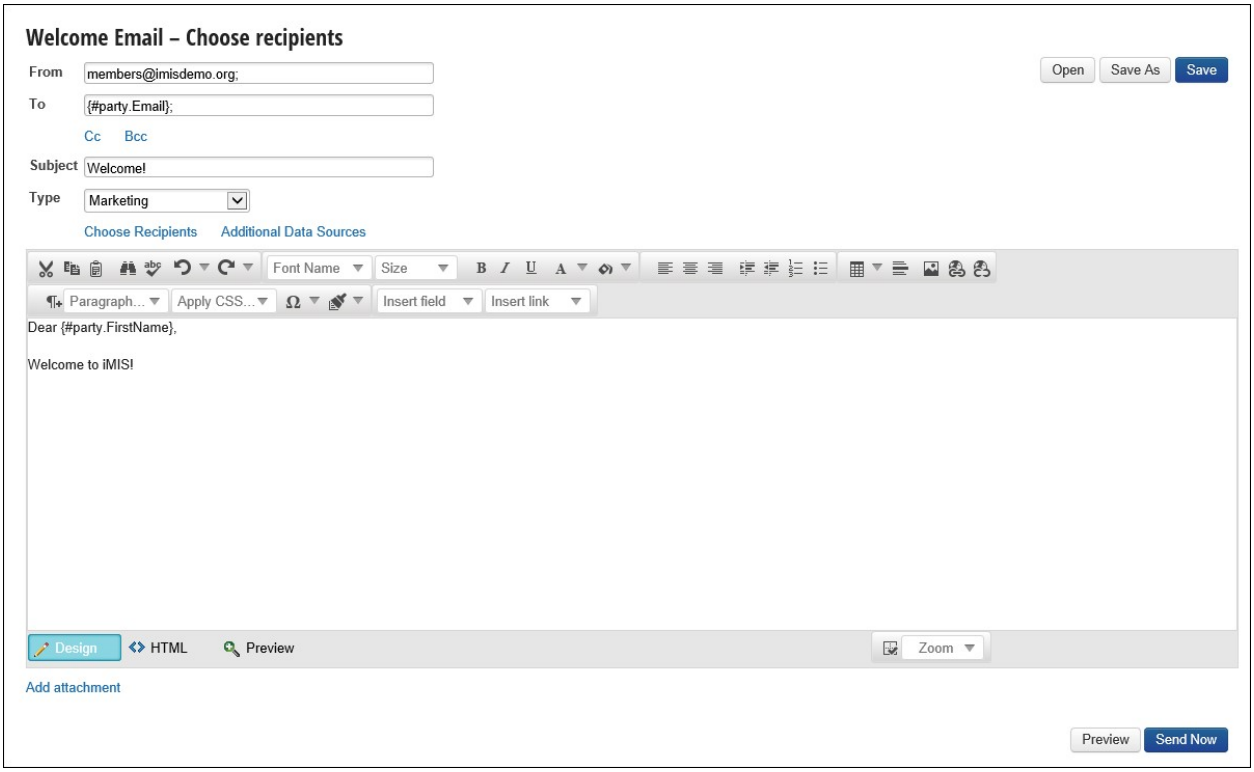
    > **Note:** You can reformat these fields with a formatting string. To specify a format, add format="FORMAT_HERE" inside the brackets, with FORMAT_HERE specified by .NET Framework Standard Format Strings. For example: {**#iqa.DataAdded format="d"**}.

    There are both Date/Time and Number formats available:

  - **format="C"** - Currency: Convert 123.456 to $123.46 ("C", en-US)
  - **format="d"** - Short date: Convert 6/15/2009 1:45:30 PM to 6/15/2009 (en-US)
  - **format="D"** - Long date: Convert 6/15/2009 1:45:30 PM to Monday, June 15, 2009 (en-US)

    > **Note:** For more information on formatting types, please reference the .NET framework.

Click to view image




- (Optional) To include repeating data in the email from an associated data source, use the {foreach} placeholder. Follow the format below:
  Click for details
  - The opening {foreach} placeholder must have a closing {/foreach} placeholder.
  - The opening placeholder should conform to the following syntax: {foreach alias in source [orderby [property,...]]}. This syntax consists of the following components:
    - **alias** - A name for a record in the data source that contains the repeating data.
    - **source** - A data source associated with the email that contains the repeating data. Within the {foreach} placeholder, the source is referred to by the alias for the additional data source.
    - **orderby** -(optional) To sort the data, use the orderby keyword followed by a comma-delimited list of properties to sort the data by.
  - A maximum of 5 sorting properties may be specified.
  - Property names must refer to properties in the data source.
  - Do not specify a data source in the property names.

- You can use HTML tags within the placeholders to format the repeating data. Add the HTML tags in the HTML view. For example, you can use the <ul> tag to create a bulleted list.
- In the following example, merge fields from an associated data source (aliased as **lines**) that retrieves product order information would repeat in the email. The **l** is the alias within the {foreach} placeholder for a record in the data source. The descriptions, quantity ordered, unit price, and extended amount properties are repeated for each record in the query results. The quantity ordered property is formatted to use 0 decimal places.
  {foreach l in lines}
  {#l.Description} {#l.QuantityOrdered format="0"} @ ${#l.UnitPrice} = ${#l.Ex-tendedAmount}
  {/foreach}

  Several lines in the email sent to a contact might look like the following:
  Certification Practice Exam 1 @ $39.99 = $39.99
  Conference Proceedings 1 @ $120.00 = $120.00
  Software Basics: New Hybrid Edition 1 @ $19.99 = $19.99

  In this scenario, the email uses a recipient query with a filter that matches a display column in the additional data source. This links the recipient query and the data source, so only product information for the contact receiving the email displays. If the data source with the repeating data is not linked to the recipient query, all of the records in the data source will be listed in the email.

- (Optional) Select the **Communication Preferences Link** from the **Insert Link** drop-down to include a subscription preferences hyperlink in your email. This link will enable users to manage their email subscriptions directly, without logging in to your site. Note: Your query must include contacts in order for the subscription preferences link to work.
  Click for details
- Provide the hyperlink text to appear in the email.
- Select a website from the drop-down. This is the website where users will manage their communication preferences.

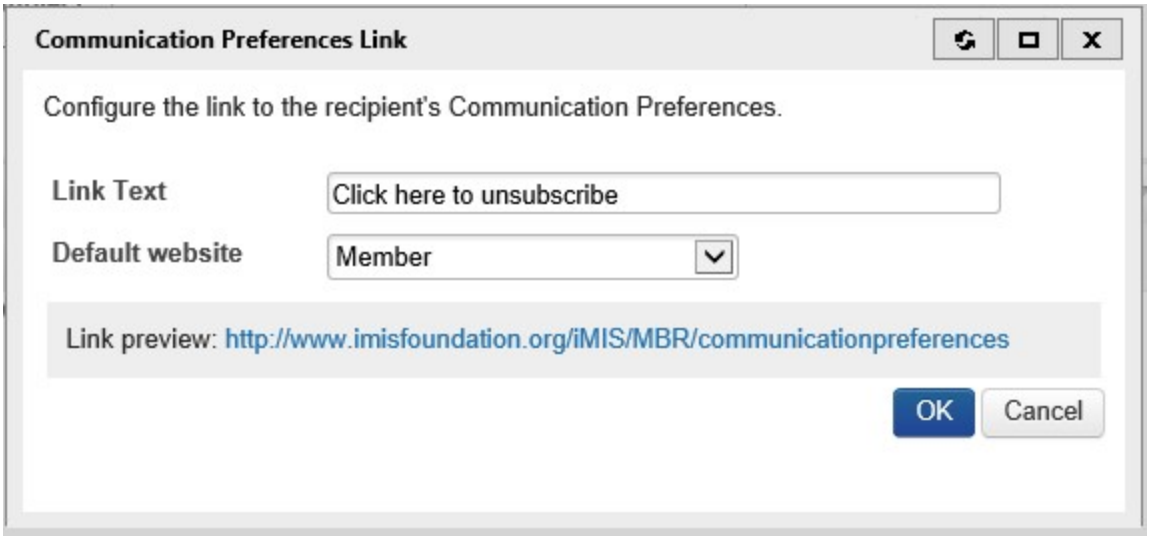
- The link preview displays the URL of the hyperlink that will be inserted into the email. Once the link has been inserted into the email body you can adjust it through the hyperlink designer or directly in HTML mode. Do not adjust any of the query parameters and always test any changes to the URL.

> **Note:** Ensure that the URL is accessible outside of your corporate network. If the hostname portion of the URL is localhost, an internal server name, or IP address, then the link will not work when your recipients try to click it. We recommend that you click the link to verify that you are taken to the correct page.
> The hostname for your website is determined by a setting in RiSE. To set the hostname, go to **RiSE > Site Builder > Manage websites** in the Staff site. Select the website. On the **Properties** tab, the **URL(s) pointing to the IIS website root** setting determines the hostname.

**Warning!**

Testing the link inside your corporate network does not confirm it will work when accessed over the internet. Be sure to test the link from a device not connected to the network.

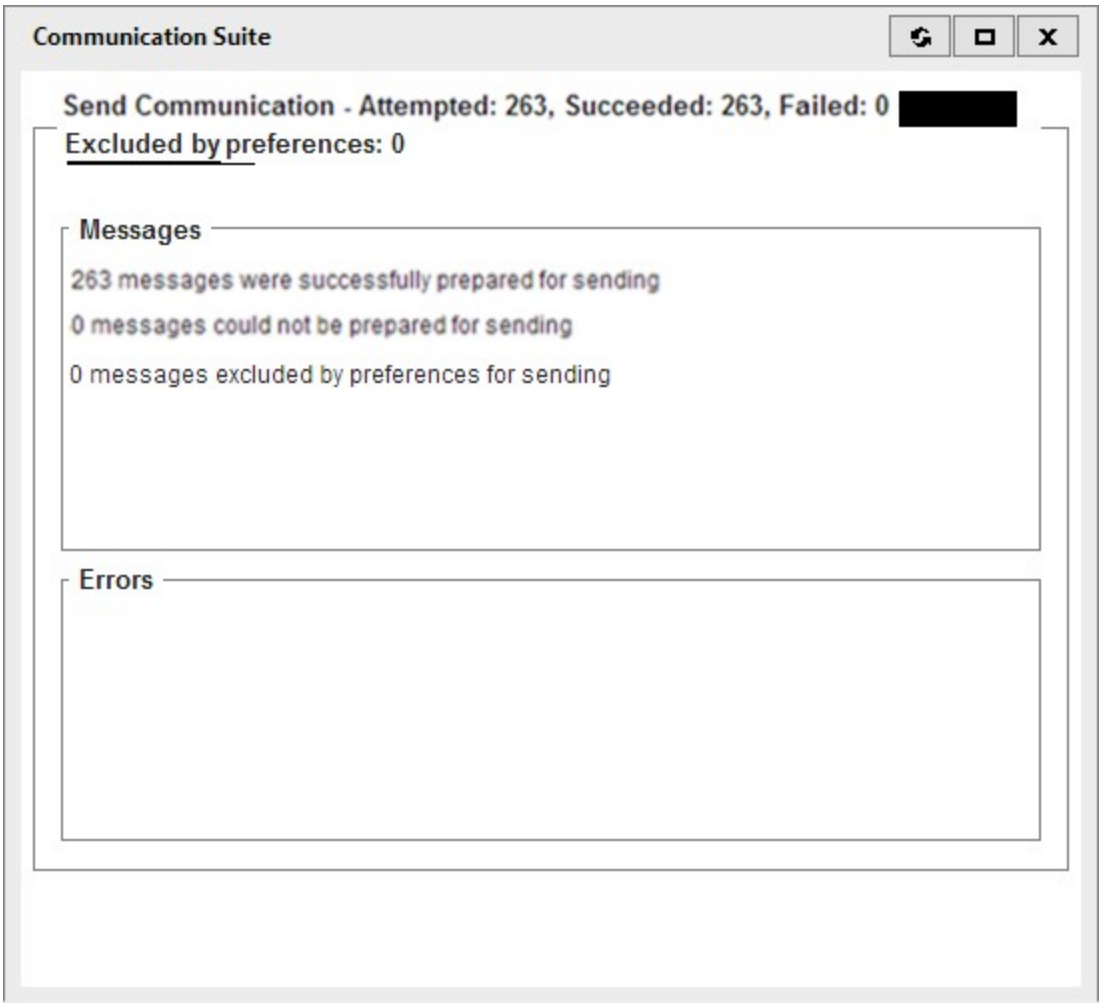
Click to view image



- Click **Preview** to view all of the emails ready to be sent to your contacts. You can navigate through the preview using the **Next** and **Back** buttons. You can make edits to specific emails or send all through the preview window.
- Click **Send Now**.
  A window will appear to update you on the status of your send attempt.

  - **Attempted** – the number of emails that your communication query tried to send.
  - **Succeeded** – the number of email that were successfully delivered.
  - **Failed** – the number of emails that did not send.
  - **Excluded by preference** – the number of emails that were not sent due to member opt-out.

  Click to view image



## Creating email communication templates

Do you regularly send standardized email messages, such as renewal notices or birthday greetings, to engage your contacts? Do you need an easy way to create and manage the numerous email templates your organization uses? To create and manage email templates, you can quickly access iMIS Communication Suite in the Staff site from the **Manage communication templates** navigation item.

**What can you do with the iMIS Communication Suite?**

- Compose an email template
- Choose email recipients by selecting an IQA query
- Add query data sources to the template allowing you to insert merge fields from additional data sources in the message
- Send an email directly to the recipients

**What methods can you use to access a saved email template?**

- Open the template directly from the Document System
- Email a contact from their staff account page and choose to **Open** in the email editor
- Email a list of contacts retrieved in a Query Menu content item and choose to **Open** in the email editor

**Creating a new email template or editing a saved template**

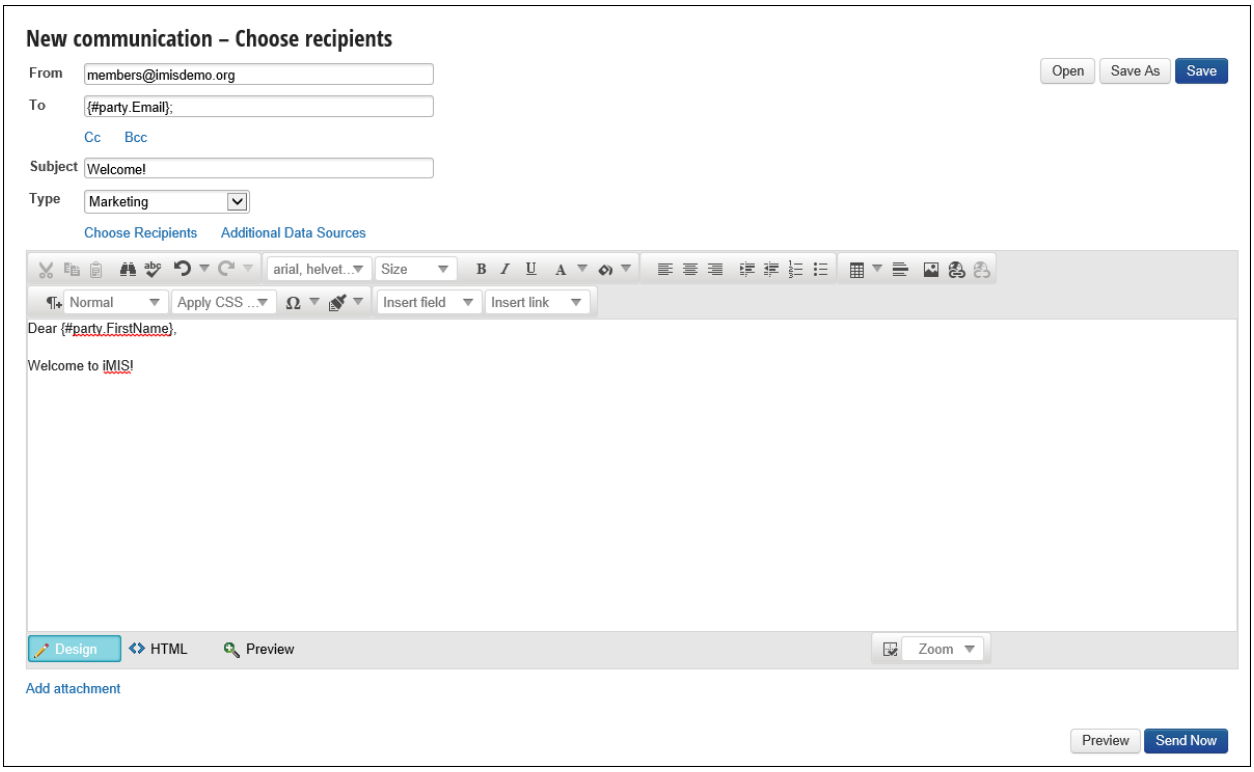
1. In the Staff site, go to **Community > Manage communication templates**.
2. Do one of the following:

- Select **New > Communication** to create a new email template.

> **Note:** If you would like to create a default communication template for all new communications, see Working with email message drafts.

- Double-click an existing email template to open it in the email editor.

Click to view image




3. Compose the email.

a. Specify the email address that the message will be sent **From**.
b. (Optional) To send copies of the email, click **Cc** and enter the email addresses.
c. (Optional) To send blind copies of the email, click **Bcc** and enter the email addresses. **To** and **Cc** recipients cannot see **Bcc** email addresses in the received email message.

> **Note:** **Cc** and **Bcc** recipients will receive one copy of every message per recipient if the email is being sent to every recipient in a query.

d. Enter a **Subject**.
e. Specify a communications **Type**.

> **Note:** The **Type** field provides your members with classes of email to opt in and out of.

f. Compose the email template message.
4. Click **Choose Recipients** to select the contacts to whom you will send the email.

a. Click **Select** to select the query you want to use as the primary data source. This query retrieves the contacts to whom you will send email. By default, the **SelectContact** query, which retrieves the selected contact (i.e., the contact you are signed in as or working on behalf of) is the primary data source. See Creating a list of contacts to email for more information.

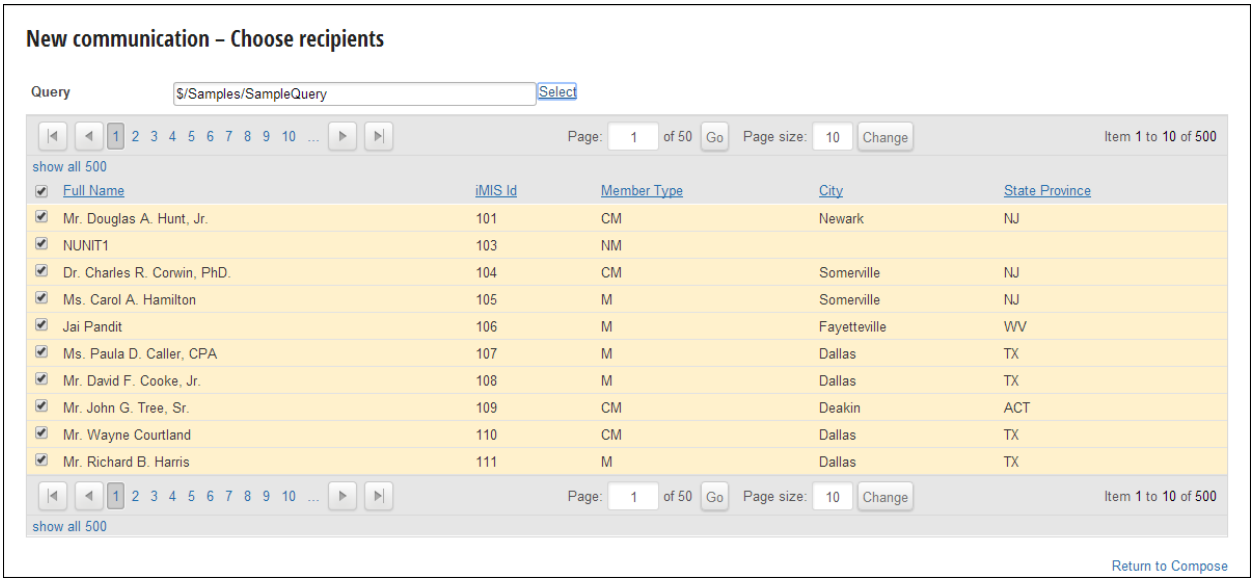
> **Note:** The query must have a column that identifies the contact's ID. Also, it cannot contain parameters.

b. Deselect the names of any contacts that you do not want to receive the email.

> **Note:** If the query contains filters with required prompts, you cannot deselect recipients from the list.

c. To continue composing your email template, click **Return to Compose**.

Click to view image




5. (Optional) Click **Additional Data Sources** to associate additional data sources with the email template. Fields from the data sources can be inserted in the email message. The party data source, which provides basic information about email recipients, is a default data source.

a. Click **Add data source**.

b. Select a query.

c. If needed, change the **Alias** for the data source.

> **Note:** The **Alias** is how you refer to the data source when creating the email communication. Fields from the data source will be prefixed by the **Alias** in the **Insert field** drop-down. The default **Alias** is the query name.

d. Click **OK**.

e. To edit a saved data source, click its edit icon and make the necessary changes.
If a filter in the additional data source matches a display column in the recipient query, the property is used to link the two queries. For example, if the data source uses **ContactKey** as a filter and the recipient query uses **ContactKey** as a display column, their information can be linked. The **Prompt** for the filter in the data source should be set to **Required**.

When the additional data source does not use filters or uses non-matching filters, only the fields retrieved in the first line of the query results can be inserted in the email template. These data sources are useful when you want to insert standalone information, such as the name of a program administrator, that is not related to the recipient list in the email message.

f. Click **Return to Compose**.

6. (Optional) Use the **Insert field** drop-down to add fields to be merged for each recipient. Available fields include columns from the recipient query and added data sources and also commonly used contact properties.
7. (Optional) To include repeating data in the email from an associated data source, use the **{foreach}** placeholder. Follow the format below:

- The opening **{foreach}** placeholder must have a closing **{/foreach}** placeholder. The content between the opening and closing placeholders is the inner content that is repeated.
- The opening placeholder should conform to the following syntax: **{foreach alias in source [orderby [property,...]] [limit [number]]}**. This syntax consists of the following components:

- **alias** - A name for a record in the data source that contains the repeating data.
- **source** - A data source associated with the email that contains the repeating data. Within the **{foreach}** placeholder, the source is referred to by the alias for the additional data source.
- **orderby** -(optional) To sort the data, use the **orderby** keyword followed by a comma-delimited list of properties to sort the data by.
- A maximum of 5 sorting properties may be specified.
- Property names must refer to properties in the data source.
- Do not specify a data source in the property names.

  The data source is ordered before the optional **limit** clause is applied.
- **limit** - (optional) To limit the number of records processed in the data source, use the **limit** keyword followed by the maximum number of records. **Limit** is applied after the entire collection has been sorted using the **orderby** clause.
- You can use HTML tags within the placeholders to format the repeating data. Add the HTML tags in the HTML view. For example, you can use the <ul> tag to create a bulleted list.
- In the following example, merge fields from an associated data source (aliased as **lines**) that retrieves product order information would repeat in the email. The **l** is the alias within the {foreach} placeholder for a record in the data source. The descriptions, quantity ordered, unit price, and extended amount properties are repeated for each record in the query results. The quantity ordered property is formatted to use 0 decimal places.

  **{foreach l in lines}**
  **{#l.Description} {#l.QuantityOrdered format="0"} @ ${#l.UnitPrice} = ${#l.ExtendedAmount}**
  **{/foreach}**

  Several lines in the email sent to a contact might look like the following:

  Certification Practice Exam 1 @ $39.99 = $39.99

Conference Proceedings 1 @ $120.00 = $120.00

Software Basics: New Hybrid Edition 1 @ $19.99 = $19.99

In this scenario, the email uses a recipient query with a filter that matches a display column in the additional data source. This links the recipient query and the data source, so only product information for the contact receiving the email displays. If the data source with the repeating data is not linked to the recipient query, all of the records in the data source will be listed in the email.

8. (Optional) Select the **Communication Preferences Link** from the **Insert Link** drop-down to include a subscription preferences hyperlink in your email. This link will enable users to manage their email subscriptions directly, without logging in to your site.

   **Note:** Your query must include contacts in order for the subscription preferences link to work.

- Provide the hyperlink text to appear in the email.
- Select a website from the drop-down. This is the website where users will manage their communication preferences.
- The link preview displays the URL of the hyperlink that will be inserted into the email. Once the link has been inserted into the email body, you can adjust it through the hyperlink designer or directly in HTML mode. Do not adjust any of the query parameters and always test any changes to the URL.

  **Note:** Ensure that the URL is accessible outside of your corporate network. If the hostname portion of the URL is localhost, an internal server name, or IP address, then the link will not work when your recipients try to click it. We recommend that you click the link to verify that you are taken to the correct page.
  The hostname for your website is determined by a setting in RiSE. To set the hostname, go to **RiSE > Site Builder > Manage websites** in the Staff site. Select the website. On the **Properties** tab, the **URL(s) pointing to the IIS website root** setting determines the hostname.

> **Warning!**
>
> Testing the link inside your corporate network does not confirm it will work when accessed over the internet. Be sure to test the link from a device not connected to the network.

9. Click **Add Attachment** to include a XML or RDL (SSRS report) attachment to your email.

> **Note:** If you want to send a personalized report to each recipient, the RDL file should contain **ContactId**, **CustomerId**, **ID**, **iMSId**, **PartyId**, or **StudentId** as a parameter. If the RDL file does not contain one of these parameters, a static report, which only uses data sources within the report and does not use recipient list query data, is sent to the recipients.

10. Click **Preview** to view a preview of the email for each recipient. Click **Prev** or **Next** to review the email for each recipient.

> **Note:** You must enter **From** and **To** addresses to preview the email.

11. To save this email as a reusable template, click **Save As**. The email template is saved in the **$/Common/Communications** folder in the Document System.
12. (Optional) Enable Advanced email when sending mass (or bulk) emails for more efficient and immediate deliverability. See Advanced Email Marketing.
13. (Optional) To send the email to the recipients immediately, click **Send Now**. A confirmation notification is displayed. The confirmation indicates that the number of messages attempted matches the number of results selected. Errors are listed individually explaining why the email was not sent.

**Using a saved email template**

1. In the Staff site, go to **Community > Manage communication templates**.
2. Select the **Templates** folder.
3. Open the email template. The email editor displays.
4. Edit the template as needed.
5. Click **Preview** to view a preview of the email for each recipient. Click **Prev** or **Next** to review the email for each recipient.

6. Click **Send Now**. A confirmation notification is displayed. The confirmation indicates that the number of messages attempted matches the number of results selected. Errors are listed individually explaining why the email was not sent.

> **Note:** You can also email a single contact from their staff account page or a group of contacts retrieved in a Query Menu content item. In the email editor, you can choose to **Open** a saved email template.

### Displaying automated alerts

You can set up your website to display automated alerts that notify your users of important information. iMIS has several out-of-the-box alerts already set up for your organization to use, but you can create customized alerts if you are licensed appropriately. Alerts that you configure can contain customized wording and formatting, and you can select where they display and who can view the alerts on your website.

For example, you can create alerts that do the following:

- Notify users when their membership expires within a specified amount of time
- Notify staff when the contact they are currently viewing is not a member of your organization

You must have the advanced tasks license key to create, copy, edit, or delete alerts.

Using out-of-the-box automated alerts

iMIS provides several out-of-the-box automated alerts tasks and alert sets that are already set up for your organization to use.

Some out-of-the-box tasks are system alerts that are enabled and included in system alert sets by default for all installs and upgrades. These system alert tasks include:

- **Membership expires soon alert** - Displays an alert when the selected contact's membership will expire within 60 days.
- **Expired membership alert** - Displays an alert when the selected contact's membership is expired.
- **Event reminder alert** - Displays an alert when the selected contact is registered for an event occurring within 21 days.

- **Missing primary email alert** - Displays an alert when the selected contact does not have a primary email entered.

  Other out-of-the-box tasks are sample alerts, designed for you to use as examples. These tasks are enabled for installs and upgrades, but since they are not included in a system alert set, they do not automatically display. These sample alert tasks include:

- **Join now alert** - Displays an alert when the selected contact is not a member, prompting them to join your organization.
- **VIP alert** - Displays an alert when the selected contact is a VIP, such as committee members with a position of Chair or President or members of the Board of Directors.
- **Major donor alert** - Displays an alert when the selected contact is assigned to a Moves Manager.

  System alert sets include:

- **Member alerts** - This set includes alerts that display to public users on the home page and their account page.
- **Staff account page alerts** - This set includes alerts that display to staff users on the staff account pages for contacts.
- **Quick Start Member alert**s - This set includes sample alerts for Quick Start Sites.

  Enabled out-of-the box alert tasks that are included in an alert set by default will automatically display to website users after an install or upgrade. The system staff account page, member account page, and member website home page already contain Alert Display content items configured to use the system alert sets.

#### Disabling and editing out-of-the-box alerts

After installing or upgrading iMIS, you should review the system alerts tasks to confirm that you do want these alerts to display to users. The review process will differ depending on whether or not you are licensed for advanced tasks.

*If you have the advanced tasks license:*

You need to review the system alert tasks to ensure that they are configured appropriately for your organization. If you do not want a system alert task to generate an alert, you need to disable the task or remove it from all alert sets.

1. In the Staff site, go to **RiSE > Process automation**.
2. Select the **Tasks** tab.
3. Open and review the alert tasks.

a. If you do not want to use a system task, deselect **Enabled**.
b. Confirm that the task uses an appropriate **Conditions** data source. The task only runs when the data source returns records.
c. Confirm that the **Alert** is configured appropriately.

4. Review the query data sources used as conditions in the enabled tasks. Data sources are located at **$/Common/Tasks/Queries** in the Document System. If you want to modify a query data source:

a. Copy the query.
b. Modify your version of the query.
c. Update the task to use the new **Conditions** data source.

5. Go to **RiSE > Process automation**.
6. Select the **Alert sets** tab and confirm that the alert tasks are located in the appropriate alert set.

*If you do not have the advanced tasks license:*

You cannot edit the out-of-the-box alert tasks, but you can control whether or not they display on your website by including or removing them from the system alert sets. If an alert task is not included in an alert set, it does not display.

1. In the Staff site, go to **RiSE > Process automation**.
2. Select the **Alert sets** tab.
3. Open the alert set you want to edit.
4. To add an out-of-the-box alert task to the set:

a. Select **Add New**.
b. Select the alert task you want to include from the **Task** drop-down.

c. Save the task.
d. Use the arrows to arrange the alert tasks in the desired order.

5. To remove an out-of-the-box alert task from the set:
a. Select the alert set.
b. Choose **Delete selected**.
c. Click **OK** to confirm the deletion.
6. Save the alert set.

### Creating automated alerts

To display automated alerts on your website, you will follow this simple process:

- Select or create data sources (queries) for your alert task
  Alerts display only when the data sources return records.
- Create alert tasks and sets
  You can create a task that displays a predefined alert on your website when specified conditions are met. Conditions instruct the task to run only when records are returned by selected data sources, filtering when the alert displays. If needed, you can specify a personalized alert message to display to a user signed in as themselves. To display the alert messages, you must group these tasks into sets.

  You must have the advanced tasks license key to create, copy, edit, or delete alert tasks.
- Add an **Alert Display** content item to the web pages where you want an alert set to display
  You can configure the **Alert Display** content item to display a specified alert set. When the data sources of a task in the alert set returns the record of the selected contact or the logged in contact, the alert displays in the content item.

  Creating data sources (queries) for your alert task
  You can use queries as data sources in alert tasks. When the specified data sources return records in an alert task, the task generates the user alert.

  You should create the query before creating the task.

1. In the Staff site, go to **RiSE > Intelligent Query Architect**.
2. Select **New > Query**.
3. Choose **Advanced mode**.
4. (**summary** tab) Enter a **Name** and **Description** of your query.

5. (**sources** tab) Add the sources for the query. You can add multiple sources.
6. If you use multiple sources, specify the **Relations** between the sources.
7. (**filters** tab) Add filters to narrow your query results.
8. (**display** tab) Select columns that you want to be available to merge into the alert message. These fields will be available from the **Insert field** drop-down when you create an alert message.
9. Save your query at **$/Common/Tasks/Queries** in the Document system.
10. Run your query to confirm that it returns the appropriate records.
11. (Optional) If you only want the alert to display when a contact views their own record or on the record of the selected contact for staff users:

a. Add the **ContactKey** property to the **filters** tab.
b. Enter @**SelectedUser** as the property **Value**.

> **Note:** If you do not add the **@SelectedUser** dynamic filter to the query, the alert will display for all contacts.

12. (Optional) (**Security** tab) Confirm that the appropriate security options for the query are selected. If a user does not have permission to run the query, they will not be able to view an alert generated by a task using the query as a data source. It is recommended that you do not limit access beyond authenticated users.
13. **Save** the query.

Creating alert tasks and sets

To generate alerts, you need to create alert tasks. For each task, define **Conditions** and an **Alert**.

The **Conditions** determine which records qualify for the alert. The **Alert** is the text, images, links, and buttons that comprise the alert. In the **Conditions**, you specify query data sources. When the data sources return records, the task generates the **Alert**.

You must have the advanced tasks license key to create, copy, edit, or delete alert tasks.

Alert sets are groups of alert tasks that you want to display as a group to users. For example, you may want to create separate alert sets for staff alerts and member alerts.

The alert set determines the order that the alerts display on the web page, so you should confirm that your alert tasks are in the correct order within the set.

> **Note:** You must configure an **Alert Display** content item to display the alert set. See Adding an Alert Display content item to a web page for more information.

Creating an alert task

1. In the Staff site, go to **RiSE > Process automation**.
2. Select the **Tasks** tab. A list of existing tasks displays.
3. Click **Add new Task**.
4. Enter a **Name** that indicates the purpose of the task.
5. (Optional) It is recommend that you enter a task **Description**.
6. Select **Alert display** as the task **Type**.
7. (**Conditions** tab) Specify the **Conditions** that must be met in order for the task to run.

a. Choose **Add data source**.
b. Enter a **Data source name**. It is recommended that you choose a name that indicates the type of records returned by the data source.
c. Select the query. By default, the **$/Common/Tasks/Queries** folder opens.
d. **Save** your data source.
e. If needed, add additional data sources.

When the task is called to display the alert, it displays if any of the selected data sources return one or more records or if no **Conditions** are defined.

See Creating data sources (queries) for your alert task for more information about creating a query to use as a task data source.

> **Note:** You can also edit and delete data sources from the **Conditions** tab.

8. (**Alert** tab) Create the **Alert** that the task generates when the conditions are met.

a. (Optional) To insert fields (such as a contact's name) from data sources in the defined **Conditions** into the alert, specify the **Data sources** you want to use.
b. You can also **Add a new data source** to be used as a source for merge fields. New data sources added on the **Alerts** tab are not added as task **Conditions**.

> **Note:** If the **Conditions** data sources apply the **@SelectedUser** value to a filter, any new data sources that you create for merging purposes should also use **@SelectedUser** with the same filter.

c. (Optional) **Add to alert set** to include the task in an alert set. You can choose from existing alert sets or select **Add new set** to create a new alert set. The task can belong to multiple sets. (You can also add tasks to an alert set when editing the set. See Creating an alert set.)
In order to display an alert to users, you must include it in an alert set and configure an **Alert Display** content item on your website to display the alert set.

> **Note:** The task is added to the bottom of the alert set. Alerts display to the user in their order in the set. To rearrange the order of tasks in the set, you must edit the alert set.

d. Enter and format the **Default message**.

i. (Optional) To insert icons in an alert, use the **Image Manager**.

ii. (Optional) To insert fields from the selected **Data sources** into the alert, use the **Insert data source field** drop-down.
You can reformat these fields with a formatting string. To specify a format, add format="FORMAT_HERE" inside the brackets, with FORMAT_HERE specified by .NET Framework Standard Format Strings. For example: {#iqa.DataAdded format="d"}.

There are both Date/Time and Number formats available:

- format="C" - Currency: Convert 123.456 to $123.46 ("C", en-US)
- format="d" - Short date: Convert 6/15/2009 1:45:30 PM to 6/15/2009 (en-US)
- format="D" - Long date: Convert 6/15/2009 1:45:30 PM to Monday, June 15, 2009 (en-US)

> **Note:** For more information on formatting types, please reference the .NET framework.

iii. (Optional) To include repeating data from a data source in the alert, use the **{foreach}** placeholder. See Creating email communication templates for more information on the **{foreach}** placeholder.

iv. (Optional) You can use the **Apply CSS Class** drop-down to apply styling and formatting to specific portions of the alert message. Select the area you want to style and choose a CSS class from the drop-down.

v. To insert a link to a content record in the message, use the **Insert link** drop-down to select **Alert link**.

- You can select a content record or enter a shortcut as the **Link Target**. If you enter a shortcut, it should include the **[Website]** variable. This format points users to the web page within the correct site, ensuring that the page displays with the correct theme. For example, if you want to link to the **EventDetail** shortcut, enter **Website/EventDetail** or **[Website]/EventDetail**.
- Enter the **Link text** that will display in the alert message.
- If needed, enter the **Url parameter** of a web page. For example, you can enter **ProductCode=FR004** to use the page for a specific product as the link destination. You can also use a variable as the **Url parameter**, such as **ProductCode={#product.ProductCode}**.

vi. (Optional) To create a second version of the alert that only displays when a contact views their own record, select **Display personalized message if a contact is viewing their own record**. Enter and format a **Personalized** message. For example, you may want a membership renewal alert to use different wording when displayed to a contact ("Your membership expires soon.") than when displayed to a staff user ("John Smith's membership expires in the next 60 days.").

9. To activate the task, select **Enabled**.
10. **Save** the task.

> **Note:** It is strongly recommended that you test the alert message to confirm that the formatting and styling is correct. After adding it to an alert set used by an Alert Display content item, find a contact for whom the alert displays and view the alert to verify its appearance.

Creating an alert set

1. In the Staff site, go to **RiSE > Process automation**.
2. Select the **Alert sets** tab.
3. Click **Add alert set**.
4. Enter a **Name** for the new alert set.
5. Enter a **Description** for the new alert set.
6. (Optional) To restrict the users who can view alerts for other contacts to authorized users only, click **Limit users who can view alerts for other contacts**.

> **Note:** Authorized users include staff users and Company Administrators for groups to which a contact belongs. Users can always view their own alerts.

7. **Save** the alert set.
8. Click **Add new** to add an alert task to the set.

a. Select a **Task**.
b. Click **Save**.

9. If needed, add other tasks to the set.
10. Use the arrows to rearrange the tasks in the set. The alerts display to the user in the set order.
11. **Save** the alert set.

Adding an Alert Display content item to a web page

To display alerts on a web page, add the **Alert Display** content item to the page. You must configure the content item to display a specified alert set.

When a task in the selected alert set runs, the task generates its alert, which then displays in the **Alert Display** content item.

1. In the Staff site, go to **RiSE > Page Builder > Manage content**.
2. Navigate to and open the content record where you want alerts to display.

> **Note:** Save your content record to a Shared Content folder to ensure that it is protected during iMIS upgrades. Any changes to sample content items run the risk of being overwritten by the system.

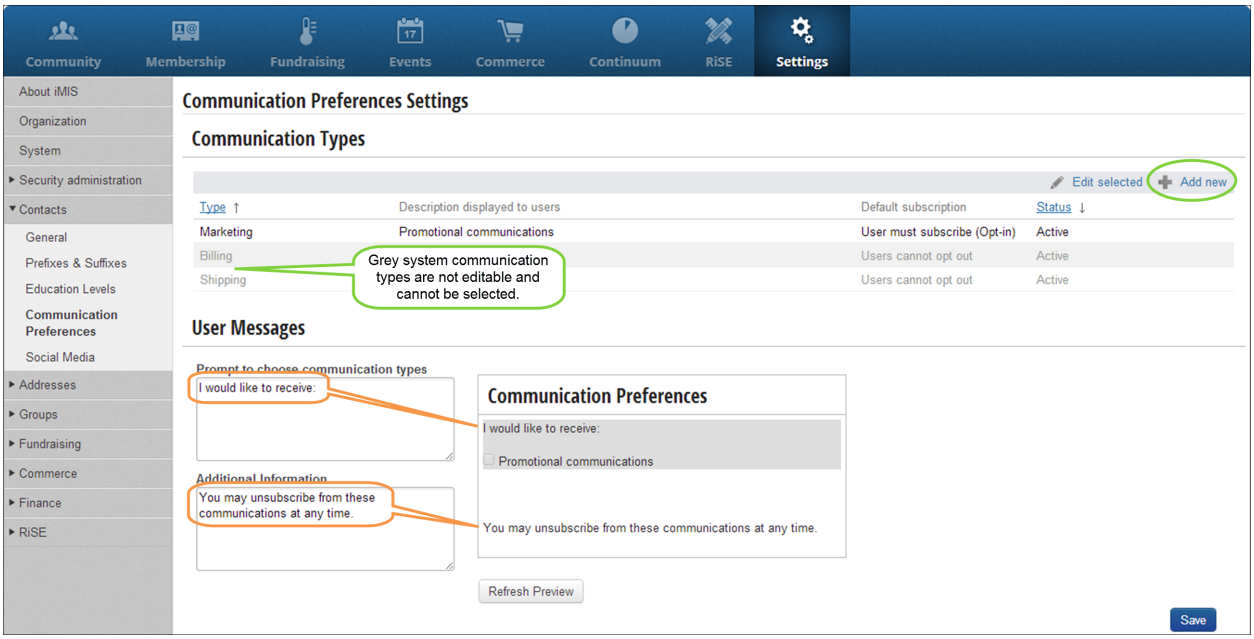
3. Select **Add content**.

4. From the **Utility** folder, select **Alert Display**.
5. Configure the **Alert Display** content item
a. (Optional) Apply an **iPart CSS class** to control the styling and formatting in the entire content item.
b. (**Required**) Select the **Alert set** that you want the content item to display. You can select multiple alert sets.
c. (Optional) If you prefer that the content item does not display on the web page when there are no alerts, select **Hide when there are no alerts**.
d. (Optional) If you do not choose to hide the content item when there are no alerts to display, you can configure a **No alerts message** that displays when there are no alerts.
e. Select and enter other configuration information as needed.
f. Click **OK**.
6. Drag the content item to the location where you want it to display.
7. **Save and publish** the content record.

## Managing communication preferences

Staff users can configure the types of communications that can be sent by your organization. This enables you to enforce the preferences of members who do not want to receive certain types of communications.

On the Staff site, go to **Settings > Contacts > Communication preferences**. You can add or edit a communication type and fine tune user messages.




### Setting the communication type

To add a new communication type:

1. Click **Add new**.
2. Enter a communication **Type**.
3. (optional) Provide a description of the communication type.
4. Define the subscription properties of the communication type:
   - **User must subscribe (Opt-in)** -- Users will not receive communications unless they subscribe.
   - **Subscribe by default (Opt-out)** -- Users will receive communications until they choose explicitly to no longer receive communications.
5. Select the status of the communication type:
   - **Active** -- the subscription properties for the communication type are applied.
   - **Inactive** -- the subscription properties for the communication type are not actively applied.
6. Click **Save**.

> **Note:** System-defined **Types** (Primary, Shipping, and Billing) cannot be edited.

### Setting the Communication preference user messages

When you configure communication types, your users will have the option to opt in or out of email communications you send from their account pages. See Changing contact Communication preferences for more information.

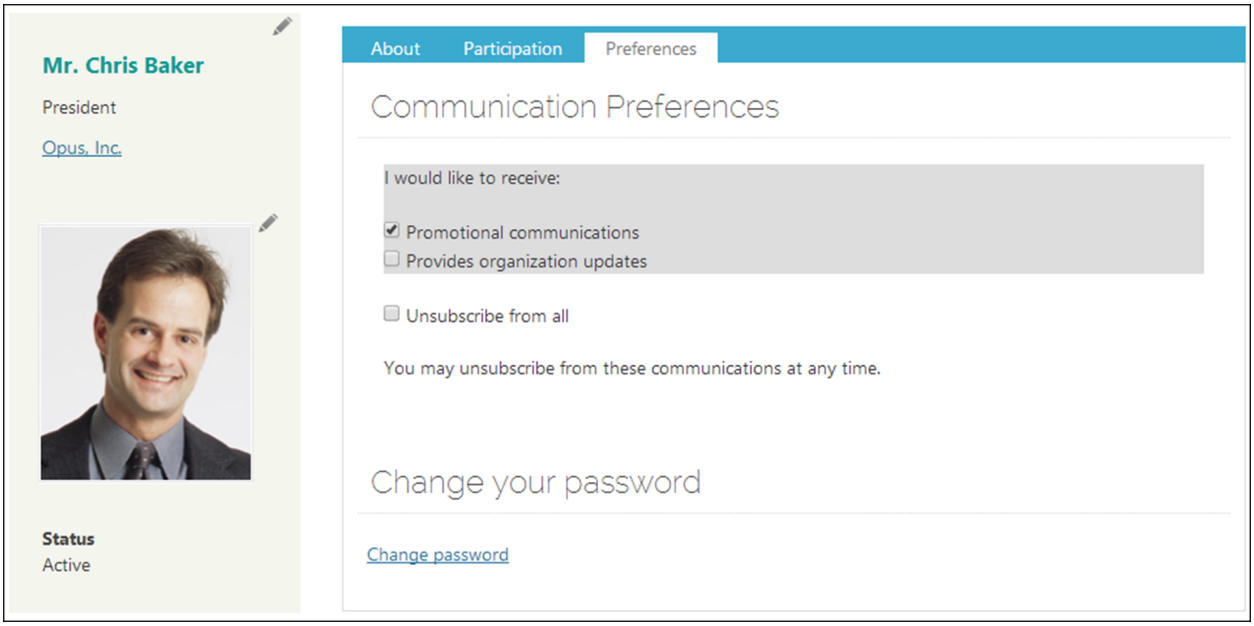
You can define the content of the communication preference dialogue.

1. From the **User Messages** section, enter the text you would like to display to your users. You can leave these fields blank.
2. Click the **Refresh Preview** button to see your changes.
3. Click **Save**.

### Changing contact Communication preferences

Staff users can adjust contact communication preferences from account pages on the Staff site. This enables users to subscribe, unsubscribe, or edit their email preferences at any time.

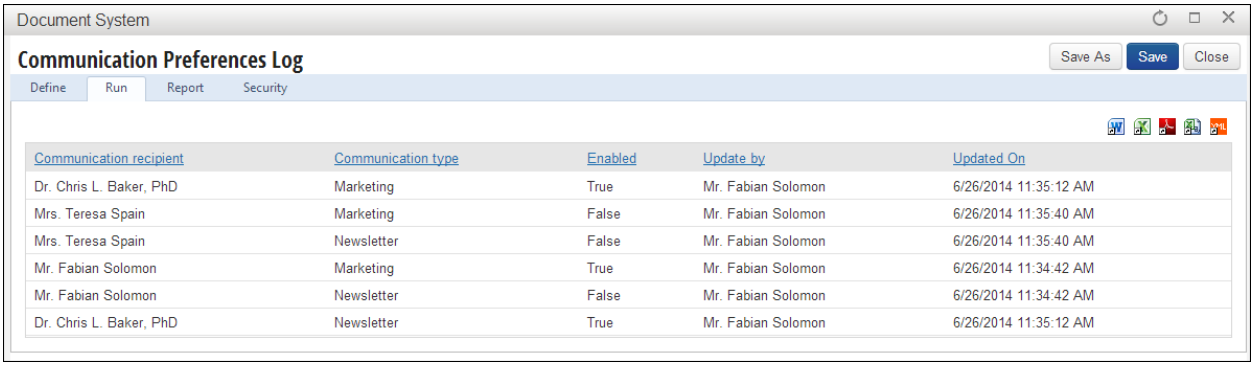
1. As a staff user, locate the desired account page and navigate to the **Preferences** tab.
2. Select the boxes associated with communication type you would like to opt in or out of.
3. Click **Save**.




### Viewing a log of communication preferences selections

Staff users can run the Communication Preferences Log query to view a log of contacts' communication preferences selections.

1. Go to **RiSE > Document system > Samples > Communication Preferences**.
2. Run the **Communication Preferences Log** query.
3. (optional) To print the log, export it to the appropriate format.




| Communication recipient | Communication type | Enabled | Update by | Updated On |
|---|---|---|---|---|
| Dr. Chris L. Baker, PhD | Marketing | True | Mr. Fabian Solomon | 6/26/2014 11:35:12 AM |
| Mrs. Teresa Spain | Marketing | False | Mr. Fabian Solomon | 6/26/2014 11:35:40 AM |
| Mrs. Teresa Spain | Newsletter | False | Mr. Fabian Solomon | 6/26/2014 11:35:40 AM |
| Mr. Fabian Solomon | Marketing | True | Mr. Fabian Solomon | 6/26/2014 11:34:42 AM |
| Mr. Fabian Solomon | Newsletter | False | Mr. Fabian Solomon | 6/26/2014 11:34:42 AM |
| Dr. Chris L. Baker, PhD | Newsletter | True | Mr. Fabian Solomon | 6/26/2014 11:35:12 AM |

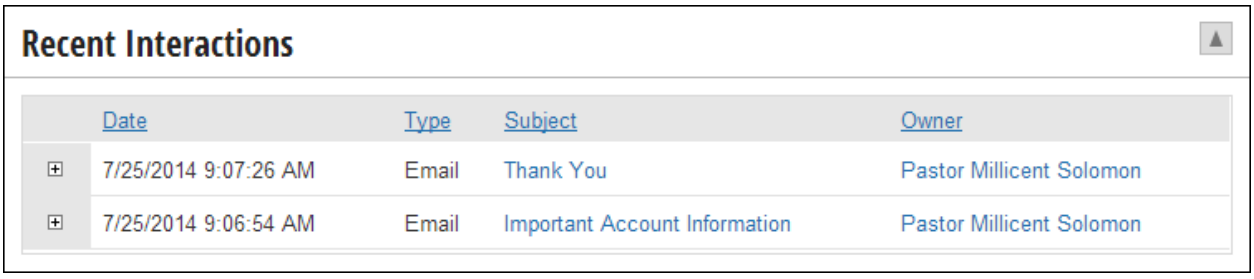
## Tracking email interactions with contacts

You can use the Interaction Log content item to track your organization's email communications with your contacts. This content item displays useful information about each email your organization has sent a contact, such as date, type, subject and owner.

To view more detailed information about the email interaction, you can click the subject line link to view the email in preview mode. You can also click the owner link to access the account page of the staff member who sent the email message.

> **Note:** If the email subject line was blank, a **View message** link displays in the Interaction Log.

An instance of the Interaction Log titled **Recent Interactions** is already included by default on the **History** tab of the staff account page, but you can add the content item to any page on your website. If the content item is placed on the member account page, contacts can view the emails sent to them.




| | Date | Type | Subject | Owner |
|---|---|---|---|---|
| ⊞ | 7/25/2014 9:07:26 AM | Email | Thank You | Pastor Millicent Solomon |
| ⊞ | 7/25/2014 9:06:54 AM | Email | Important Account Information | Pastor Millicent Solomon |

> **Note:** You can create queries that use the **InteractionLog** business object as a source to report on email interactions with contacts.

Viewing email interactions with a contact

1. Find and open the contact record.
2. Click the **History** tab. The **Recent Interactions** section, which is an Interaction Log content item, lists your staff's email interactions with the contact.

   > **Note:** An Interaction Log content item is included by default on the **History** tab of the staff account page, but you can add the content item to any page on your website.

3. (Optional) Click the **Subject** link to view the email in preview mode.
4. (Optional) Click the **Owner** link to view the account page for the staff member who sent the email message.
5. (Optional) Select the plus icon to view the events reported by Advanced Email. See Advanced Email Marketing for more information.

## Sending scheduled emails

You can automatically send pre-created emails at regular intervals on the dates and times you specify. For example, you can send the following types of emails on a regular schedule:

- New member welcome emails
- Event and product promotions
- Upcoming event reminders

To send automated emails, you need to create a scheduled task. Each task can have **Triggers**, **Conditions**, and **Actions**. A scheduled task must contain **Triggers** and **Actions**; **Conditions** are optional.

- **Triggers** determine when and how frequently the emails are sent. You can schedule one time, daily, weekly, and monthly emails.
- Optional **Conditions** allow you to filter when the emails are sent. In the **Conditions**, you specify query data sources. When you set up **Conditions** for a scheduled task, a data

source must return records when a trigger (specified date and time) occurs in order for the task to execute its **Actions** (in this case, sending the email).

- The **Actions** tell the task what to do when it runs. When the **Triggers** occur and the **Conditions** are met, the task executes the **Actions**. In this case, the action is sending an email to a recipient list generated by a selected recipient data source using a specified communication template.
  You must have the advanced tasks license key to create, copy, edit, or delete scheduled tasks.

  ### Using out-of-the box scheduled tasks

  iMIS also provides several out-of-the-box scheduled tasks that are already set up for your organization to use if you are licensed appropriately.

  Since these scheduled tasks are disabled by default, you must have the advanced tasks license key to use them.

  The out-of the box scheduled tasks include:

- **Donation thank you email** - Sends thank you emails to donors who have made a donation.
- **New member welcome email** - Sends a welcome email on a weekly basis to members who have joined in the past week.
  If you have the advanced tasks license and want to use these scheduled tasks, you may need to tailor them for your organization. In these cases, it is recommended that you copy the tasks' recipient data source queries and communications. Modify the copied queries and communications as needed. Then, edit the scheduled tasks to use your versions of the queries and communications.

1. If you need to change the recipient query used to determine who will receive an email, in the Staff site go to **RiSE > Intelligent Query Architect**.

a. Select **Common > Tasks > Queries**.

b. Copy and modify the recipient data source query used by the task.

- The **Donation thank you email** task uses the **Donations received today** query
- The **New member welcome email** task uses the **New members in the last 7 days** query

2. In the Staff site, go to **RiSE > Process automation**.
3. Select the **Tasks** tab.
4. Open the scheduled task you want to use.
5. (**Triggers** tab) Review the schedule of the included trigger, and modify it if needed.
6. (**Actions** tab) Edit the action for the **CommunicationJob**.

a. If you copied and modified the recipient query, select **Add new data source** and choose your new query. Select this new data source as the **Recipient data source**.

b. Click the communication name to modify the communication used by the task, and select **Save A**s to create a copy of the communication with your changes.

c. Save the action

7. To activate the task, select **Enabled**.
8. Save the task.

### Creating a scheduled email task

1. In the Staff site, go to **RiSE > Process automation**. A list of existing tasks displays.
2. Select the **Tasks** tab.
3. Select **Add new task**.

> **Note:** You must have the advanced tasks license key to create, copy, edit, or delete tasks.

4. Enter a **Name** that indicates the purpose of the task.
5. (Optional) It is recommend that you enter a task **Description**.
6. Select **Scheduled task** as the task **Type**.
7. (**Triggers** tab) Create **Triggers** that tell the task when to run.

a. Click **Add trigger**.

b. Select the **Frequency**. You can select:

i. **One time**
ii. **Daily**
iii. **Weekly**
iv. **Monthly**

c. If you select a **Frequency** of **Daily**, **Weekly**, or **Monthly**, you can **Schedule** the task to run at specified intervals. For example, you can schedule a weekly task to run every 3 weeks.
d. If you select a **Frequency** of **Weekly** or **Monthly**, you can select the **Day of week** or **Day of month** when the task will run. You can select multiple days of the week or month.

> **Note:** You cannot select the **Last** day of the month and specific days of the month in the same trigger. If you need to task to run on both the **Last** day of the month and specific days of the month, create two separate triggers for the task.

e. Select the **Start** date and time. When using a **Frequency** of **Daily**, **Weekly**, or **Monthly**, you can also select an **End** date and time.

> **Warning!**
>
> iMIS application pools will recycle at a randomly generated time each day between 1:00 am and 3:00 am. Tasks that are scheduled during this time might be interrupted, and interrupted tasks cannot be recovered. Do not schedule long-running tasks during this time.

f. To activate the trigger, select **Enabled**.
g. Save the trigger.
h. Add additional triggers if needed.

> **Note:** You can also edit and remove triggers from the **Triggers** tab.

8. (Optional) (**Conditions** tab) Specify Conditions that must be met in order for the task to run.

a. Choose **Add data source**.
b. Enter a **Data source name**. It is recommended that you choose a name that indicates the type of records returned by the data source.
c. Select the query. By default, the **$/Common/Tasks/Queries** folder opens.
d. Save the data source.
e. If needed, add additional data sources.

> **Warning!**
>
> When a task is triggered, it only executes its action if the selected data sources return one or more records or no **Conditions** are defined.

> **Note:** You can also edit and remove data sources from the **Conditions** tab.

9. (**Actions** tab) Define the action the task performs when it runs. In this case, you are defining the information needed to send the communication: the recipient list and email communication template.

a. Click **Add action**.

b. Select a **Type**:

- Send a communication
- Issue gift receipts

c. (Optional) Select a **Recipient data source** query, which determines the recipient list for your email. Data sources added on the **Conditions** tab are available. For more information on creating recipient data source queries, see Creating a list of contacts to email.

> **Note:** You are not required to select a recipient data source if the communication template used by the action already contains a recipient data source. If you select a recipient data source in the action and the communication also contains a recipient data source, the action's recipient data source is used.

d. (Optional) If needed, you can select **Add new data source** to select additional query data sources. These data sources will be available in the **Recipient data source** drop-down.

e. Specify the **Communication** email template that you want to send to the recipient list. You can:

- Select an existing email template.
- Create a new template.

> **Note:** For more information about templates, see Creating email communication templates.

f. Save the action.

> **Note:** You can also edit and remove actions from the **Actions** tab.

10. To activate the task, select **Enabled**.
11. Save the task.

### Sending scheduled reports

You can automatically send up-to-date reports to users at regular intervals on the dates and times you specify. The reports are sent as PDF attachments to emails. For example, you can send the following types of reports on a regular schedule:

- Event registration reports to event managers
- New member reports to the membership director
- Large or new donor reports to fundraising staff

To send automated reports, you need to create a communication and a scheduled task.

The communication provides the recipient data source, email template, and report file. The task automatically sends the email with the attached report on the scheduled days and times.

Each task can have **Triggers**, **Conditions**, and **Actions**. A scheduled task must contain **Triggers** and **Actions**; **Conditions** are optional.

- **Triggers** determine when and how frequently the reports are sent. You can schedule one time, daily, weekly, and monthly reports.
- Optional **Conditions** allow you to filter when the reports are sent. In the **Conditions**, you specify query data sources. When you set up **Conditions** for a scheduled task, a data source must return records when a trigger (specified date and time) occurs in order for the task to execute its **Actions** (in this case, sending the report).
- The **Actions** tell the task what to do when it runs. When the **Triggers** occur and the **Conditions** are met, the task executes the **Actions**. In this case, the action is sending reports as PDF attachments in emails to a recipient list generated by a selected recipient data source using a specified communication template.

  You must have the advanced tasks license key to create, copy, edit, or delete scheduled tasks.

### Creating a communication with an attached report

1. In the Staff site, go to **Community > Manage communication templates**.
2. Select **New > Communication**.
3. Create the communication you want to use in the scheduled task.

a. Enter the **From** email address.

b. Choose the email recipients that will receive the scheduled report. You can:

- Create a static recipient list by manually adding email addresses in the **To** field.
- Create a dynamic recipient list by selecting **Choose Recipients** to select a recipient data source query. For more information on creating these queries, see Creating a list of contacts to email.

c. Enter the email message.

d. Select **Add attachment** and select the SSRS report (RDL file) that you want to send the recipients.

If the recipient data source uses an ID property, such as **PartyId**, as a display column or an alias and the SSRS report uses **ContactId**, **CustomerId**, **ID**, **iMSId**, **PartyId**, or **StudentId** as a parameter, a personalized report can be generated for each email recipient. Otherwise, a static report is sent to all email recipients using the data sources defined in the report.

For more information about creating a communication, see Creating email communication templates.

### Creating scheduled report task

1. In the Staff site, go to **RiSE > Process automation**. A list of existing tasks displays.
2. Select the **Tasks** tab.
3. Select **Add new task**.

> **Note:** You must have the advanced tasks license key to create, copy, edit, or delete tasks.

4. Enter a **Name** that indicates the purpose of the task.

5. (Optional) It is recommend that you enter a task **Description**.
6. Select **Scheduled task** as the task **Type**.
7. (**Triggers** tab) Create **Triggers** that tell the task when to run.
   a. Click **Add trigger**.
   b. Select the **Frequency**. You can select:
      i. **One time**
      ii. **Daily**
      iii. **Weekly**
      iv. **Monthly**
   c. If you select a **Frequency** of **Daily**, **Weekly**, or **Monthly**, you can **Schedule** the task to run at specified intervals. For example, you can schedule a weekly task to run every 3 weeks.
   d. If you select a **Frequency** of **Weekly** or **Monthly**, you can select the **Day of week** or **Day of month** when the task will run. You can select multiple days of the week or month.

      **Note:** You cannot select the **Last** day of the month and specific days of the month in the same trigger. If you need to task to run on both the **Last** day of the month and specific days of the month, create two separate triggers for the task.

   e. Select the **Start** date and time. When using a **Frequency** of **Daily**, **Weekly**, or **Monthly**, you can also select an **End** date and time.

      **Warning!**

      iMIS application pools will recycle at a randomly generated time each day between 1:00 am and 3:00 am. Tasks that are scheduled during this time might be interrupted, and interrupted tasks cannot be recovered. Do not schedule long-running tasks during this time.

   f. To activate the trigger, select **Enabled**.
   g. Save the trigger.
   h. Add additional triggers if needed.

      **Note:** You can also edit and remove triggers from the **Triggers** tab.

9. (Optional) (**Conditions** tab) Specify Conditions that must be met in order for the task to run.

a. Choose **Add data source**.
b. Enter a **Data source name**. It is recommended that you choose a name that indicates the type of records returned by the data source.
c. Select the query. By default, the **$/Common/Tasks/Queries** folder opens.
d. Save the data source.
e. If needed, add additional data sources.

> **Warning!**
>
> When a task is triggered, it only executes its action if the selected data sources return one or more records or no **Conditions** are defined.

> **Note:** You can also edit and remove data sources from the **Conditions** tab.

10. (**Actions** tab) Define the action the task performs when it runs. In this case, you are selecting the email communication template with an attached SSRS report that the task sends.

a. Click **Add action**.
b. Select **Send a communication** as the action **Type**.
c. (Optional) If you want to over write the recipient data source in your communication or the communication does not contain a recipient data source, select a **Recipient data source**. Data sources added on the **Conditions** tab are available.
d. (Optional) If needed, you can select **Add new data source** to select additional query data sources. These data sources will be available in the **Recipient data source** drop-down.
e. Specify the **Communication** email template that you want to send to the recipient list. To send a report as a PDF attachment to the email, an SSRS report (RDL file) must be attached to the email template. You can:

- Select an existing email template.
- Create a new template.

f. Save the action.

> **Note:** You can also edit and remove actions from the **Actions** tab.

11. To activate the task, select **Enabled**.
12. Save the task.

## Creating online donation pages

Your organization's members and website visitors want a convenient way to donate online. iMIS makes it easy for your supporters to contribute to the causes and projects your organization champions by providing an out-of-the-box **Give Now** web page to collect donations.

If you want to customize your online donation page, you can copy and modify the **Give Now** page or build your own customized donation page.

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Click to view image

80%
achieved

171,405
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7
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Share this page

# Give Now

Your donations are put to use immediately. We have projects running year round that need your support--donate today to make a difference!

## Support the Water Preservation Fund

Large or small, your donation has an immediate impact on our efforts to protect freshwater sources and wetlands all over the world.

* **Gift Amount**

○ 25.00 ○ 50.00 ○ 100.00 ○ 250.00 ○ Other




## Your Donations Make a Difference

Every year the Foundation contributes to hundreds of projects to help restore the environment. Here's some of the ways that your donations help:

**25.00** plants 10 trees in deforested areas
**50.00** is enough to build a new frog pond
**100.00** pays for 3 wildlife monitoring cameras
**250.00** feeds 10 numbats for 6 months

## My details

**Name(s) I would like to be recognized as for this gift:**
Mr. Fabian Solomon

☐ **Please make this an anonymous gift**

**Is this Donation a tribute?**

○ **Yes**
◉ **No**

## Payment details

**Pay with PayPal**

What is PayPal?
You will be taken to PayPal to complete your purchase.

Check Out with PayPal

**Other Payment Options**

| | |
|---|---|
| **Payment Method** | American Express ▼ |
| * **Card Number** | |
| * **Name on Card** | Fabian Solomon |
| * **Expiration Date** | 01 ▼ 2014 ▼ |
| **CSC** | |
| **Card Address** | 6352 Ernest St.<br>Houston, TX 70645<br>UNITED STATES<br>Choose another address |

**Submit Donation**

Building a custom donation page

If you would prefer not to use the out-of-the-box **Give Now** web page, iMIS provides the ability to build a custom donation page for your organization. You have flexibility in how you design your donation page, but there are a few requirements that must be met.

You must also associate the donation with a specific distribution, which is credited with the donation.

### To build a donation page

1. Go to **RiSE > Page Builder > Manage content** and create a new content record.
2. Add the necessary content items to your content record.

   Content items for donation pages

   **Donation Creator** - Allows the entry of donation information for donations. Select the following configuration options:

- **Display the distribution description**: Enable if you want the associated distribution's description to display above the **Give Amount** field.
- **Processing Mode**: Select **Process donation immediately** to process the donation immediately or **Add donation to cart** to add the donation to your cart where a user can pay for it along with any other items in the cart when they check out.
- **Distribution Mode**: Associate the donation with a distribution. See Associating donations with a distribution target for more information.
- **Commit sequence**: 2 if you choose to process the donation immediately. You do not need to choose a commit sequence if you add the donation to the cart.
- **Personalized gift array query**: If you would like **Gift Amount** field to populate based on the user's prior giving history, select the **$/Fundraising/DefaultSystem/Queries/ProductFundraising/GiftArray** query.

  By default the **Gift Amount** field is empty. You can pre-populate the field with a personalized gift array as described above or display a pre-defined array of gift amounts or one set gift amount. See Pre-populating the Gift Amount field for more information.

**Recurring Donation Creator** - Allows the user to set their donation to repeat at a specified time interval (weekly, monthly, annually, etc.). Select the following configuration options:

> **Note:** In order to use AutoPay you must have a license key. Contact ASI for more information.

- **Commit sequence**: 3 if you choose to process the donation immediately. You do not need to choose a commit sequence if you add the donation to the cart.
- **'No' radio option text**: Configure the text for the '**No**' radio option.
- **'Yes' radio option text**: Configure the text for the '**Yes**' radio option.
- **Gift frequency text**: Configure the text for the gift frequency option.

**Display Name Editor** – (optional) Allows donors to specify the name to be listed in all reports and acknowledgments for their donation (for example, Bob and Sue Smith). You can only use this content item if the Donation Creator is configured to process the donations immediately. If you use the Display Name Editor, you must create a connection to the Donation Creator. Select the following configuration options:

- **Commit sequence**: 3
- **Salutation Type**: Donation List As

**Tribute Gift Editor** – (optional) Allows donors to make a donation in honor, memory, or recognition of someone. You can only use this content item if the Donation Creator is configured to process the donations immediately. If you use the Tribute Gift Editor, you must also create a connection to the Donation Creator. Select the following configuration options:

- **Commit sequence**: 4

**Contact Account Creator** – Allows unauthenticated users to create an account when they submit a donation. Select the following configuration options:

- **Hide for authenticated users**: Enable
  Users must log in to make a donation, so that their contribution is recorded against an iMIS ID. Enable this option so that your supporters are only prompted to create an account if they are not logged in.
- **Include option to create an account**: Enable
- **Require username and password**: Enable

- **Commit sequence**: 1

**Payment Creator** – Required to allow entry of payment information. For how to set up PayPal support, see PayPal Express Checkout Integration in Payment Authorization. Select the following configuration options:

- **Purpose**: Donation
- **Display Update button**: Disable
- **Commit sequence**: 5

**Submit Order Button Link** – Required to submit the donation.

- URL for order **confirmation**: Select a content record to display after the user has submitted a donation.

> **Note:** A sample content record thanking the user for their contribution is available at **@/iCore/Fundraising/Donation Thank You Page**. Make a copy of this content record if you want to use it in your website.

- **Purpose**: Donation
- **Commit sequence**: 6

3. (optional) If you added the **Display Name Editor** or the **Tribute Gift Editor** content item to your donation page, you must create a connection between that content item and the Donation Creator content item.

   To create the connection

1. From the **Display Name Editor** or **Tribute Gift Editor** content item's title-bar menu, select **Connect**.
2. Click **Create a new connection**.
3. Select your **Donation Creator** content item as the **Object Consumer**.
4. Select **Connect**.

4. **Save** and **publish** the content record.

   Providing suggested donation amounts

You can pre-poplulate the **Gift Amount** field in the Donation Creator content item on your donation page with an array of gift amounts or a set gift amount.

To pre-populate the Gift Amount field

1. In the Advanced Accounting Console, go to **Settings > Membership > Set up tables > Lookup/validation tables.**
2. Select or create a new **GIFT_AMOUNT** table.
3. Enter the distribution code for the gift item.
4. In the **Description**:

a. To display an array of gift amounts, enter a comma-separated list of gift values that you want to appear in the list. For example, entering 50,100,200,500 results in a radio list of those values displayed on the page. To preselect an option, precede the number with an asterisk: 15,*25,75.

b. To display a single **Gift Amount** field with a pre-populated gift amount, enter a single amount. For example, 25.

5. **Save** your changes.

Associating donations with a distribution target

Distributions allow you to predefine combinations of funds, campaigns, and appeals. When a gift is received, it is usually distributed among a fund, a campaign, and an appeal. A distribution does not have to include a campaign or an appeal, but it must include a fund. If you use a general ledger system, the distribution also determines the general ledger income account to be credited.

You must be associate every donation with an iMIS distribution in the Advanced Accounting Console. The distribution is credited with the donation.

You can tie your donation page to a single distribution or use the distribution specified in the **ItemId** parameter of an URL that links to the page. If you choose the second option, you can have multiple URLs with different **ItemId** paramenters that link to your donation page.

The distribution description can also determine the description that displays above the **Give Amount** field on the donation page if you configure the **Donation Creator** content item to include this information.

To associate the donation with a  distribution

1. In the Advanced Accounting Console, go to **Settings > Fundraising > Set up tables > Distributions and premiums** to define the distribution. The distribution does not have to be associated with an **Appeal** and **Campaign**, but it is required to be associated with a **Fund**.
2. In the **Donation Creator** content item on your donation page, configure the distribution option.

- **Set the distribution by an ItemId URL parameter** – Indicates that the Donation Creator content item will be dynamically populated with a distribution based on the value of an **ItemId** parameter in the URL.

  For example, let's say you want to provide a list of all of your current fundraising campaigns on your homepage, each of which links to a donation page for the cause. Instead of creating a custom donation page for each campaign, you can set up a single content record that contains the **Donation Creator** configured to **Set the distribution by an ItemId URL parameter**. Then you only have to add the URL parameter and distribution code to each of the links. When clicked, your content record displays the description and gift amount options associated with the distribution code.

  To use relative links, absolute links, or navigation items to link to your donation page

  - **Relative link**: To assign the URL parameter from a relative link pointing to a content record published to your website, use the **Content Link** content item. For example, if you have a content record with a **Publish File Name** of **DonateNow** in the **@/CoreContent/Fundraising** content folder, and you want the link to populate the **Donation Creator** with the **BLDG** distribution, then enter the following relative URL in the Content Link content item's **URL for link** field: **~/iMIS/Fundraising/DonateNow.aspx?ItemId=BLDG**.
  - **Absolute link**: To assign the URL parameter through an absolute link to the page, add the URL parameter to the link's URL. For example, if you want to create a link to a donation page for the **BLDG** distribution, set the URL to **http://mywebsite.com/donationpage.aspx?ItemId=BLDG**.
  - **Navigation item**: To assign the URL parameter from a navigation item, enter ItemId=DistributionCode in the **URL Parameters** field of the navigation item pointing to your content record. For example, **ItemId=BLDG**.

- **Select a distribution** – Specifies a single distribution code to be used for any donations made from the content item. If selected, this option overrides the value of an **ItemId** parameter in the URL.

### Creating online donation pages

Your organization's members and website visitors want a convenient way to donate online. iMIS makes it easy for your supporters to contribute to the causes and projects your organization champions by providing an out-of-the-box **Give Now** web page to collect donations.

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Mr. Fabian Solomon

☐ **Please make this an anonymous gift**

**Is this Donation a tribute?**

○ **Yes**
◉ **No**

## Payment details

**Pay with PayPal**

What is PayPal?
You will be taken to PayPal to complete your purchase.

Check Out with PayPal

**Other Payment Options**

| | |
|---|---|
| **Payment Method** | American Express ▼ |
| * **Card Number** | |
| * **Name on Card** | Fabian Solomon |
| * **Expiration Date** | 01 ▼ 2014 ▼ |
| **CSC** | |
| **Card Address** | 6352 Ernest St.<br>Houston, TX 70645<br>UNITED STATES<br>Choose another address |

**Submit Donation**

Building a custom donation page

If you would prefer not to use the out-of-the-box **Give Now** web page, iMIS provides the ability to build a custom donation page for your organization. You have flexibility in how you design your donation page, but there are a few requirements that must be met.

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- **Commit sequence**: 2 if you choose to process the donation immediately. You do not need to choose a commit sequence if you add the donation to the cart.
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  Users must log in to make a donation, so that their contribution is recorded against an iMIS ID. Enable this option so that your supporters are only prompted to create an account if they are not logged in.
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**Payment Creator** – Required to allow entry of payment information. For how to set up PayPal support, see PayPal Express Checkout Integration in Payment Authorization. Select the following configuration options:

- **Purpose**: Donation
- **Display Update button**: Disable
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**Submit Order Button Link** – Required to submit the donation.

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- **Commit sequence**: 6

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3. Enter the distribution code for the gift item.
4. In the **Description**:

a. To display an array of gift amounts, enter a comma-separated list of gift values that you want to appear in the list. For example, entering 50,100,200,500 results in a radio list of those values displayed on the page. To preselect an option, precede the number with an asterisk: 15,*25,75.

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You must be associate every donation with an iMIS distribution in the Advanced Accounting Console. The distribution is credited with the donation.

You can tie your donation page to a single distribution or use the distribution specified in the **ItemId** parameter of an URL that links to the page. If you choose the second option, you can have multiple URLs with different **ItemId** paramenters that link to your donation page.

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  - **Navigation item**: To assign the URL parameter from a navigation item, enter ItemId=DistributionCode in the **URL Parameters** field of the navigation item pointing to your content record. For example, **ItemId=BLDG**.

- **Select a distribution** – Specifies a single distribution code to be used for any donations made from the content item. If selected, this option overrides the value of an **ItemId** parameter in the URL.

### Importing donor and donation data

Many organizations have third-parties, such as volunteers or telemarketers, collect donations for them. Staff users can import donor and donation data into iMIS if it is saved in a file format recognized by iMIS.

If the donor is already a contact, the import process creates and posts a donation, but will not update contacts or create new contacts for organization donors. If the donor is a person but not a contact, the import process creates a contact record for the donor and also creates and posts the donation.

Staff users can view information in the **Review log files** list about both donations that post successfully and errors in the import process.

#### Creating the donor and donation data file

In order to import donor and donation data, you must enter the data in a tab-delimited file that contains the columns listed in the table below. Most spreadsheet applications, such as Microsoft Excel, can create tab-delimited files (.txt). You must arrange the columns in the tab-delimited file in the same order as they are listed in the table.

Click to view table

| Column | Notes |
|---|---|
| A. iMIS ID | If an **iMIS ID** is not present and the donor is a person, a new contact is added for the donation.<br><br>If an **iMIS ID** and the required contact fields (**First name** and **Last name** for a person or **Organization** name for an organization) are not present, the row is not imported.<br><br>If the **iMIS ID** does not match an existing **iMIS ID**, the data cannot be successfully processed. |

| | |
|---|---|
| **B. Title** | For example, **President** or **Director**. |
| **C. First name** | If a **First name** is not present, the donor will be considered an organization.<br><br>If the **iMIS ID**, **First name**, and **Organization name** are not present, the row is not imported. |
| **D. Last name** | If a **Last name** is not present, the donor will be considered an organization.<br><br>If the **iMIS ID**, **Last name**, and **Organization name** are not present, the row is not imported. |
| **E. Organization name** | If an **Organization name** is not present, the donor will be considered a person.<br><br>If the **iMIS ID**, **Organization name**, **First name**, and **Last name** are not present, the row is not imported.<br><br>If an **Organization name**, **First name**, and **Last name** are present, a contact for the person is created or updated using the **Organization name** as the primary organization for the person. |
| **F. Email address** | |
| **G. Phone** | |
| **H. Country** | If a **Country** is not present, it defaults to the default country in the general finance settings. Navigate to **Settings > Finance > General** to change this setting.<br><br>If a **Country** is present, it must match an **iMIS country code**. If it does not match a country code, the data cannot be successfully processed. |
| **I. Address line 1** | |

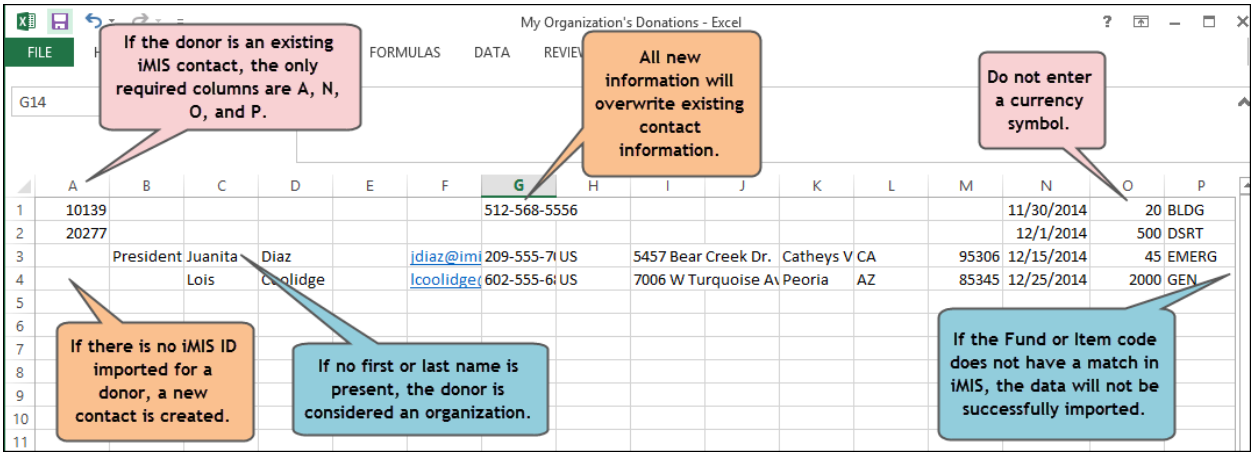
| | |
|---|---|
| J. Address line 2 | |
| K. City | |
| L. State / Province | If a **State** or **Province** is present, it must match an **iMIS state or province code**. If it does not match a state or province code, the data cannot be successfully processed. |
| M. Postal/Zip Code | |
| N. Gift date | The **YYYY-MM-DD** format is preferred, but other formats are accepted if they are valid for your web browser's language setting. If a **Gift date** is not present, it defaults to today's date. |
| O. Gift Amount | Do not enter a currency symbol or comma. For example, enter 1000 or 1000.00 but not $1,000. During the import, the donation amount formats according to your web browser's language setting. |
| P. Fund code | If the **Fund code** does not have a match in iMIS, the data cannot be successfully processed. |

**Note:** While entering data in the tab-delimited file, you may want to use a column header row for organizational purposes. You must, however, remove the column headers before importing the data file to avoid receiving an error.

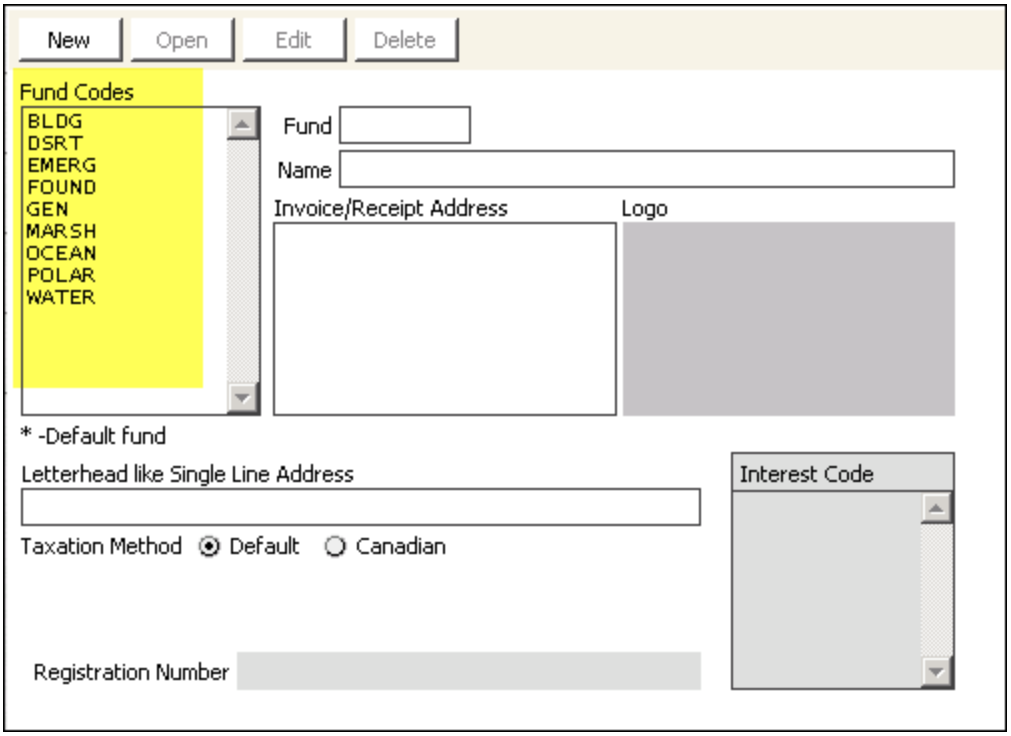
You can import donor information, donation information, or both at the same time. Each row contains donor information that the import process adds as a new contact or uses to update an existing contact if the donor is a person. It can also contain donation information that the import process adds to the contact.

**Follow the following steps to create your donor and donation data file:**

1. Open a new spreadsheet document and enter in your donor and donation data.



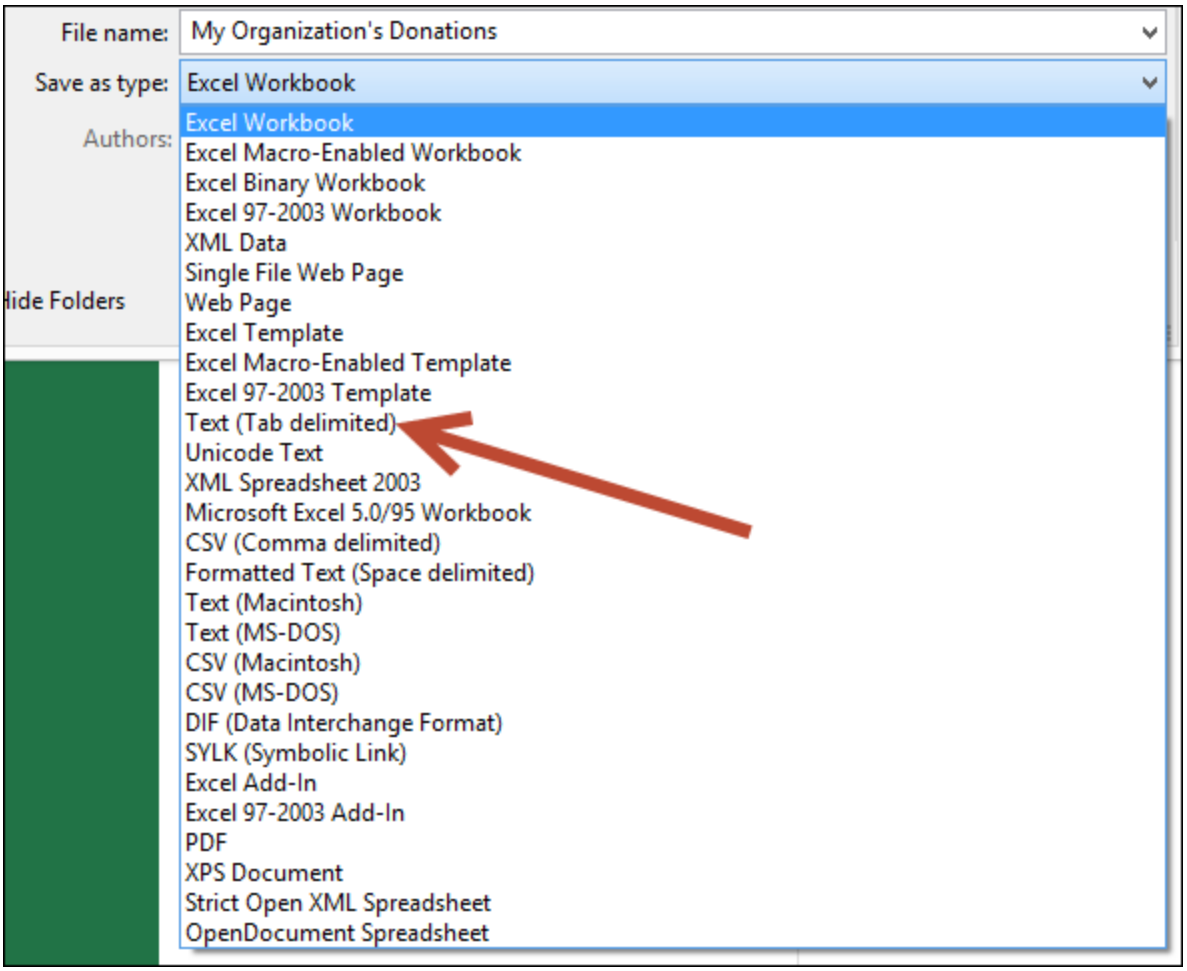

2. To find the **Fund code**, open the **Advanced Accounting Console**, and go to **Settings > Fundraising > Set up tables**.




3. After your donor and donation data is entered, **Save** the document in two different file formats:

1. **.XLSX** - Save the data as an XLSX file. If errors occur during the import process, correct the errors in this file and upload again.

2. **.txt** - This file format allows the data to be **tab-delimited**, the file format recognized by iMIS.




### Organization vs. Contact

### Organization:

- The only required contact field for an organization is the Organization name. If this field is not present, the row is not imported.
- If an Organization name is not present, the donor will be considered a person.
- If an Organization name, First name, and Last name are present, a contact for the person is created or updated using the Organization name as the primary organization for the person.

### Contact:

- The required contact fields for a person is first and last name. If a first or last name is not present, the row is not imported.
- If a First or Last name is not present, the donor will be considered an organization.
- If an iMIS ID is not present, a new contact is added for the donation.

**To import the donor and donation data**

1. In the Staff site, go to **Fundraising > Import donations**.
2. Confirm that **Donations** is selected in the **File Format field**.

   **Note:** The **Import donations** page uses the **File Importer for Web Services** content item to import donor and donation data.

3. **Browse** to select the tab-delimited (.txt) file that contains your donor and donation data.
4. Click **Upload**. The tab-delimited file you Upload converts to an XML file that displays in the **Process import files list**.

   **Note:** Rows in the tab-delimited file that contain improperly formatted data or that do not contain required fields do not import. Error messages list the rows that do not import and explain why these rows cannot import. Even if the file contains rows that cannot import, the rows that contain all of the required information in the proper formats will still import.

5. If you want to correct errors in the data file, click **Download errors** to download a tab-delimited file that only contains the rows that did not import. This button will not appear if you had no errors, but if your import did contain errors, you can correct the errors in the file and try to import again.
6. Click **Process** to the right of the file you imported. The donor and donation data processes, adding and updating contacts for the donors and adding and posting donations. The XML file is removed from the file list.
7. View information about the processed data in the **Review log files list**.

- If the import succeeds, **Success - [import file name].log** displays in the **Review log files** list. Open the file to view each donation that successfully posted.
- If the import fails, because one or more donations could not be processed due to inaccurate donor or donation data , two files are created:

- **Warnings - [import file name].log** displays in the **Review log files** list. Open the file to view each donation that could not be processed and each donation that successfully posted. Review the error messages to determine how to resolve the problems.
- **[import file name] - error - [timestamp].xml** is created in the **Process import files** list. This file only lists the donor and donation data that did not process successfully. After you resolve the problems listed in the **Warnings - [import file name].log** file, **Process** this file to complete the import.

## Recurring donations

**AutoPay** provides the ability for organizations to use a tokenization engine to process credit card and bank account information for recurring payments while maintaining PCI compliance.

AutoPay provides organizations the ability to support automatic renewal of membership fees and recurring donations. AutoPay uses a tokenization engine to process credit card and bank account information for recurring payments while maintaining PCI compliance.

> **Note:** In order to use AutoPay for recurring payments, you must have a license key. Contact ASI for more information.

AutoPay is available in the **Join Now** and **Give Now** pages of your website. Using Staff site settings, you can set your website to invite the member and donor to opt in or out of automated renewals, or even have the option switched on for all new members and donations.

Members can opt in when they join or when they renew. Members who have opted in to Automatic membership renewals still have the option to pay by alternate means of payment when renewing or opt out altogether.

When making a donation online, donors are invited to make Recurring donations with monthly, quarterly or annual payments. Staff users can cancel payments at the donor's request.

> **Note:** AutoPay is available only for billing items set up with an **accrual** accounting method.

The following are required in order to use AutoPay:

- An AutoPay license key. Contact ASI for more information.
- A tokenization engine (iMIS-hosted or self-hosted)
- **Payflow Pro** payment gateway account

Some key features and benefits of AutoPay include:

- Offering members and donors the choice of easy, automated payments.
- Maximizing member and donor retention with automated renewals and recurring donations.
- Enabling staff to discontinue automatic payments for members or donors at any time.
- Using settings in the Staff site to set automatic payment options in the join or renewal process as off, opt-in, opt-out, always on or required.
- Using settings in the Staff site to set recurring donation options in the online Give Now pages as either off, opt-in, opt-out or always on.
- Differentiating between automatic and non-automatic renewals so your members are billed accurately.
- Staff manually adding members to the automatic membership renewal program.
- Staff previewing membership fees and donations to be collected, and submit for collection.
- Securely storing credit card details in a PCI-compliant manner.

### Recurring donations

When enabled, AutoPay empowers your members to create a recurring donation that can be automatically deducted from their payment methods at an interval they select: monthly, quarterly, or annually.

> **Note:** AutoPay is optimized for use with the **Give Now** page. The option to create a recurring donation will not be available for donations added to the cart.

Setting up recurring donations

An iMIS-hosted tokenization engine supports the **Payflow Pro** payment gateway for credit card transactions.

To use AutoPay, you must initially configure the Staff site for recurring donations.

> **Note:** In order to use AutoPay you must have a license key. Contact ASI for more information.

Why doesn't **Automatic Payments** display on my **Commerce** menu when my site is licensed and configured for AutoPay?
If your site is licensed for AutoPay and you have followed the configuration steps outlined in this article, you might need to republish the Staff site's sitemap to get the **Automatic Payments** navigation item to display on the **Commerce** menu:

1. In the Staff site, go to **RiSE > Site Builder > Manage Sitemaps**.
2. Select the **Staff** site from the drop-down list of sites in the left pane.
3. Click **Publish**.
   The Automatic Payments navigation item (and sub-navigation items) should display on your **Commerce** menu.

Configure recurring donations

1. In the Staff site, go to **Settings > Commerce > General**.
2. Enter the **AutoPay service address**. This is the address to the tokenization engine. You must have access to a tokenization engine in order to perform recurring transactions. Enter the AutoPay service address in the following format:
   `https://localhost/DataVault0`

   Where *localhost* is the name of a server and *DataVault0* is the web site alias.

> **Note:** Contact ASI Hosting for more information about the iMIS-hosted tokenization engine.

3. Select the **Recurring donations** option:
- **(None)** – No option selected.
- **Allow users to enable** – Users can enable recurring payments. By default a donation is a one-time transaction, but the donor can change this to a recurring transaction.
- **Disabled** – Recurring payments are not allowed. Donors can only make one-time donations.
- **Enabled by default** – Recurring payments are enabled by default. By default a donation is a recurring transaction, but the donor can change this to a one-time donation.
4. **Save** these settings.
5. Go to **Settings > Commerce > Automatic payment gateways**.
6. Select the desired gateway from the **Gateway type** drop-down.
7. Enter the required information and click **Save**.
- **Payflow Pro**
- **Organization name** – Your iMIS organization name. This is populated with information from your database.
- **Default for payment type** – Select the default payment type for this gateway:
- **(None)**
- **Credit Cards**
- **Gateway name** – The selected gateway.
- **Vendor** – The Payflow Pro user name.
- **Partner** – The Payflow Pro partner name that was obtained when you created your account.
- **Host URL Address** – The Payflow Pro host address.
- **User** – The Payflow Pro user name.
- **Password** - The password you were provided during the sign-up process.
For more information, go to https://www.paypal.com/us/webapps/mpp/payflow-payment-gateway.

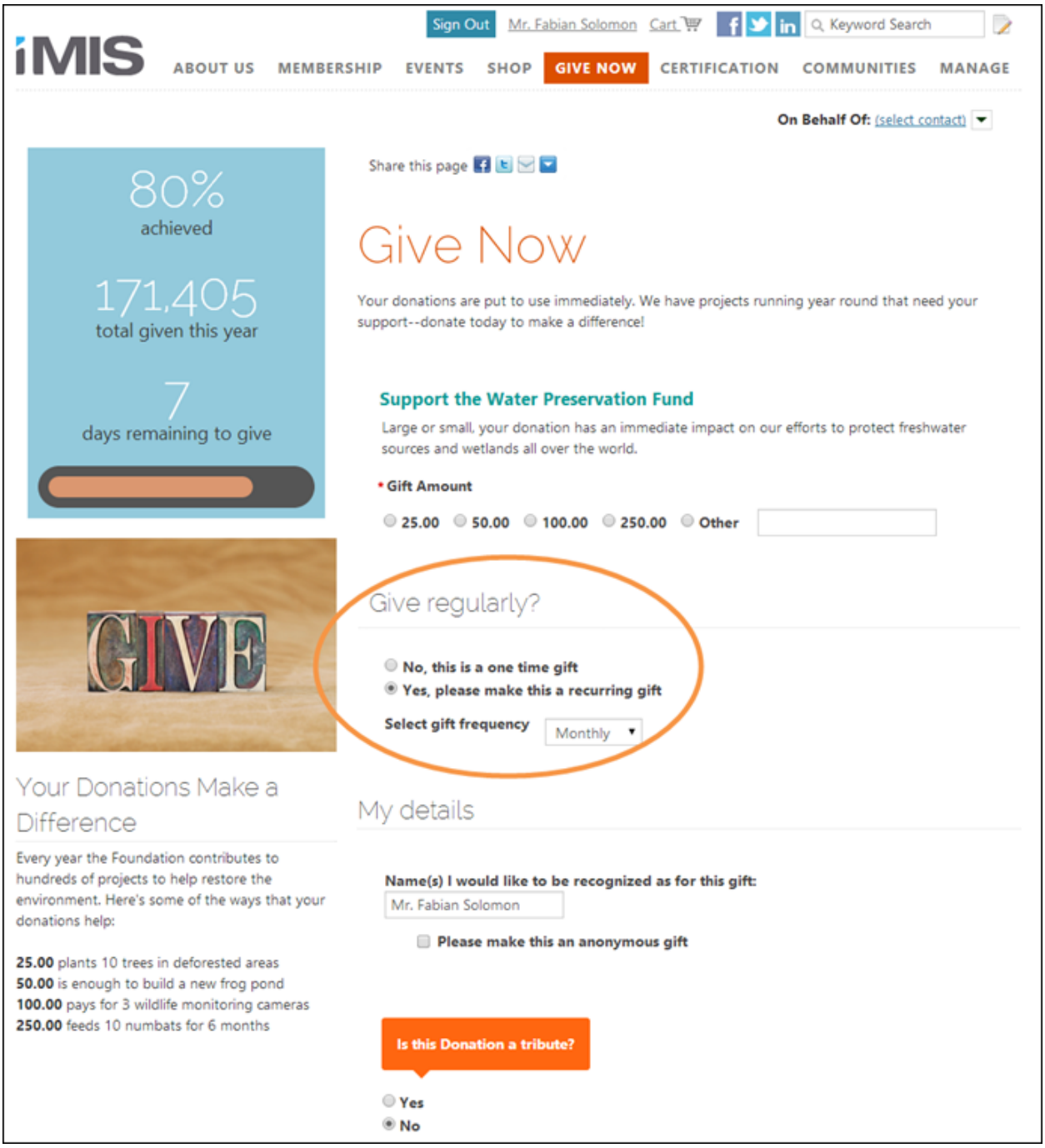
> **Note:** For AutoPay to work, you must add a gateway that is supported in the tokenization engine.

Creating a recurring donation page

When a donor wants to make an easy, one-click donation, the donor can use the **Give Now** page. **Recurring Donations** takes **Give Now** one step further and allows your donors to elect to automatically continue giving monthly, quarterly, or annually.

Donors can enroll in recurring donations when they donate. The **Give Now** page, when configured with **AutoPay**, allows your donors to select the frequency of their recurring donation.

Click to view image




Before your organization can accept recurring donations, you must configure your donor site.

In the Staff site, go to **RiSE > Page builder > Manage content**, and do one of the following:

- Make a copy of the Member site **Give Now** content record. Future updates to iMIS can overwrite this content record. Having a copy will allow you to keep and maintain this content record. See Copying or moving content records to another content folder for more information.
- Alternatively, you can edit an existing donation content record to contain the following content items and configurations:

> **Note:** This list of content items are required to use the Recurring Donations feature. You can have as many content items on your content record as you would like.

- **Donation Creator** (Offering)
- Check the **Display the distribution description** checkbox.
- Select the **Process donation immediately** radio button.
- Choose the **Select a distribution** radio button and select a fund from the drop-down.

> **Note:** Any information entered in the fund description section will be displayed.

- Enter a **Commit sequence** of **2**.

> **Note:** The lowest **Commit sequence** number will be processed first.

- (optional) Add an **Item added message**.
- Connect your **Donation Creator** and **Recurring Donation Creator** content items. Connections enable content items to interact with one another, significantly reducing the need for additional maintenance for site administrators. The Donation Creator content item needs to know if the donation will be repeating (determined by the Recurring Donation Creator) in order to provide an option for giving frequency.

1. Click **Connect** on the Recurring Donation Creator. A **Connect** window is displayed.
2. Click **Create a new connection**.
3. Select the Donation Creator in the **Object Consumer** drop-down.
4. Click **Connect**.
5. Click the red **X** to close the **Connect** window.

- **Recurring Donation Creator** (Offering)

- Enter a **Commit sequence** of **3**.
- 
> **Note:** This **Commit sequence** value must be less than the commit sequence of Payment Creator and the Submit Order Button Link.

- Add radio option text:
- **'No' radio option text** – No, this is a one time gift.
- **'Yes' radio option text** – Yes, please make this a recurring gift.
- Add **Gift frequency text**.
- **Contact Account Creator** (Contact)
- Select **Hide for authenticated users**.
- Enter a **Commit sequence** of **1**.
- **Payment Creator** (Commerce)
- Select **Donation** from the **Purpose** drop-down.
- Enter a **Commit sequence** of **5**.

> **Note:** The payment methods available to your donors are determined by your settings. See Creating and editing payment methods for more information.

- Connect your **Donation Creator** and **Payment Creator** content items.

1. Click **Connect** on the Payment Creator. A **Connect** window is displayed.
2. Click **Create a new connection**.
3. Select the Donation Creator in the **Object Consumer** drop-down.
4. Click **Connect**.
5. Click the red **X** to close the **Connect** window.

- **Submit Order Button Link** (Commerce)
- Select **the Prompt unauthenticated users to sign in** checkbox.
- Click **select** to select a URL or content record to redirect users to in the **URL for order confirmation** field.

> **Note:** The default content points to your pre-built donation thank you page. You can select any content record in the Document Browser.

- Select **Donation** from the **Purpose** drop-down.

- Enter a **Commit sequence** of **6**.

Processing recurring donations

Once a recurring donation content record has been added to one of your public-facing sites, you are able to call up the batch payments and invoices for those members who have chosen to set up repeating payments. The following steps will walk you through the process of creating a batch, reviewing batches, and processing invoices.

> **Note:** In order to use recurring donations you must have a license key. Contact ASI for more information.

Generate invoices for recurring donations

1. In the Staff site, go to **Fundraising > Recurring donations > Process payments**.
2. On the **Generate invoices** tab, enter a **Run Date** to create a recurring donation pledge batch. The run date is used to gather all of the invoices due up to and including the date on which you want to process your open pledge invoices.

> **Note:** Any payment requests sent to the tokenization engine will be processed immediately. The tokenization engine does not check due dates. This action is performed when you provide a date for **Due for collection on or before** during invoice batch submission. Do not submit any invoices that are not yet due for payment.

3. Click **Run**. A **Recurring Donation Pledge Batch** is created.
4. Post the batch:

a. In the Advanced Accounting Console, go to **Finance > Processes > Manage batches**.
b. Select your desired batch and click **Post Selected**.

Process recurring donation invoices

1. In the Staff site, go to **Fundraising > Recurring donations > Process payments**.
2. On the **Submit payments** tab, enter a **Due for collection on or before** date for all invoices due for collection. The due date refers to all unprocessed invoices due for renewal leading up to the due date you select.
3. Click **Find**. A list of all of the invoices matching your criteria will appear as a batch.
4. Click **Submit invoices for payment**. You will receive a notice that the batch has been submitted.

Update iMIS to incorporate payments that have been processed

1. In the Staff site, go to **Fundraising > Recurring donations > Process payments**.
2. On the **Retrieve processed payments** tab, review the detailed list of invoices.
3. Click **Retrieve processed payments**. You will see the results of your batch processing.

> **Note:** This will refresh the payment status of the submitted payments, and write the submitted payments back to iMIS.

4. The values in the **Result** column are marked **Completed** when payments are successful.

Review submitted renewal payments

1. In the Staff site, go to **Fundraising > Recurring donations > Review payment history**.
2. Search for completed automatic renewal payments using your desired parameters.
3. Review records for invoice number and other payment details.

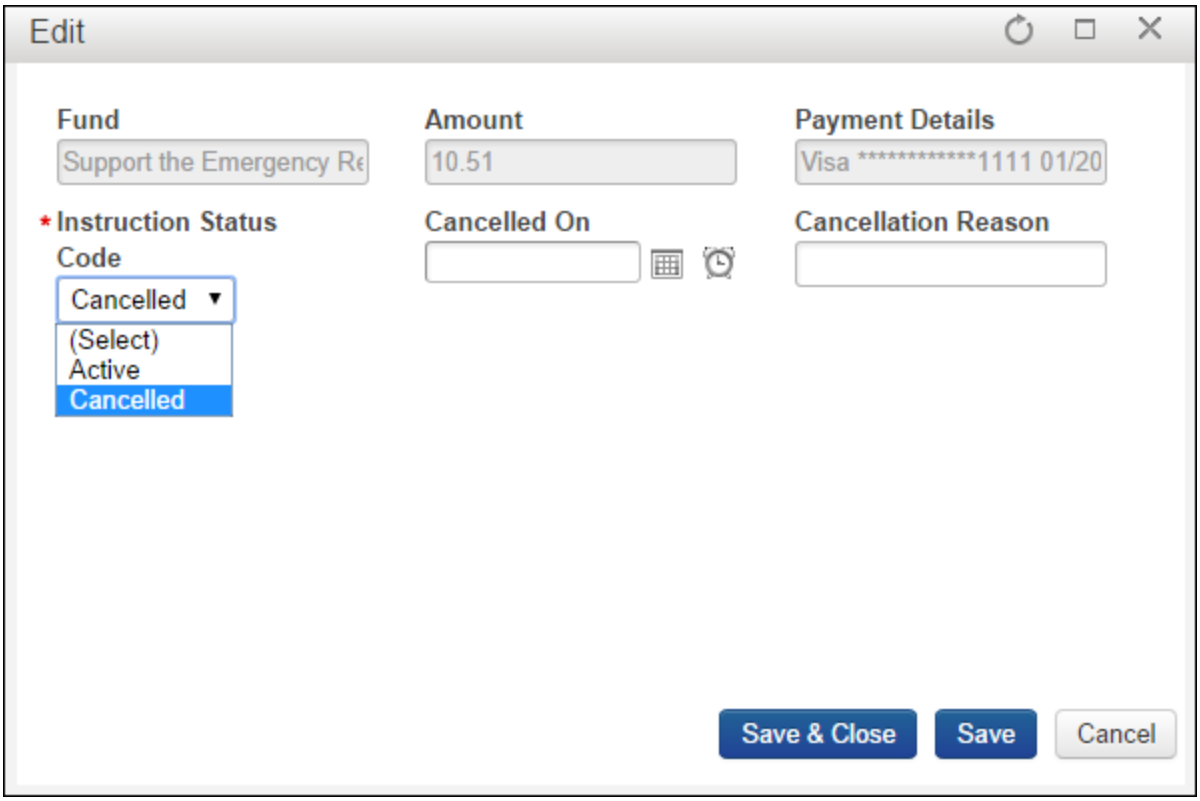
Modifying an existing recurring donation

Staff users can edit the automatic payment instructions for recurring donations. Staff users can cancel currently active recurring donations.

To cancel an automatic payment, do the following:

1. Go to **Commerce > Automatic payments > Payment instructions**.
2. Search for a recurring donation. You can search by **First name**, **Last name**, iMIS **ID**, or **Type**. You can also click **Find** to see all automatic payment instructions.
3. Click the name on the recurring donation you want to edit.
4. Click **edit**.

Click to view image




5. You can change the **Instruction Status Code**:
   - **(Select)**
   - **Active** – Activate a previously cancelled automatic payment.
   - **Cancelled** – Cancel an automatic payment.
6. Enter the date you cancelled the recurring donation, as well as a reason for the cancellation.
7. Click **Save & Close**.

## Backdating cash and check transactions

You may frequently receive transactions, such as product orders, membership joins, and event registrations, through the mail or over the phone. In these cases, the payment is often deposited before a staff member can enter the transaction into iMIS, but you need the transaction date in iMIS to match the true date of the transaction. To accomplish this task, staff users can easily backdate their own and **On Behalf Of** cash and check transactions.

> **Note:** You cannot backdate transactions that use gateway payment methods, such as credit cards and PayPal.

The entered transaction date is used as the order date, payment date, and the date of all journal entries. If a dues product is purchased, the entered transaction date overrides the system date as the membership join date.

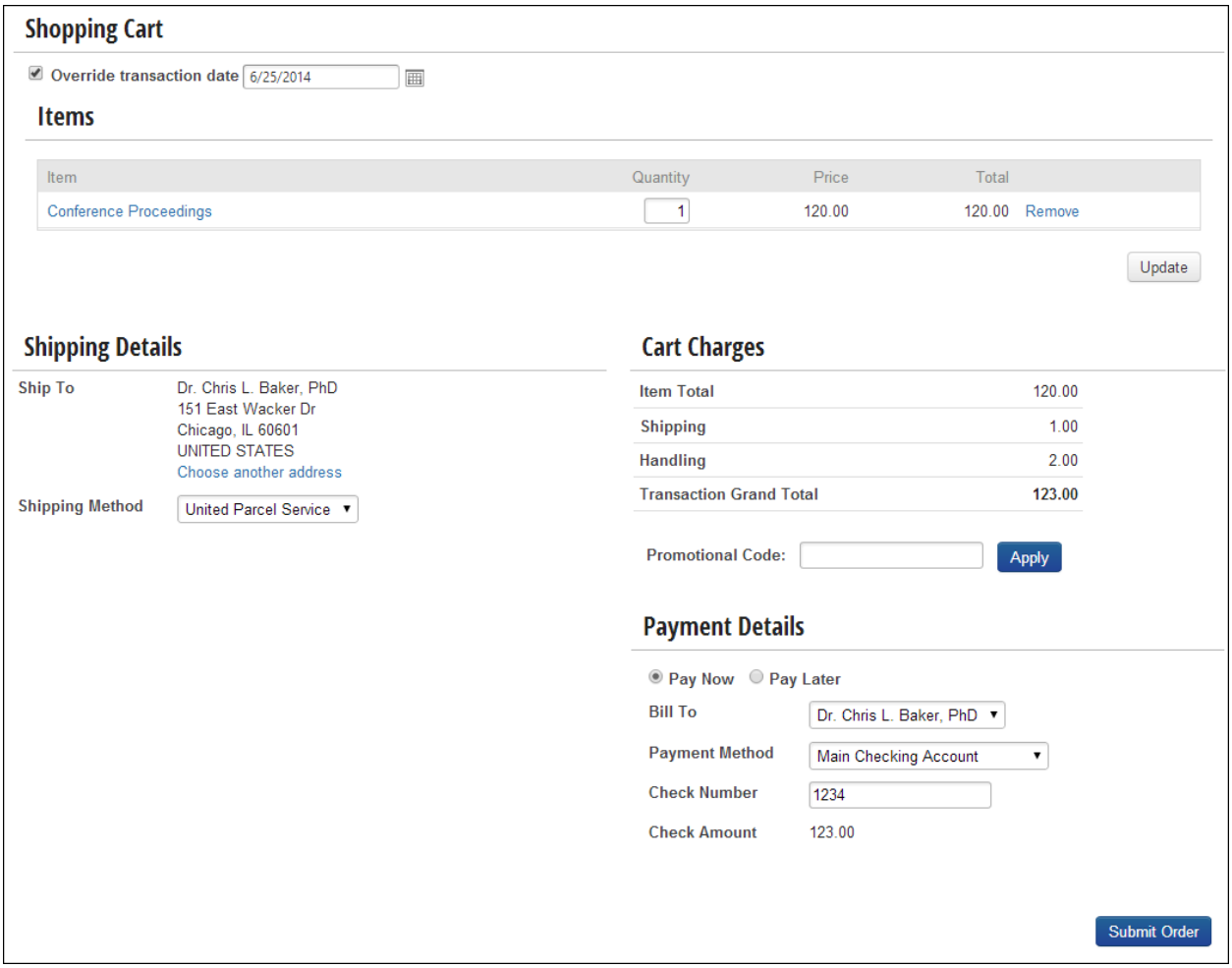
The transaction is added to an open batch for the entered transaction date. If all batches for that date are closed, a new open batch for the date is automatically created. For more information on batches, read the Managing automatic batches from the Staff site article.

To backdate cash and check transactions:

1. Go to the Staff site or the Member site.
2. Navigate to the cart.
3. Select **Override transaction date** and enter the correct transaction date.
4. Select to work **On Behalf Of** the contact making the transaction.
5. Add the item purchased by the contact to the cart.
6. Proceed to checkout (i.e., navigate to the cart).
7. Enter the appropriate payment details.

a. Choose to **Pay Now** or **Pay Later**.
b. Select a non-gateway payment method, such as a checking account. If you select a gateway payment method, such as a credit card, you will receive an error message.
c. If requested, enter the **Check Number**.

Click to view image




7. Submit the order.

> **Warning!**
>
> When you change the transaction date, the newly entered date persists to each transaction you enter that uses a non-gateway payment method in the same session.

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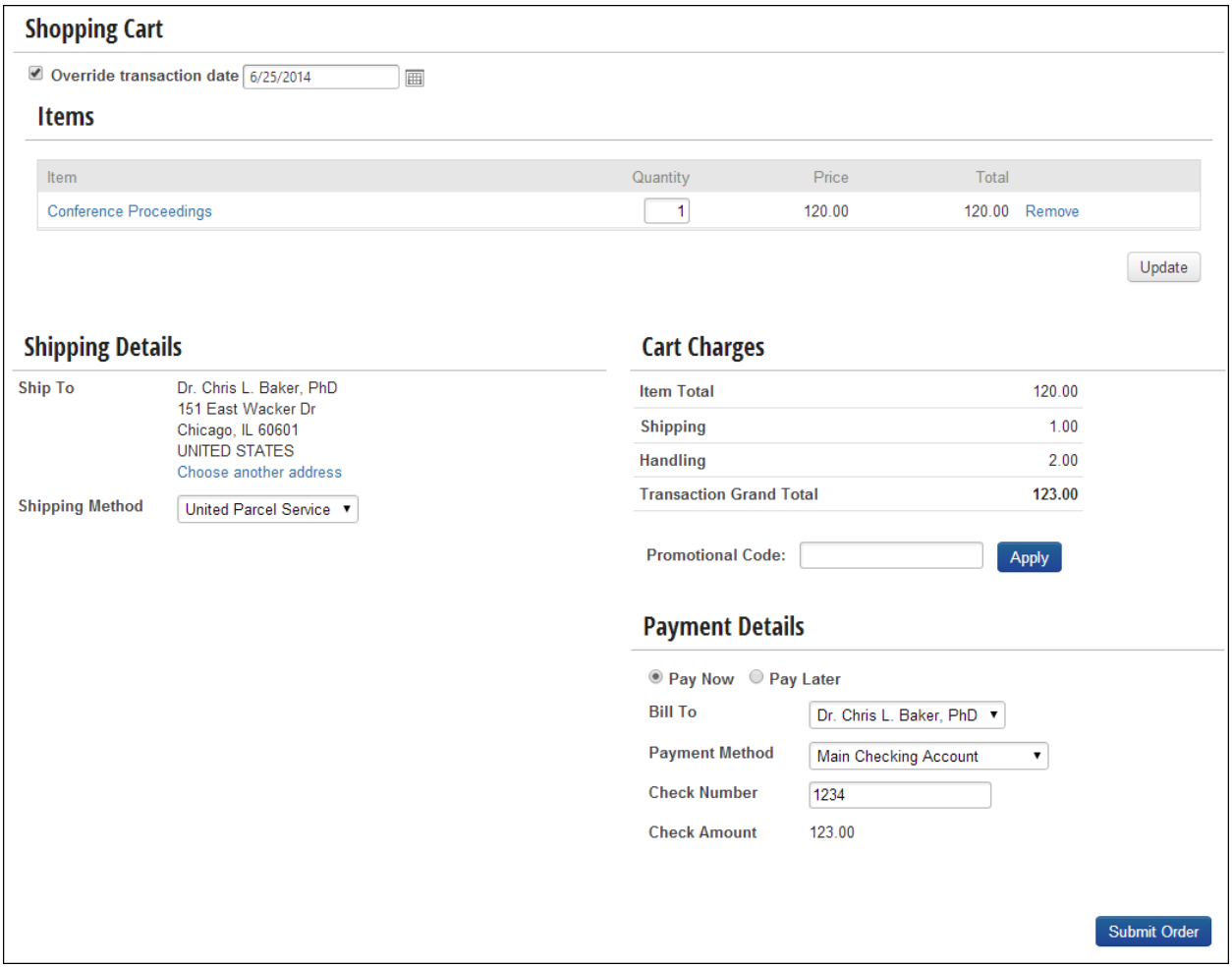
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Click to view image




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## Setting up Join Now

You can set up easy-to-use memberships for your prospective members. These options are known as Join Now, and use a combination of customer types, billing products and cycles, and public-facing content records. These Join Now memberships can be customized for different member types. for example:

- Student
- Retired
- Associate
- Regular Member

The following will walk you through the process of setting up a Join Now Student membership:

Create dues item and any additional billing products

These products will be combined to create all of the membership and subscription options for your new Join Now membership. Typical products include dues, subscriptions to industry or organization publications, and giving opportunities. Unless otherwise noted as (required), billing products in the following documentation are optional, and are used to illustrate a robust Join Now membership. All optional billing product types can be used several times to create multiple options for memberships and subscriptions.

1. In the **Advanced Accounting Console** go to **Settings > Billing > Billing products**.
2. Create a new **Dues** product. Dues products should be used for all normal membership dues items. The **DUES** code is used for standard, non-optional dues line items that are cross-referenced on the **Set up customer types** window. For more information, see Create a customer type.

   Click for details

a. Select **New**, and choose a **Product Type** of **DUES**.
b. Enter a **Code**. Choose a code that is unique and descriptive of your dues product. For example, for our Student membership, enter the code **STU**.

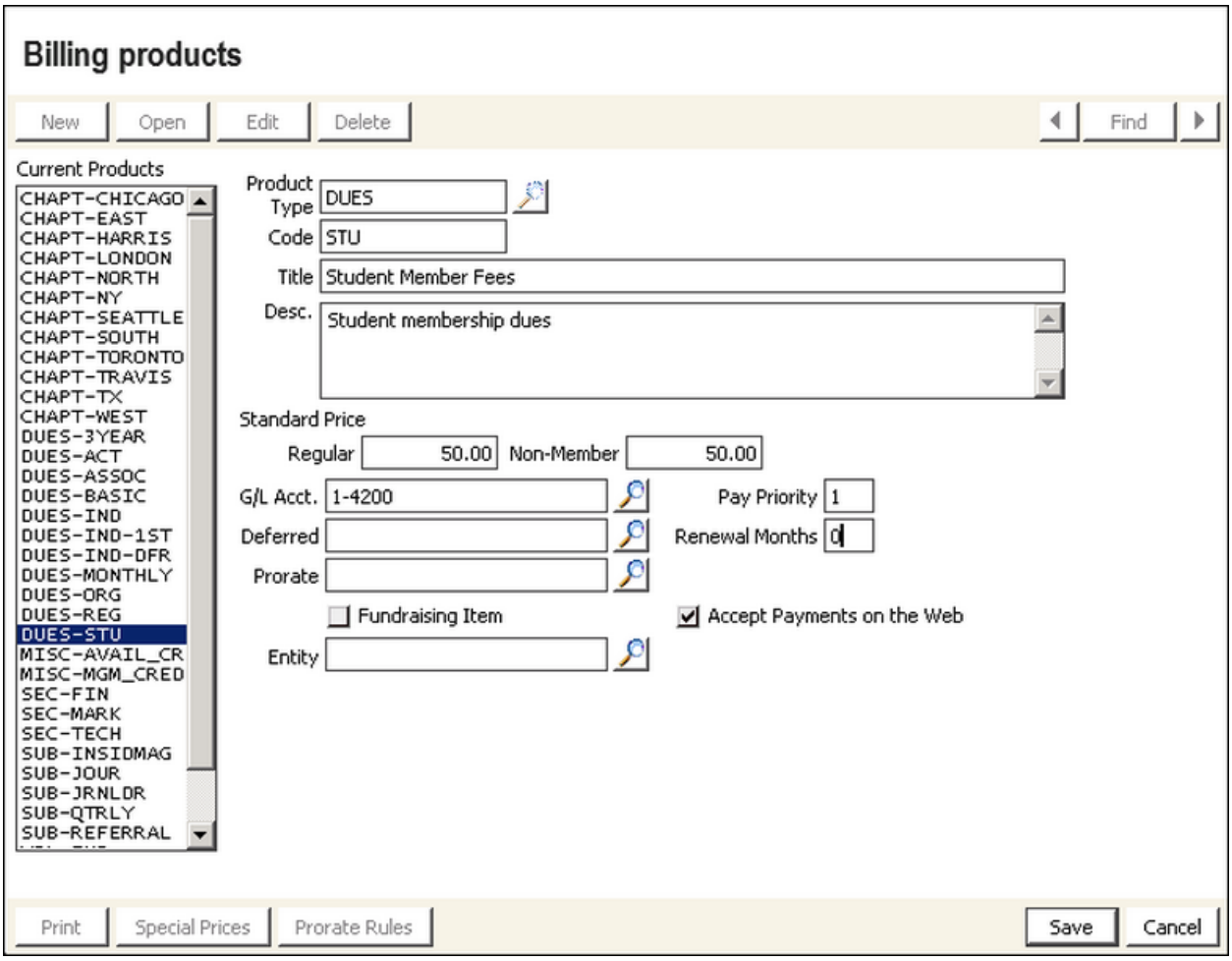
> **Note:** The code entered should not contain any spaces or special characters other than an underscore ( _ ), and should contain no more than 15 alphanumeric characters.

c. Provide a **Title** and **Description**, as desired.
d. Enter a **Standard Price** for Regular and Non-Member pricing.

> **Note:** This price must be written in standard currency format.

e. Select a **G/L account** for the income generated from the dues item.

f. Enter a **Pay Priority** of **1**. This priority determines the order in which the billing products are displayed and paid for. The higher the priority number, the lower the priority. A product with a Pay Priority of **1** will always come first.
Click to view image




g. Click **Save**.

3. (optional) Create a **Chapter** product to designate separate dues or memberships for chapters or local groups. You must assign a dollar amount to the chapter product to enable chapter billing.
Click for details

a. Select **New**, and choose a **Product Type** of **CHAPT**.
b. Enter a **Code**. Choose a code that is unique and descriptive of your chapter product. When **CHAPT** is selected as the **Product Type**, then **CHAPT** is automatically populated in the **Code** field.

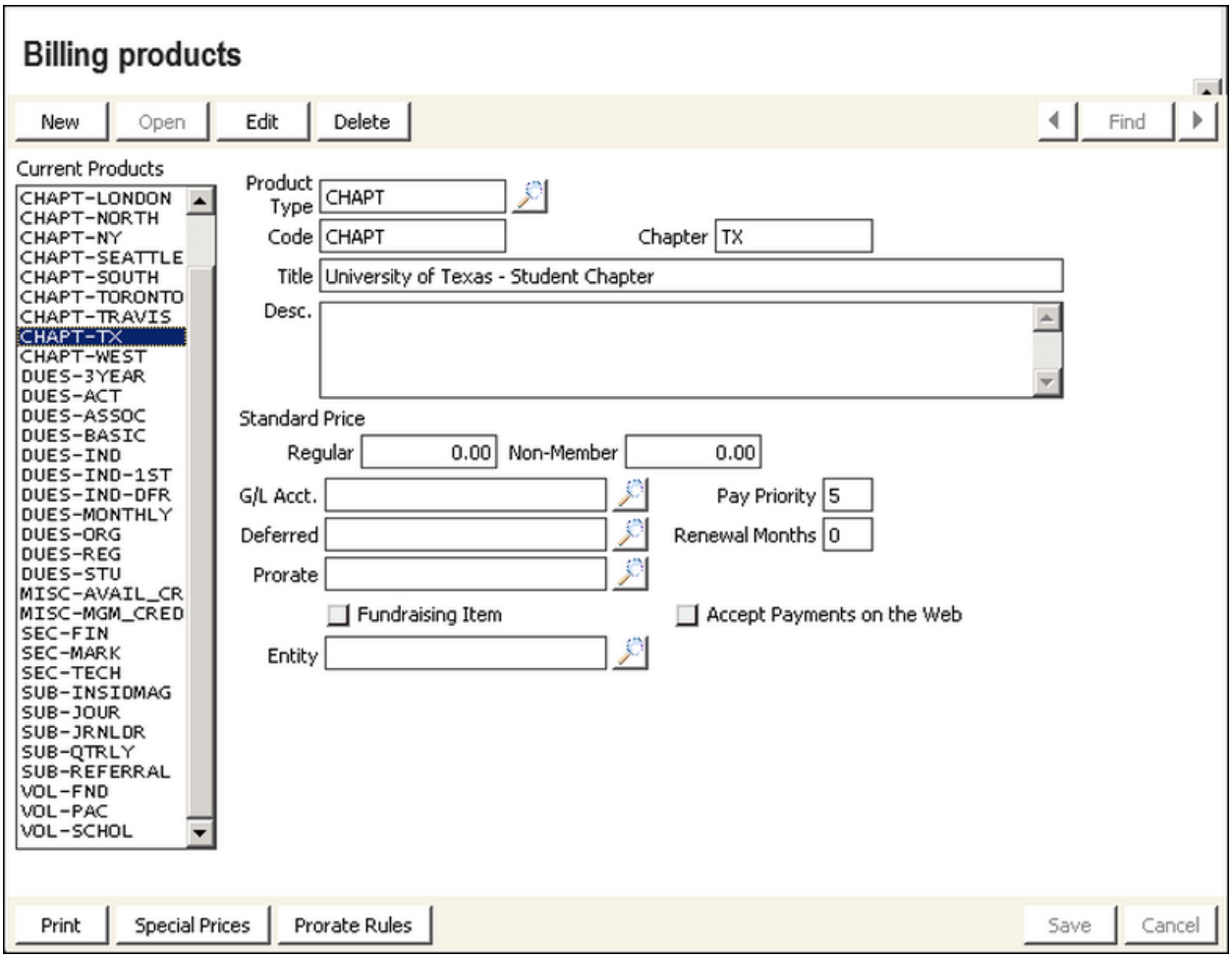
c. Enter a **Chapter** to create a unique chapter name. For example, for our Student membership, enter a chapter of **TX** to name a university.

> **Note:** The code entered should be unique, not contain any spaces or special characters other than an underscore ( _ ), and should contain no more than 15 alphanumeric characters.

d. Provide a **Title** and **Description**, as desired.
e. Enter a **Standard Price** for Regular and Non-Member pricing.

> **Note:** This price must be written in standard currency format.

f. Select a **G/L account** for the income generated from the chapter item.
g. Enter a **Pay Priority** of **5**. This priority determines the order in which the billing products are displayed and paid for. The higher the priority number, the lower the priority. A product with a Pay Priority of **1** will always come first.
Click to view image




4. (optional) Create a **Section** product to provide opportunities to join specialty groups and sections. Section products represent groups that are joined only by request.
   Click for details
   a. Select **New**, and choose a **Product Type** of **SEC**.
   b. Use this code for optional add-on section memberships such as professional specialty groups.
   c. Enter a **Code**. Choose a code that is unique and descriptive of your section product.
   d. For our Student membership, enter a Code of **MENT** to designate the mentorship section.

> **Note:** The code entered should be unique, not contain any spaces or special characters other than an underscore ( _ ), and should contain no more than 15 alphanumeric characters.

e. Provide a **Title** and **Description**, as desired.

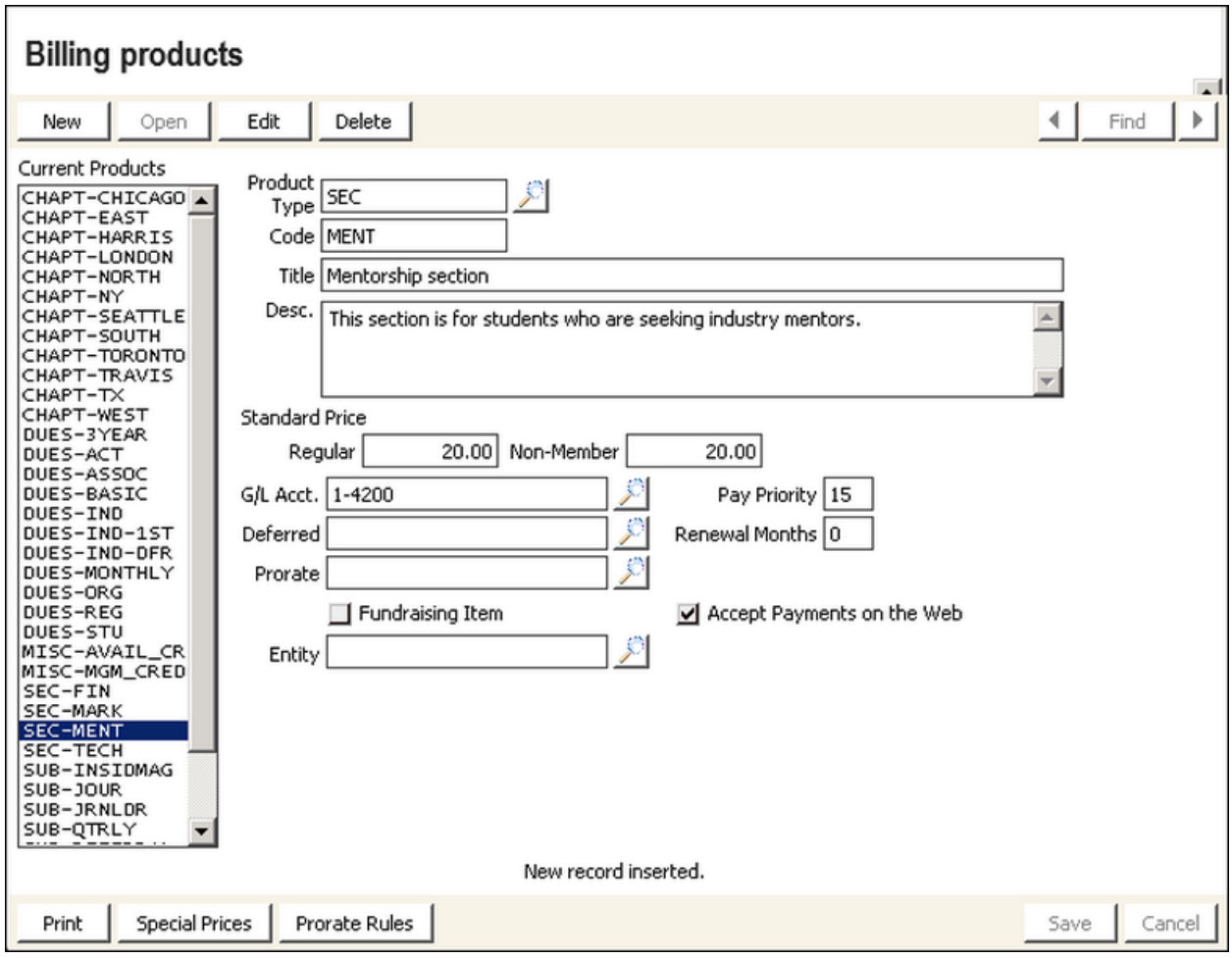
f. Enter a **Standard Price** for Regular and Non-Member pricing.

> **Note:** This price must be written in standard currency format.

g. Select a **G/L account** for the income generated from the section item.

h. Enter a **Pay Priority** of **15**. This priority determines the order in which the billing products are displayed and paid for. The higher the priority number, the lower the priority. A product with a Pay Priority of **1** will always come first.

Click to view image




5. (optional) Create a **Subscription** product to include Magazine or journal subscriptions.

Click for details

a. Select **New**, and choose a **Product Type** of **SUB**.

b. Enter a **Code**. Choose a code that is unique and descriptive of your subscription product.

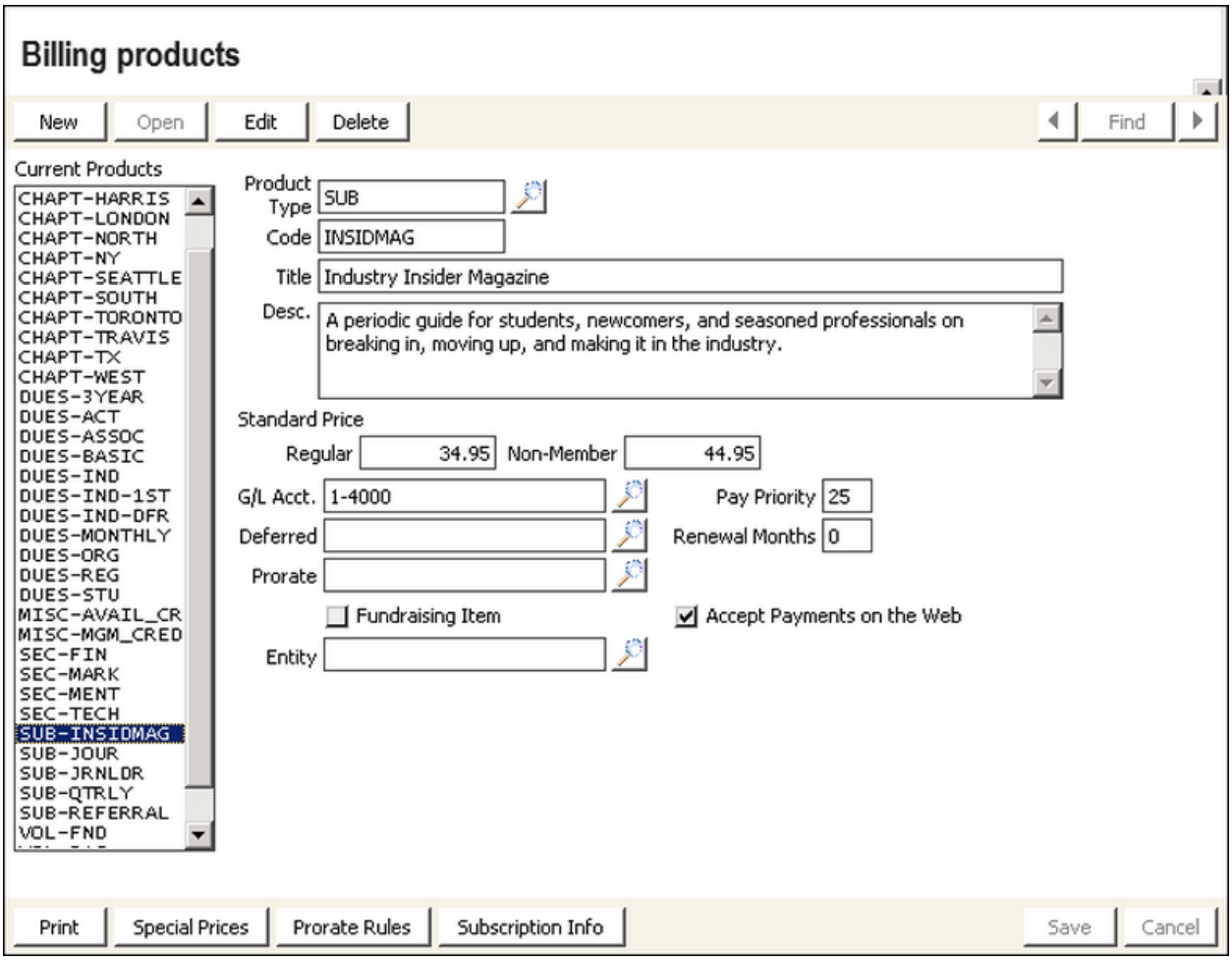
c. Use this code for optional subscriptions such as journals and magazines. For our Student membership, enter a **Code** of **INSIDMAG** to designate the Industry Insider Magazine subscription.

> **Note:** The code entered should be unique, not contain any spaces or special characters other than an underscore ( _ ), and should contain no more than 15 alphanumeric characters.

d. Provide a **Title** and **Description**, as desired.
e. Enter a **Standard Price** for Regular and Non-Member pricing.

> **Note:** This price must be written in standard currency format.

f. Select a **G/L account** for the income generated from the subscription item.
g. Enter a **Pay Priority** of **25**. This priority determines the order in which the billing products are displayed and paid for. The higher the priority number, the lower the priority. A product with a Pay Priority of **1** will always come first.
Click to view image




6. (optional) Create a **Voluntary Contribution** product for suggested donations or contributions, such as gifts to PACs or foundations.
   Click for details

a. Select **New**, and choose a **Product Type** of **VOL**.
b. Enter a **Code**. Choose a code that is unique and descriptive of your voluntary contribution product.
c. Use this code for optional subscriptions such as journals and magazines. For our Student membership, enter a **Code** of **SCHOL** to designate a scholarship fund.

> **Note:** The code entered should be unique, not contain any spaces or special characters other than an underscore ( _ ), and should contain no more than 15 alphanumeric characters.

d. Provide a **Title** and **Description**, as desired.

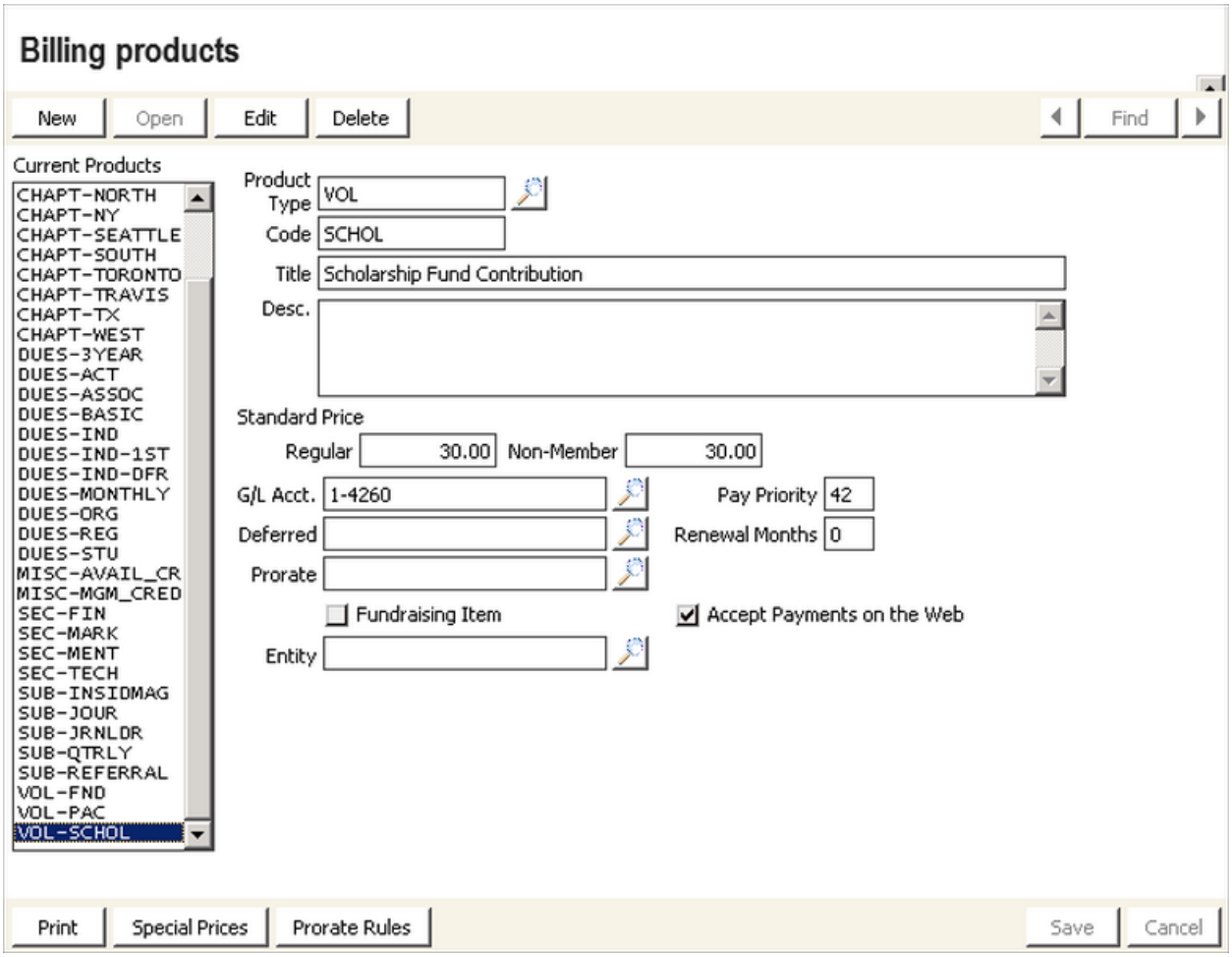
e. Enter a **Standard Price** for Regular and Non-Member pricing.

> **Note:** This price must be written in standard currency format.

f. Select a **G/L account** for the income generated from the voluntary contribution item.

g. Enter a **Pay Priority** of **42**. This priority determines the order in which the billing products are displayed and paid for. The higher the priority number, the lower the priority. A product with a Pay Priority of **1** will always come first.

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7. Go to **Settings > Membership > Activity types** to ensure the **Activity types** for the following billing products are defined:

- CHAPT
- DUES
- MISC

- SEC
- SUB
- VOL

8. (optional) Create a new **Activity type** if not already defined.

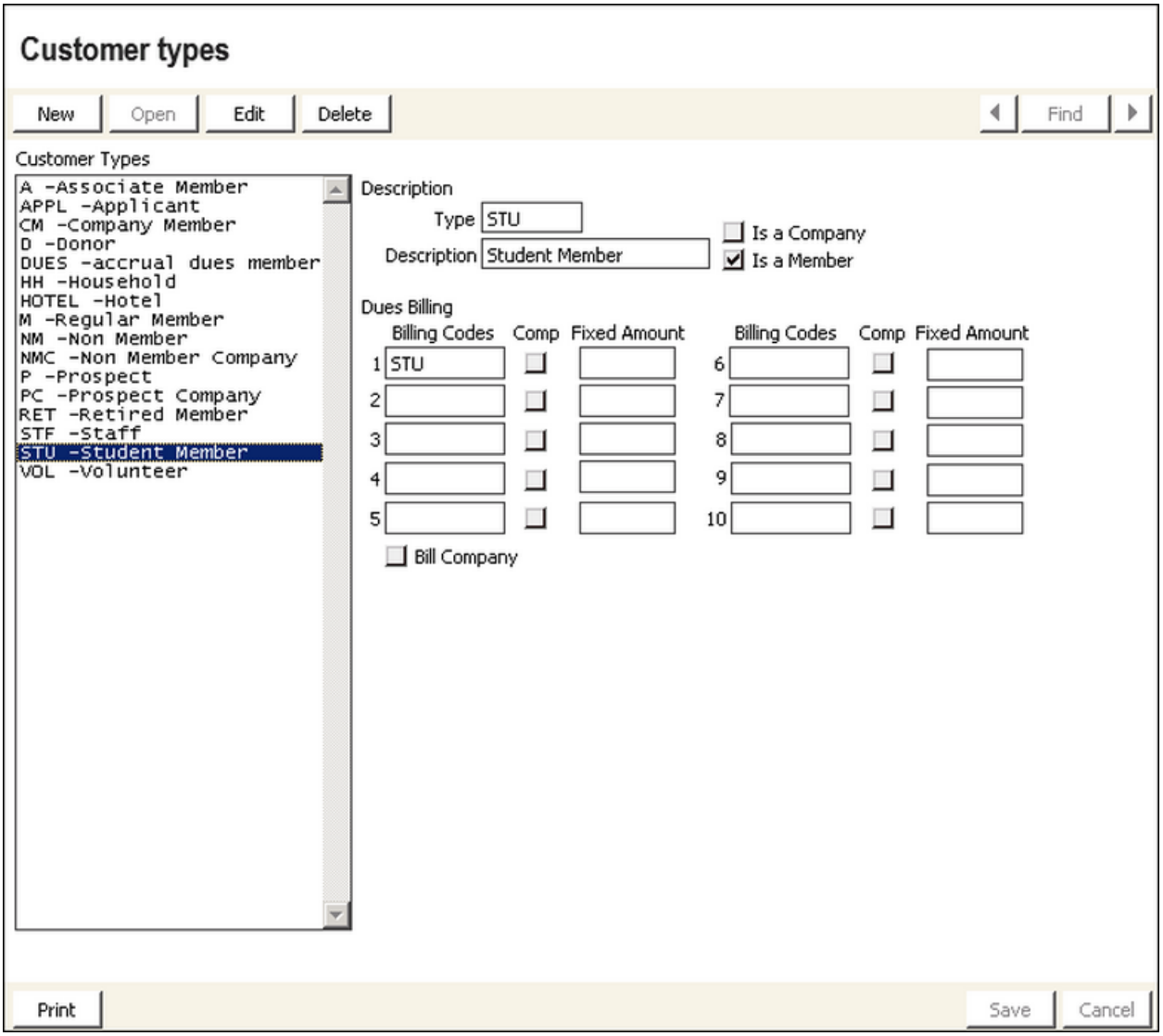
> **Note:** If you do not define activity types for your billing products, they might not display correctly on your **Join Now** pages. The **Description** for an activity type is displayed in the product area on your **Join Now** page.

Create a customer type

Customer types define the categories to which you assign each customer record. These types designate the broad classification of customer categories. Assign a different type to each major customer class (Individual Member, Associate Member, Student Member, Hotel, and so forth) and at least one type to the Non-Member category. These membership categories define the membership levels and amount charged for membership or dues and subscriptions.

1. In the **Advanced Accounting Console**, go to **Settings > Membership > Customer Types**, and click **New**.
2. Enter a **Type** that is unique and meaningful. For our Student Join Now example, enter a type of **STU**, to correspond with the student billing product we created previously.
3. In the **Description** field, enter the descriptive, full name of the customer group that corresponds to the code you assigned in the **Type** field.
4. Select the **Is a Member** checkbox to indicate an individual member customer type.
5. Enter a **Dues Billing Code** that corresponds to the dues item created previously. These entries dictate the dues products that will be automatically billed for each customer type. Do not enter add-on products that are optional or that vary from customer to customer. For our example, enter **STU**.
6. Click **Save**.

Click to view image




Create a dues billing cycle

The billing cycle is used to define the product the General Product Display content item displays on the web. The billing cycle determines which items are included in the Join Now product, as well as the Member Type to which the person will be set when they submit the cart to purchase the Join Now item:

1. In the **Advanced Accounting Console**, go to **Settings > Billing > Billing Cycles**, and click **New**.

2. Enter a descriptive **Cycle Name**. The **Cycle Name** will appear as the title of the product in the content. We will enter **Member Student** since we are creating a student Join Now membership.

   > **Note:** The billing cycle name should not have underscores in it, only spaces.

3. From the **Forms** drop-down, select **Dues Renewal Notice**.
4. Select the **Member Type** to bill. Be sure to select only one Member Type. For our Student Member example, select the **STU** Member Type.
5. Choose which **categories** to include. Select ***ALL***.
6. Select the **Add Member Type Items** checkbox to designate the billing cycle as a Dues billing.
7. Select any products to include in addition to the Member Type items.

   > **Note:** To select multiple billing products from the list, use **[CTRL]+click** for each selection.

8. Enable the **Use for web joins** and **Use to display itemized web renewals** checkboxes.
9. Select **Billing Types** from the drop-downs:

a. Annual/Anniv. - **Anniversary** or **Annual**

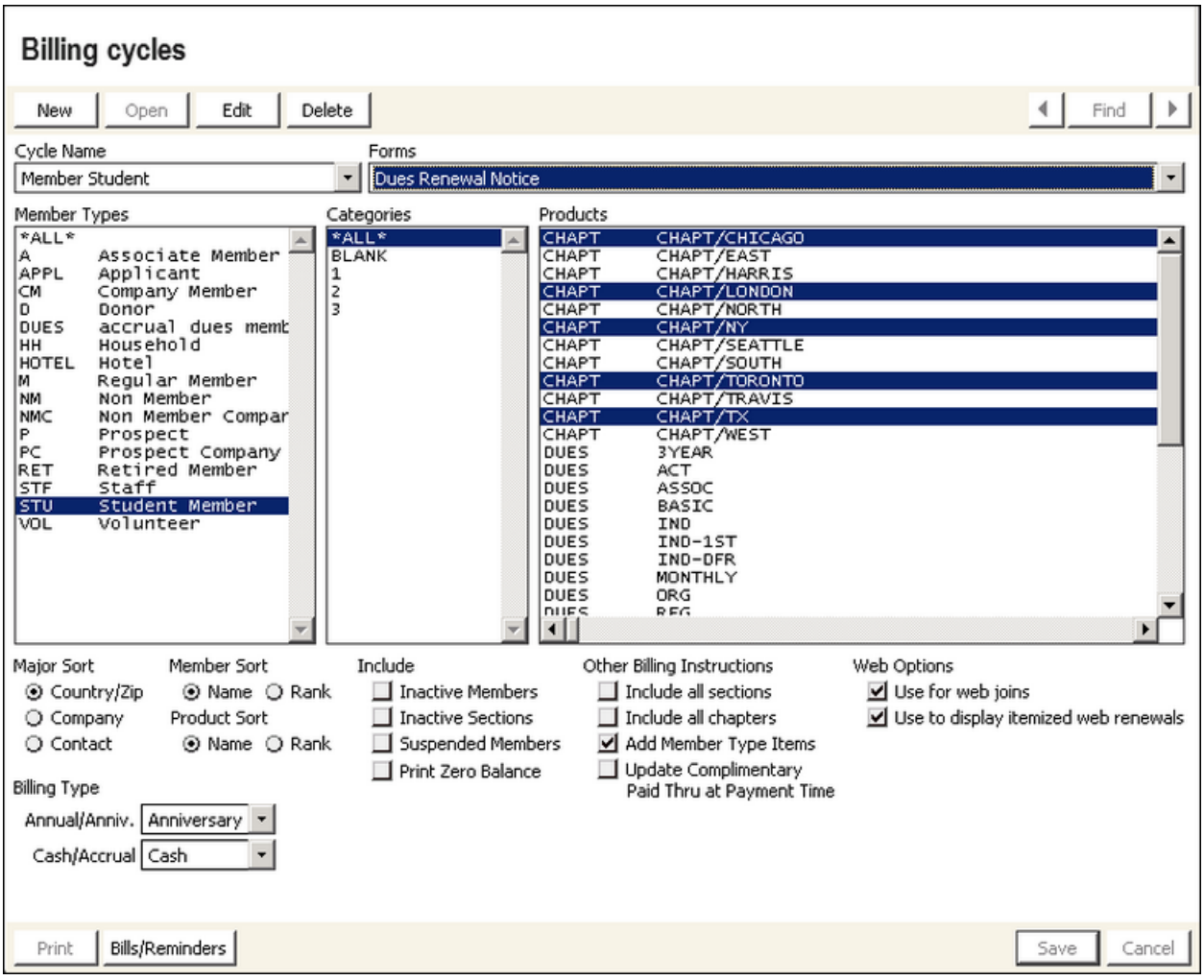
   > **Note:** To prorate the membership fee based on the date the member joins or to apply special user-defined prorating rules, you must bill on an annual basis. For more information, see Configuring billing options and Defining prorating rules.

b. Cash/Accrual - **Cash**

   > **Note:** Join Now functionality supports only **cash-based** accounting. Using Join Now with an accrual dues system will still work, but iMIS will treat the dues as cash. Future renewal billings will be treated as accrual dues.

10. Click **Save**.

    Click to view image




Create or copy an existing Join Now page

1. From the Staff site, locate a sample **Join Now** page and make a copy.
2. Open the content record and click **Edit**.
3. Configure the **General Product Display** content item.

a. In **Default product to display**, enter the name of the billing cycle (**Cycle Name**) created previously, replacing spaces with underscores. This is the product code for the billing cycle. For our Student Member example, enter **Member_Student**.

> **Note:** You can leave the **Default product to display** blank and use the same content record for multiple products. The product code (billing **Cycle Name**) should then be included as a URL parameter for iProductCode.

b. **Save** and **Publish**.

4. Add the content record containing the **General Product Display** content item with your Join Now product (STU) to an easy-to-find navigation.
5. Navigate to the Join Now page you have just created to ensure that the Join process reflects the chapters, subscriptions, and details that you need.

### Setting up Join Now

You can set up easy-to-use memberships for your prospective members. These options are known as Join Now, and use a combination of customer types, billing products and cycles, and public-facing content records. These Join Now memberships can be customized for different member types. for example:

- Student
- Retired
- Associate
- Regular Member

The following will walk you through the process of setting up a Join Now Student membership:

Create dues item and any additional billing products

These products will be combined to create all of the membership and subscription options for your new Join Now membership. Typical products include dues, subscriptions to industry or organization publications, and giving opportunities. Unless otherwise noted as (required), billing products in the following documentation are optional, and are used to illustrate a robust Join Now membership. All optional billing product types can be used several times to create multiple options for memberships and subscriptions.

1. In the **Advanced Accounting Console** go to **Settings > Billing > Billing products**.
2. Create a new **Dues** product. Dues products should be used for all normal membership dues items. The **DUES** code is used for standard, non-optional dues line items that are cross-referenced on the **Set up customer types** window. For more information, see Create a customer type.

   Click for details

a. Select **New**, and choose a **Product Type** of **DUES**.
b. Enter a **Code**. Choose a code that is unique and descriptive of your dues product. For example, for our Student membership, enter the code **STU**.

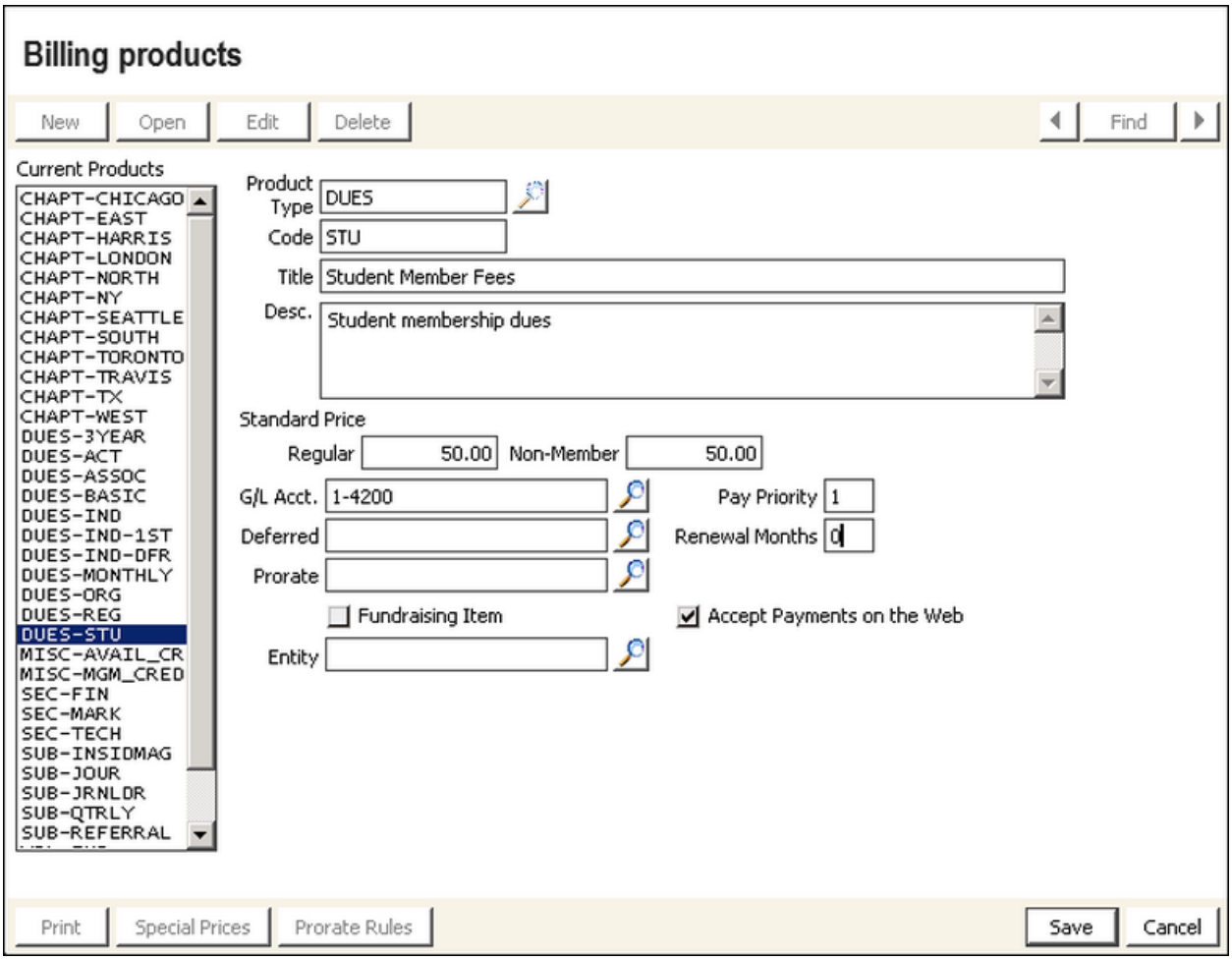
> **Note:** The code entered should not contain any spaces or special characters other than an underscore ( _ ), and should contain no more than 15 alphanumeric characters.

c. Provide a **Title** and **Description**, as desired.
d. Enter a **Standard Price** for Regular and Non-Member pricing.

> **Note:** This price must be written in standard currency format.

e. Select a **G/L account** for the income generated from the dues item.
f. Enter a **Pay Priority** of **1**. This priority determines the order in which the billing products are displayed and paid for. The higher the priority number, the lower the priority. A product with a Pay Priority of **1** will always come first.

Click to view image



g. Click **Save**.

3. (optional) Create a **Chapter** product to designate separate dues or memberships for chapters or local groups. You must assign a dollar amount to the chapter product to enable chapter billing.
   Click for details

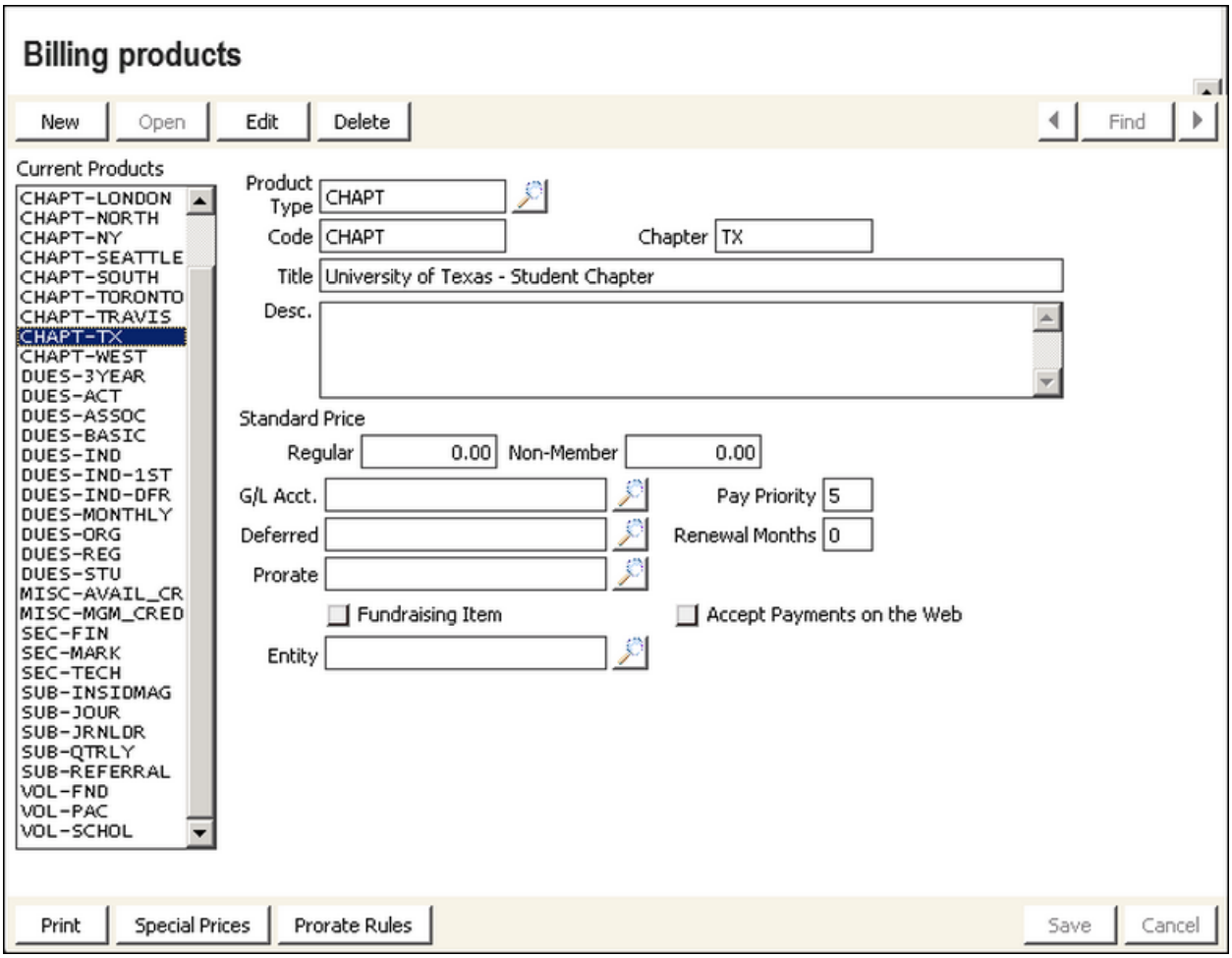
a. Select **New**, and choose a **Product Type** of **CHAPT**.
b. Enter a **Code**. Choose a code that is unique and descriptive of your chapter product. When **CHAPT** is selected as the **Product Type**, then **CHAPT** is automatically populated in the **Code** field.
c. Enter a **Chapter** to create a unique chapter name. For example, for our Student membership, enter a chapter of **TX** to name a university.

> **Note:** The code entered should be unique, not contain any spaces or special characters other than an underscore ( _ ), and should contain no more than 15 alphanumeric characters.

d. Provide a **Title** and **Description**, as desired.
e. Enter a **Standard Price** for Regular and Non-Member pricing.

> **Note:** This price must be written in standard currency format.

f. Select a **G/L account** for the income generated from the chapter item.
g. Enter a **Pay Priority** of **5**. This priority determines the order in which the billing products are displayed and paid for. The higher the priority number, the lower the priority. A product with a Pay Priority of **1** will always come first.
   Click to view image




4. (optional) Create a **Section** product to provide opportunities to join specialty groups and sections. Section products represent groups that are joined only by request.
   Click for details
   a. Select **New**, and choose a **Product Type** of **SEC**.
   b. Use this code for optional add-on section memberships such as professional specialty groups.
   c. Enter a **Code**. Choose a code that is unique and descriptive of your section product.
   d. For our Student membership, enter a Code of **MENT** to designate the mentorship section.

> **Note:** The code entered should be unique, not contain any spaces or special characters other than an underscore ( _ ), and should contain no more than 15 alphanumeric characters.

e. Provide a **Title** and **Description**, as desired.

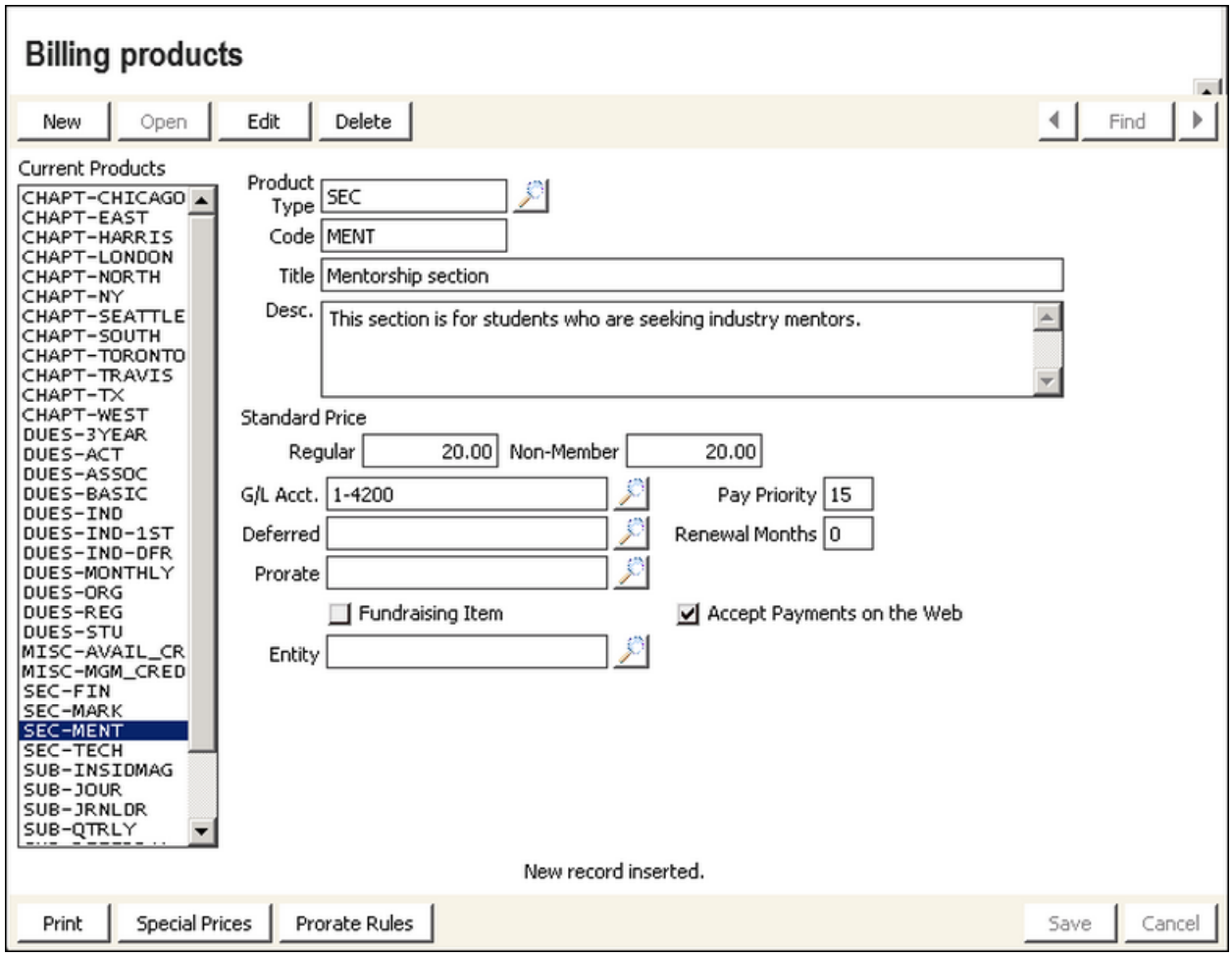
f. Enter a **Standard Price** for Regular and Non-Member pricing.

> **Note:** This price must be written in standard currency format.

g. Select a **G/L account** for the income generated from the section item.

h. Enter a **Pay Priority** of **15**. This priority determines the order in which the billing products are displayed and paid for. The higher the priority number, the lower the priority. A product with a Pay Priority of **1** will always come first.

Click to view image




5. (optional) Create a **Subscription** product to include Magazine or journal subscriptions.

Click for details

a. Select **New**, and choose a **Product Type** of **SUB**.

b. Enter a **Code**. Choose a code that is unique and descriptive of your subscription product.

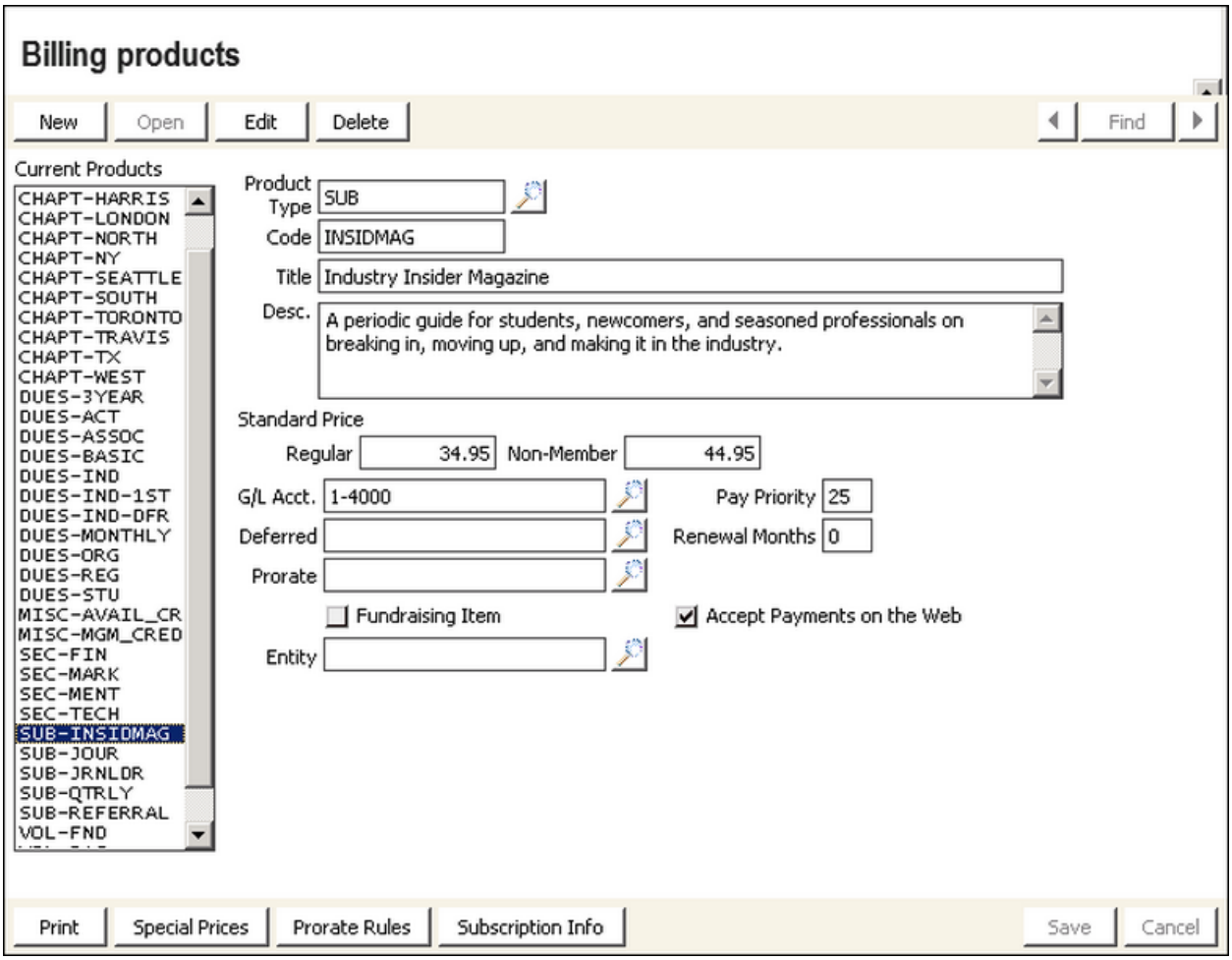
c. Use this code for optional subscriptions such as journals and magazines. For our Student membership, enter a **Code** of **INSIDMAG** to designate the Industry Insider Magazine subscription.

> **Note:** The code entered should be unique, not contain any spaces or special characters other than an underscore ( _ ), and should contain no more than 15 alphanumeric characters.

d. Provide a **Title** and **Description**, as desired.
e. Enter a **Standard Price** for Regular and Non-Member pricing.

> **Note:** This price must be written in standard currency format.

f. Select a **G/L account** for the income generated from the subscription item.
g. Enter a **Pay Priority** of **25**. This priority determines the order in which the billing products are displayed and paid for. The higher the priority number, the lower the priority. A product with a Pay Priority of **1** will always come first.
Click to view image




6. (optional) Create a **Voluntary Contribution** product for suggested donations or contributions, such as gifts to PACs or foundations.
   Click for details

a. Select **New**, and choose a **Product Type** of **VOL**.
b. Enter a **Code**. Choose a code that is unique and descriptive of your voluntary contribution product.
c. Use this code for optional subscriptions such as journals and magazines. For our Student membership, enter a **Code** of **SCHOL** to designate a scholarship fund.

> **Note:** The code entered should be unique, not contain any spaces or special characters other than an underscore ( _ ), and should contain no more than 15 alphanumeric characters.

d. Provide a **Title** and **Description**, as desired.

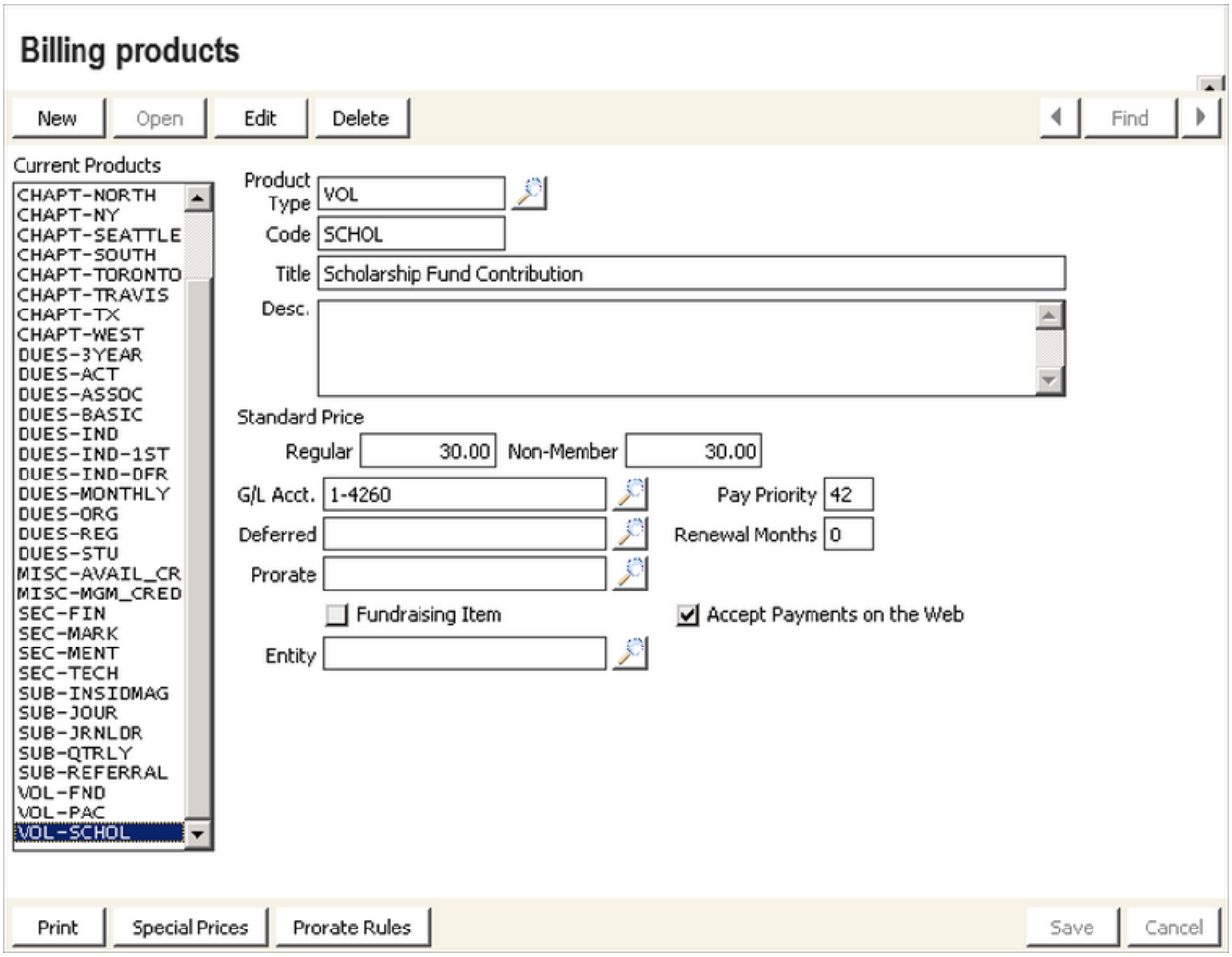
e. Enter a **Standard Price** for Regular and Non-Member pricing.

> **Note:** This price must be written in standard currency format.

f. Select a **G/L account** for the income generated from the voluntary contribution item.

g. Enter a **Pay Priority** of **42**. This priority determines the order in which the billing products are displayed and paid for. The higher the priority number, the lower the priority. A product with a Pay Priority of **1** will always come first.

Click to view image




7. Go to **Settings > Membership > Activity types** to ensure the **Activity types** for the following billing products are defined:

- CHAPT
- DUES
- MISC

- SEC
- SUB
- VOL

8. (optional) Create a new **Activity type** if not already defined.

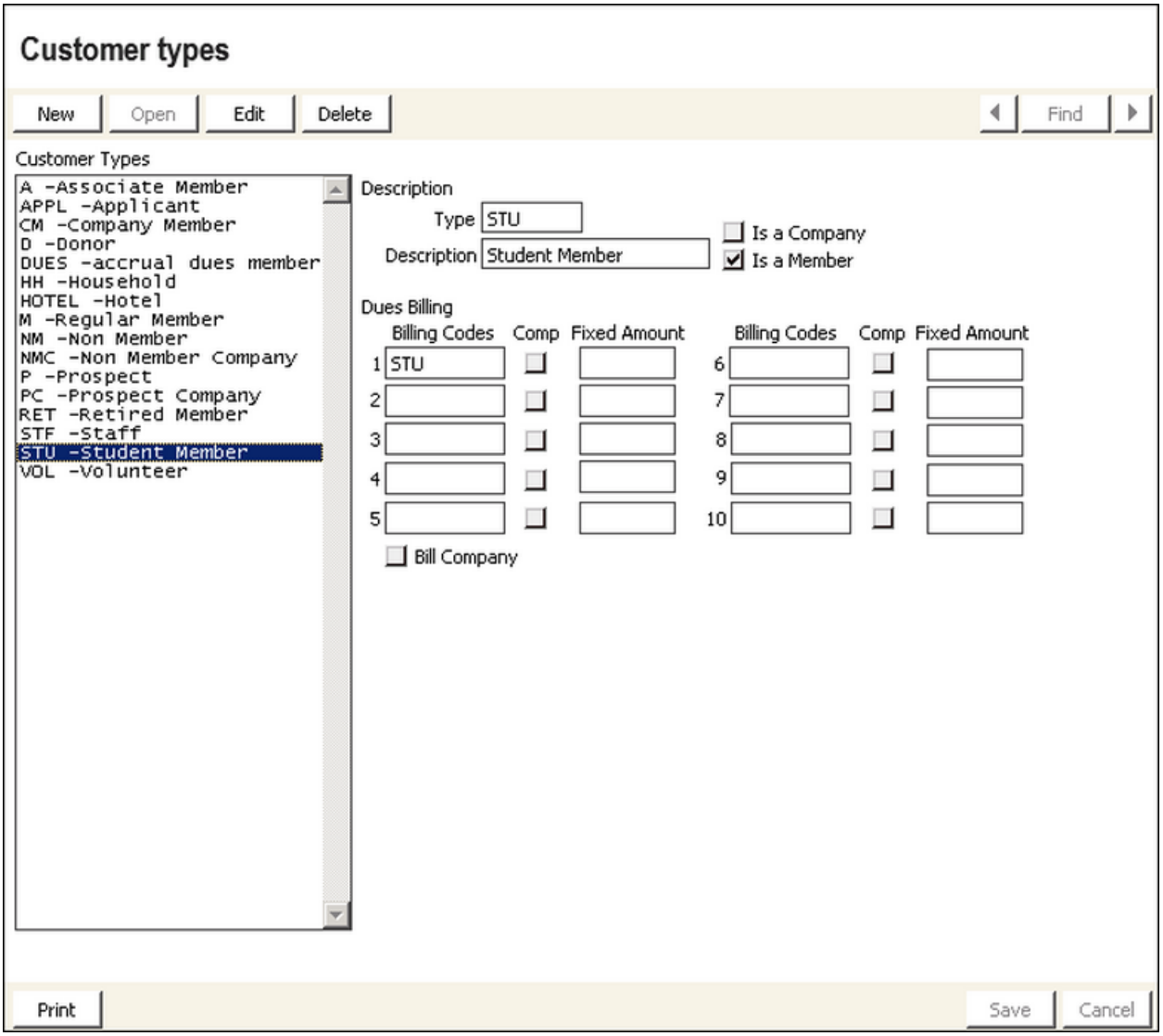
> **Note:** If you do not define activity types for your billing products, they might not display correctly on your **Join Now** pages. The **Description** for an activity type is displayed in the product area on your **Join Now** page.

Create a customer type

Customer types define the categories to which you assign each customer record. These types designate the broad classification of customer categories. Assign a different type to each major customer class (Individual Member, Associate Member, Student Member, Hotel, and so forth) and at least one type to the Non-Member category. These membership categories define the membership levels and amount charged for membership or dues and subscriptions.

1. In the **Advanced Accounting Console**, go to **Settings > Membership > Customer Types**, and click **New**.
2. Enter a **Type** that is unique and meaningful. For our Student Join Now example, enter a type of **STU**, to correspond with the student billing product we created previously.
3. In the **Description** field, enter the descriptive, full name of the customer group that corresponds to the code you assigned in the **Type** field.
4. Select the **Is a Member** checkbox to indicate an individual member customer type.
5. Enter a **Dues Billing Code** that corresponds to the dues item created previously. These entries dictate the dues products that will be automatically billed for each customer type. Do not enter add-on products that are optional or that vary from customer to customer. For our example, enter **STU**.
6. Click **Save**.

Click to view image




Create a dues billing cycle

The billing cycle is used to define the product the General Product Display content item displays on the web. The billing cycle determines which items are included in the Join Now product, as well as the Member Type to which the person will be set when they submit the cart to purchase the Join Now item:

1. In the **Advanced Accounting Console**, go to **Settings > Billing > Billing Cycles**, and click **New**.

2. Enter a descriptive **Cycle Name**. The **Cycle Name** will appear as the title of the product in the content. We will enter **Member Student** since we are creating a student Join Now membership.

   > **Note:** The billing cycle name should not have underscores in it, only spaces.

3. From the **Forms** drop-down, select **Dues Renewal Notice**.
4. Select the **Member Type** to bill. Be sure to select only one Member Type. For our Student Member example, select the **STU** Member Type.
5. Choose which **categories** to include. Select ***ALL***.
6. Select the **Add Member Type Items** checkbox to designate the billing cycle as a Dues billing.
7. Select any products to include in addition to the Member Type items.

   > **Note:** To select multiple billing products from the list, use **[CTRL]+click** for each selection.

8. Enable the **Use for web joins** and **Use to display itemized web renewals** checkboxes.
9. Select **Billing Types** from the drop-downs:

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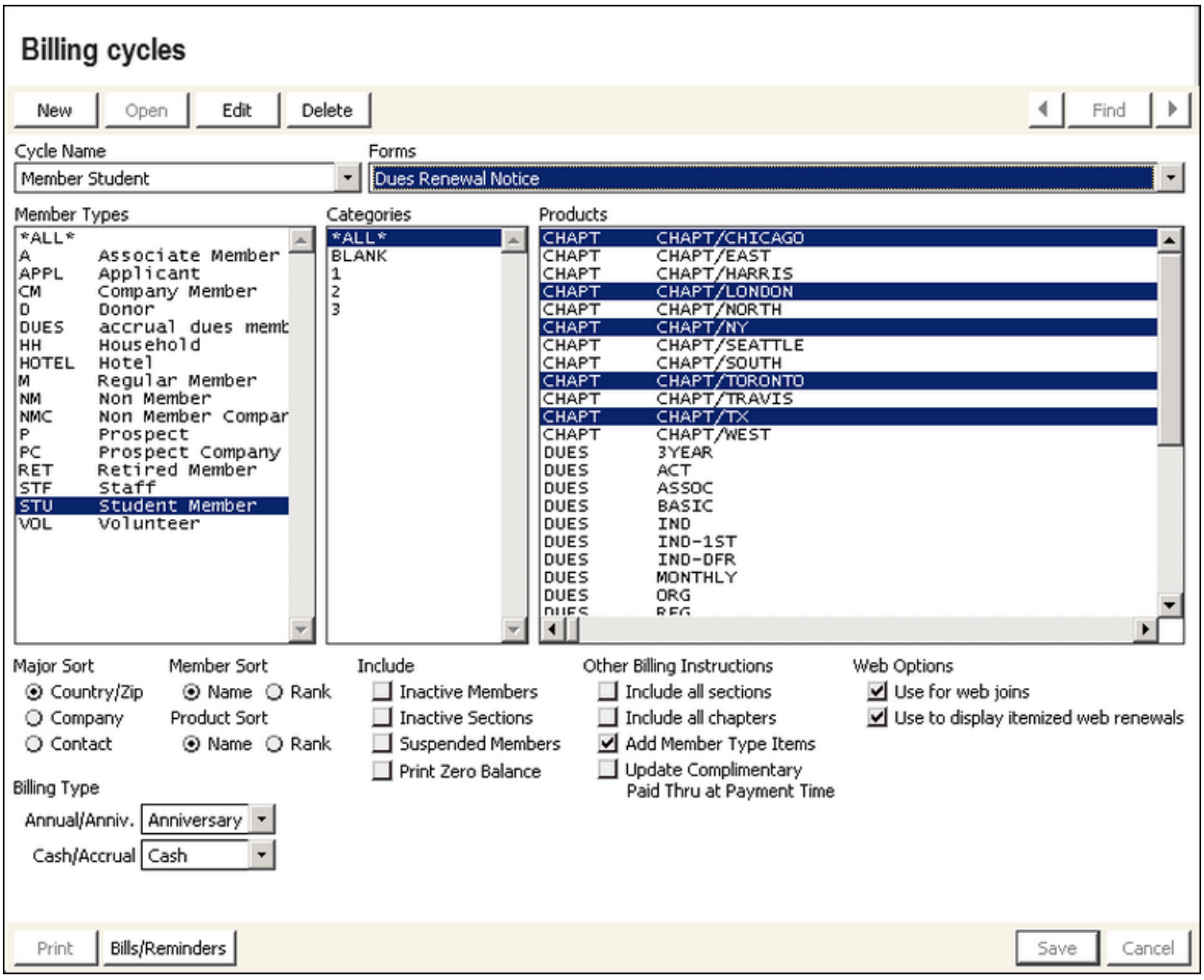
   > **Note:** To prorate the membership fee based on the date the member joins or to apply special user-defined prorating rules, you must bill on an annual basis. For more information, see Configuring billing options and Defining prorating rules.

b. Cash/Accrual - **Cash**

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10. Click **Save**.

    Click to view image




Create or copy an existing Join Now page

1. From the Staff site, locate a sample **Join Now** page and make a copy.
2. Open the content record and click **Edit**.
3. Configure the **General Product Display** content item.

a. In **Default product to display**, enter the name of the billing cycle (**Cycle Name**) created previously, replacing spaces with underscores. This is the product code for the billing cycle. For our Student Member example, enter **Member_Student**.

> **Note:** You can leave the **Default product to display** blank and use the same content record for multiple products. The product code (billing **Cycle Name**) should then be included as a URL parameter for iProductCode.

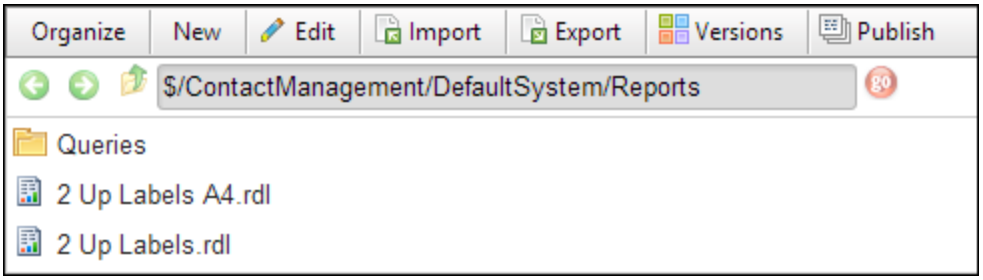
b. **Save** and **Publish**.

4. Add the content record containing the **General Product Display** content item with your Join Now product (STU) to an easy-to-find navigation.
5. Navigate to the Join Now page you have just created to ensure that the Join process reflects the chapters, subscriptions, and details that you need.

## Running contact reports

iMIS contains an immense amount of information about your members and other contacts. Contact reports allow you to display and print the contact information in iMIS in helpful, user-friendly layouts. These reports can be used to detail activity participation, personal information, and statistics. You can create labels, rosters, and certificates.

In many of the out-of-box reports, you can exert some control of the data contained in the report and how the data displays by specifying parameters, such as sort order and contact type. To further customize a report, you can edit the RDL file or query on which the report is based.



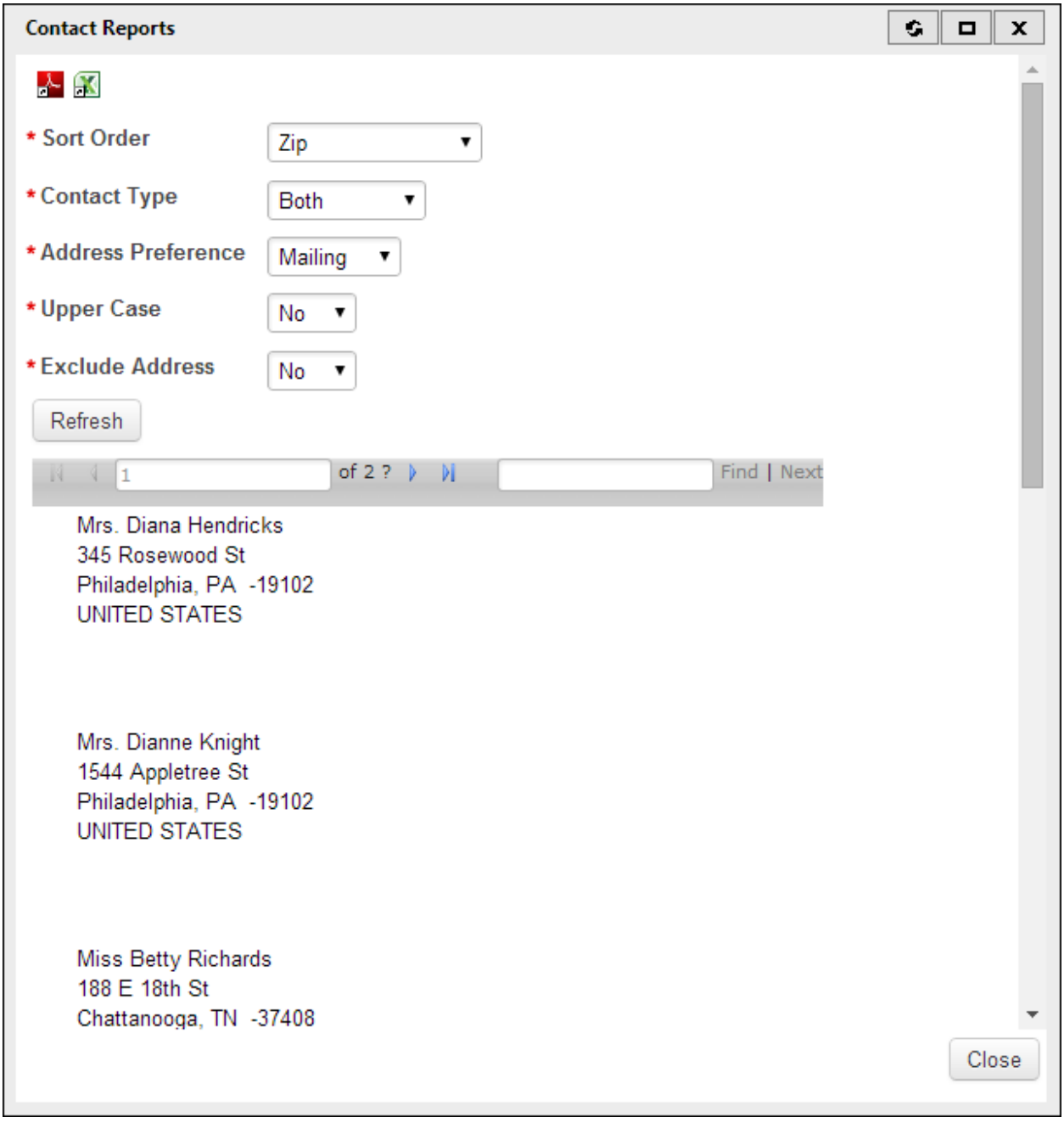

Running a contact report

1. Go to **Continuum > Contact reports**.
2. Select and run an existing report, for example, **2 Up Labels.rdl**.
3. Enter parameters as required.
4. Click **Refresh** (RDL file reports) or **Find** (query-based reports). A report is displayed.
5. Export the report to the appropriate format.

> **Note:** Contact label reports should be exported to PDF and only printed from Adobe Reader. Do not print the PDF directly from the browser window as the browser settings may not be compatible with the label layout. Do not export these reports to Excel as the exported layout does not print correctly on Avery stock.

**Note:** When printing in Adobe Reader to a stock label format, print to the actual size of the paper to maintain the correct page size. The default shrinks the size and will not align properly for the labels.

Click to view image




Editing contact reports

Reports located at **Continuum > Contact reports** are based on RDL files. Do the following to edit these reports:

1. Select and download an existing report.
2. Edit the report in SQL Server Business Intelligence Development Studio (BIDS) and save the report file.
3. In the iMIS Document System, select and edit the report.
4. To upload the new version of the report file, select and navigate to the edited report file.
5. Save the report.

Reports located at **Continuum > Contact reports > Queries** are based on IQA queries. If you want to edit a query, do the following:

1. Select edit an existing query.
2. Change the values on the **Summary**, **Sources**, **Filters**, **Display** and **Sorting** tabs as necessary.

You can also create a new query. Go to Creating or editing a query (Basic mode) for more information.

---

Printing contact labels on letter-size paper

The **2 Up Labels.rdl** report allows you to print mailing labels for individual or company contacts on letter-size paper (8.5 x 11 inches), specifically Avery 5162 or 5262 stock. The report prints 14 labels in 2 columns.

You have several options for tailoring the report to your specific needs. You can:

- select the labels' sort order
- limit to individual or company contacts or include both contact types
- specify address preferences (billing, mailing, or shipping)
- display the label text in upper-case if needed
- exclude the address if needed

Run this report from **Continuum > Contact reports**.

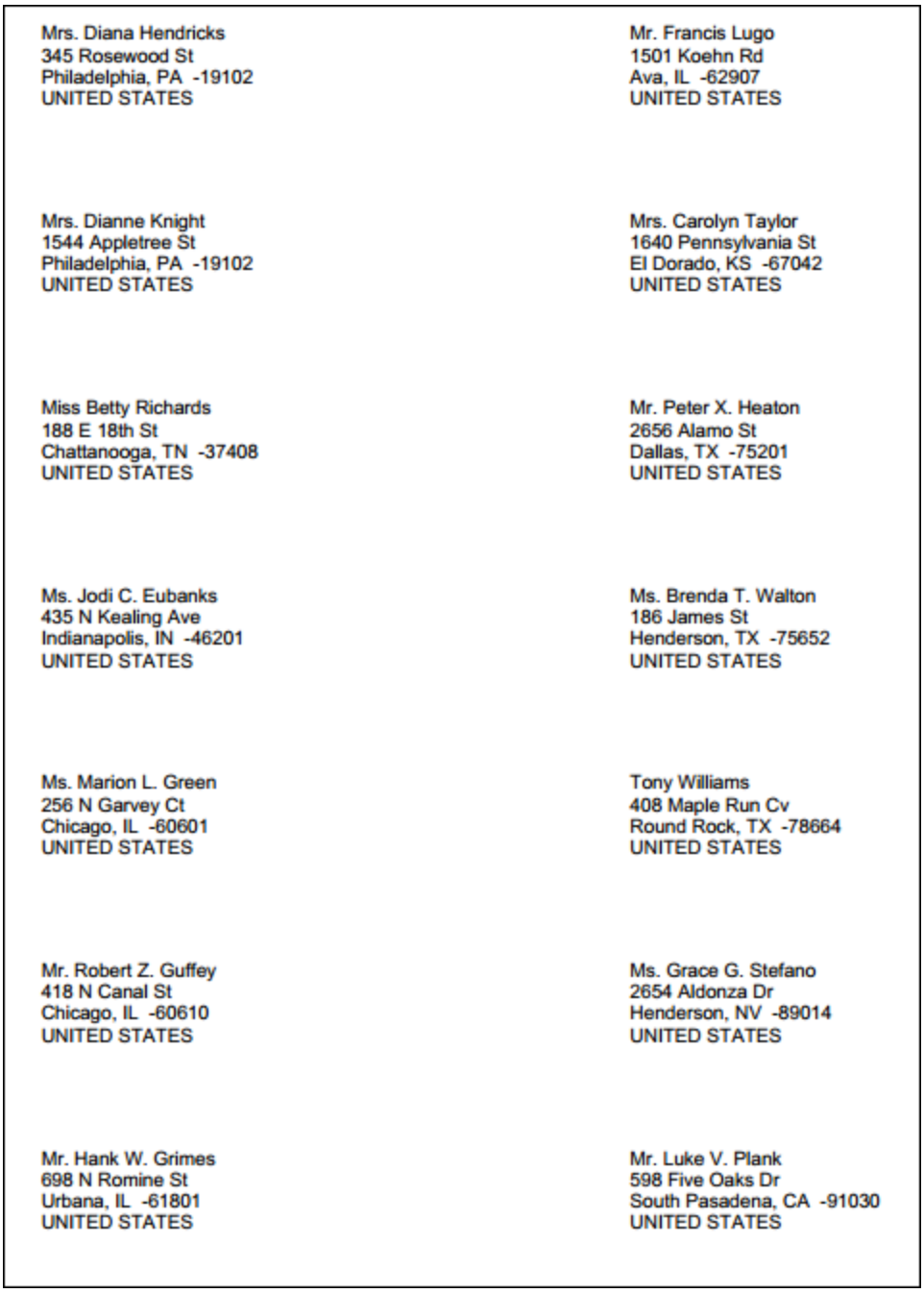
To print the report in the correct format for Avery 5162 or Avery 5262 stock, export to PDF, and then print.

---

**Note:** Contact label reports should be exported to PDF and only printed from Adobe Reader. Do not print the PDF directly from the browser window as the browser settings may not be compatible with the label layout. Do not export these reports to Excel as the exported layout does not print correctly on Avery stock.

**Note:** When printing in Adobe Reader to a stock label format, print to the actual size of the paper to maintain the correct page size. The default shrinks the size and will not align properly for the labels.

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Mrs. Diana Hendricks
345 Rosewood St
Philadelphia, PA -19102
UNITED STATES

Mr. Francis Lugo
1501 Koehn Rd
Ava, IL -62907
UNITED STATES

Mrs. Dianne Knight
1544 Appletree St
Philadelphia, PA -19102
UNITED STATES

Mrs. Carolyn Taylor
1640 Pennsylvania St
El Dorado, KS -67042
UNITED STATES

Miss Betty Richards
188 E 18th St
Chattanooga, TN -37408
UNITED STATES

Mr. Peter X. Heaton
2656 Alamo St
Dallas, TX -75201
UNITED STATES

Ms. Jodi C. Eubanks
435 N Kealing Ave
Indianapolis, IN -46201
UNITED STATES

Ms. Brenda T. Walton
186 James St
Henderson, TX -75652
UNITED STATES

Ms. Marion L. Green
256 N Garvey Ct
Chicago, IL -60601
UNITED STATES

Tony Williams
408 Maple Run Cv
Round Rock, TX -78664
UNITED STATES

Mr. Robert Z. Guffey
418 N Canal St
Chicago, IL -60610
UNITED STATES

Ms. Grace G. Stefano
2654 Aldonza Dr
Henderson, NV -89014
UNITED STATES

Mr. Hank W. Grimes
698 N Romine St
Urbana, IL -61801
UNITED STATES

Mr. Luke V. Plank
598 Five Oaks Dr
South Pasadena, CA -91030
UNITED STATES

Printing contact labels on A4-size paper

The **2 Up Labels A4.rdl** report allows you to print mailing labels for individual or company contacts on A4-size paper (210 x 297 mm), specifically Avery L7162 stock. The report prints 16 labels in 2 columns.

You have several options for tailoring the report to your specific needs. You can:

- select the labels' sort order
- limit to individual or company contacts or include both contact types
- specify address preferences (billing, mailing, or shipping)
- display the label text in upper-case if needed
- exclude the address if needed

Run this report from **Continuum > Contacts reports**.

To print the report in the correct format for Avery L7162 stock, export to PDF, and then print.

> **Note:** Contact label reports should be exported to PDF and only printed from Adobe Reader. Do not print the PDF directly from the browser window as the browser settings may not be compatible with the label layout. Do not export these reports to Excel as the exported layout does not print correctly on Avery stock.

> **Note:** When printing in Adobe Reader to a stock label format, print to the actual size of the paper to maintain the correct page size. The default shrinks the size and will not align properly for the labels.

Click to view image

Mrs. Diana Hendricks
345 Rosewood St
Philadelphia, PA -19102
UNITED STATES

Mrs. Carolyn Taylor
1640 Pennsylvania St
El Dorado, KS -67042
UNITED STATES

Mrs. Dianne Knight
1544 Appletree St
Philadelphia, PA -19102
UNITED STATES

Mr. Peter X. Heaton
2656 Alamo St
Dallas, TX -75201
UNITED STATES

Miss Betty Richards
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Chattanooga, TN -37408
UNITED STATES

Ms. Brenda T. Walton
186 James St
Henderson, TX -75652
UNITED STATES

Ms. Jodi C. Eubanks
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Indianapolis, IN -46201
UNITED STATES

Tony Williams
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Round Rock, TX -78664
UNITED STATES

Ms. Marion L. Green
256 N Garvey Ct
Chicago, IL -60601
UNITED STATES

Ms. Grace G. Stefano
2654 Aldonza Dr
Henderson, NV -89014
UNITED STATES

Mr. Robert Z. Guffey
418 N Canal St
Chicago, IL -60610
UNITED STATES

Mr. Luke V. Plank
598 Five Oaks Dr
South Pasadena, CA -91030
UNITED STATES

Mr. Hank W. Grimes
698 N Romine St
Urbana, IL -61801
UNITED STATES

Mr. Wendell Howell
200 13th St
Del Mar, CA -92014
UNITED STATES

Mr. Francis Lugo
1501 Koehn Rd
Ava, IL -62907
UNITED STATES

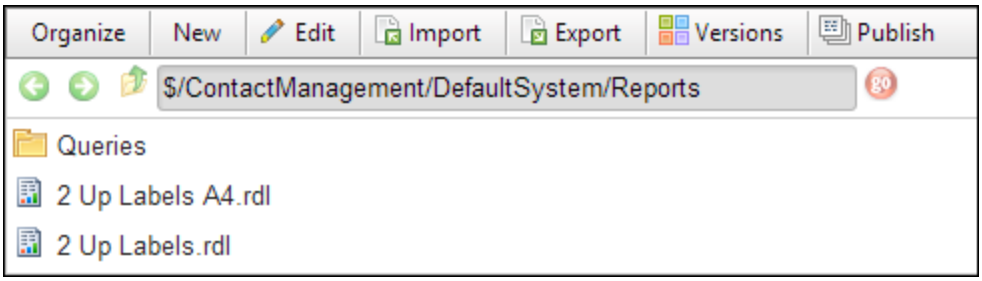
Mrs. Cynthia H. Mosley
43401 11th St E
Lancaster, CA -93535
UNITED STATES

## Running contact reports

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helpful, user-friendly layouts. These reports can be used to detail activity participation, personal information, and statistics. You can create labels, rosters, and certificates.

In many of the out-of-box reports, you can exert some control of the data contained in the report and how the data displays by specifying parameters, such as sort order and contact type. To further customize a report, you can edit the RDL file or query on which the report is based.



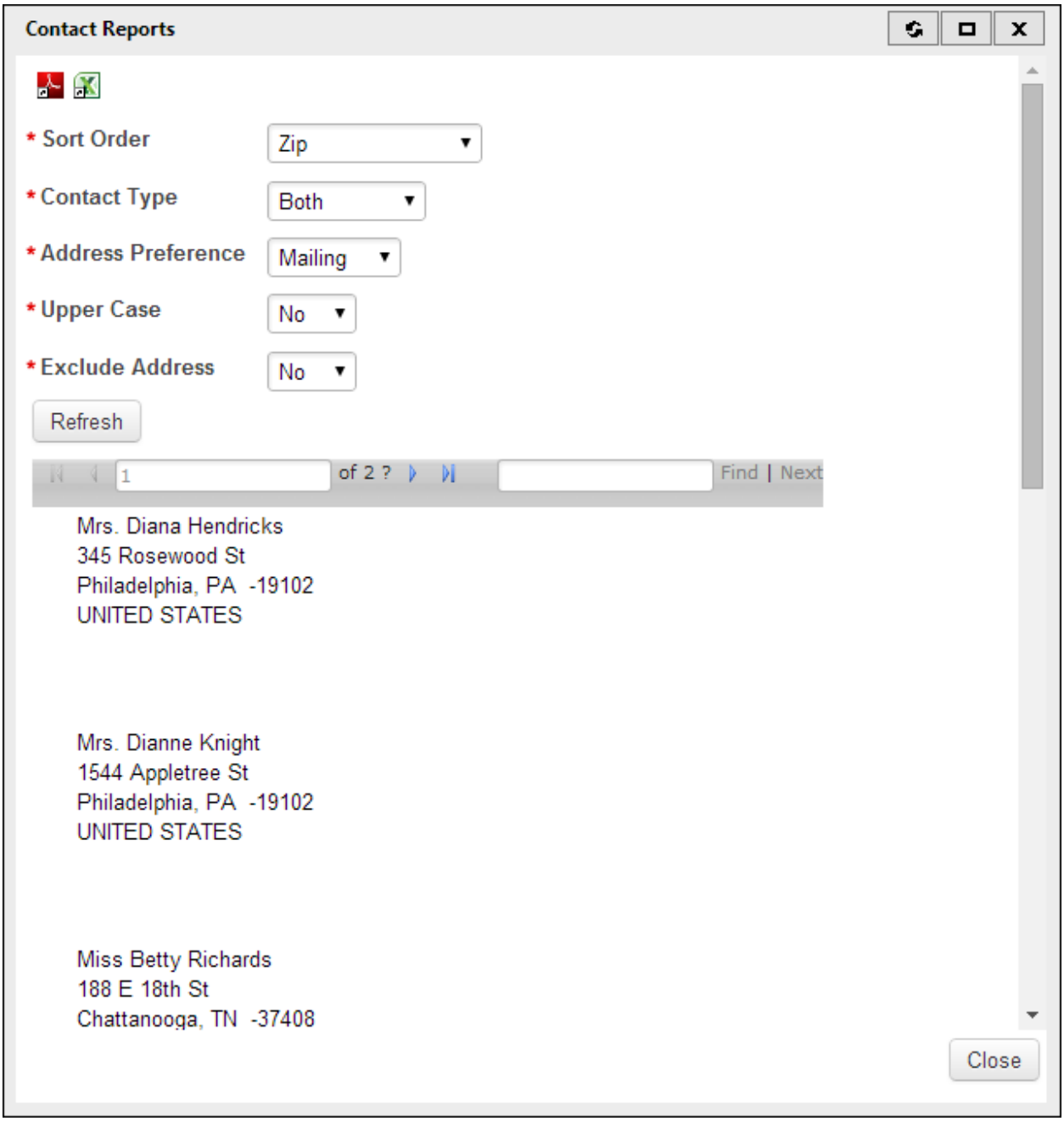

Running a contact report

1. Go to **Continuum > Contact reports**.
2. Select and run an existing report, for example, **2 Up Labels.rdl**.
3. Enter parameters as required.
4. Click **Refresh** (RDL file reports) or **Find** (query-based reports). A report is displayed.
5. Export the report to the appropriate format.

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Click to view image




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3. In the iMIS Document System, select and edit the report.
4. To upload the new version of the report file, select and navigate to the edited report file.
5. Save the report.
   Reports located at **Continuum > Contact reports > Queries** are based on IQA queries. If you want to edit a query, do the following:

1. Select edit an existing query.
2. Change the values on the **Summary**, **Sources**, **Filters**, **Display** and **Sorting** tabs as necessary.
   You can also create a new query. Go to Creating or editing a query (Basic mode) for more information.

Printing contact labels on letter-size paper

The **2 Up Labels.rdl** report allows you to print mailing labels for individual or company contacts on letter-size paper (8.5 x 11 inches), specifically Avery 5162 or 5262 stock. The report prints 14 labels in 2 columns.

You have several options for tailoring the report to your specific needs. You can:

- select the labels' sort order
- limit to individual or company contacts or include both contact types
- specify address preferences (billing, mailing, or shipping)
- display the label text in upper-case if needed
- exclude the address if needed

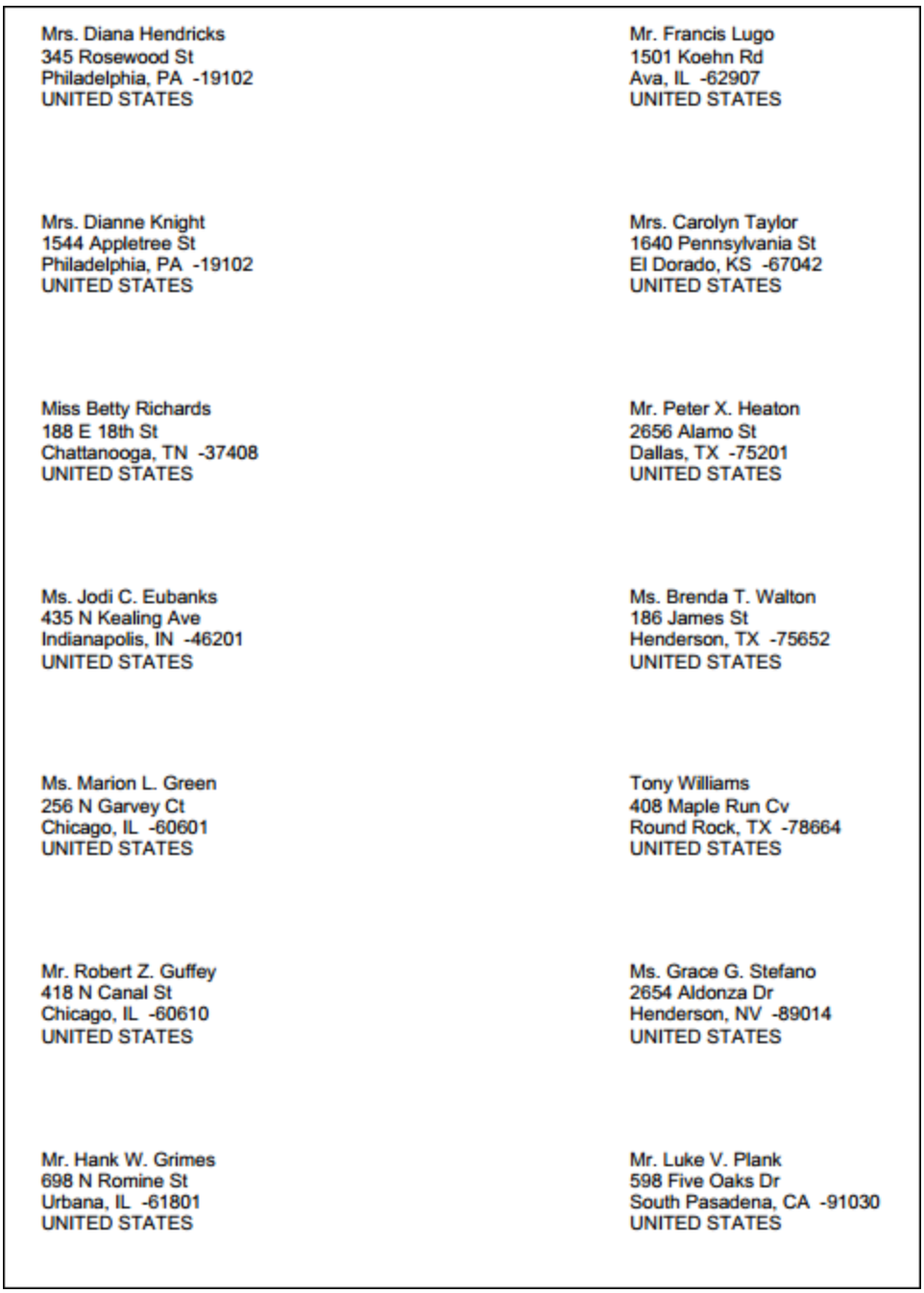
Run this report from **Continuum > Contact reports**.

To print the report in the correct format for Avery 5162 or Avery 5262 stock, export to PDF, and then print.

**Note:** Contact label reports should be exported to PDF and only printed from Adobe Reader. Do not print the PDF directly from the browser window as the browser settings may not be compatible with the label layout. Do not export these reports to Excel as the exported layout does not print correctly on Avery stock.

**Note:** When printing in Adobe Reader to a stock label format, print to the actual size of the paper to maintain the correct page size. The default shrinks the size and will not align properly for the labels.

Click to view image



Mrs. Diana Hendricks
345 Rosewood St
Philadelphia, PA -19102
UNITED STATES

Mr. Francis Lugo
1501 Koehn Rd
Ava, IL -62907
UNITED STATES

Mrs. Dianne Knight
1544 Appletree St
Philadelphia, PA -19102
UNITED STATES

Mrs. Carolyn Taylor
1640 Pennsylvania St
El Dorado, KS -67042
UNITED STATES

Miss Betty Richards
188 E 18th St
Chattanooga, TN -37408
UNITED STATES

Mr. Peter X. Heaton
2656 Alamo St
Dallas, TX -75201
UNITED STATES

Ms. Jodi C. Eubanks
435 N Kealing Ave
Indianapolis, IN -46201
UNITED STATES

Ms. Brenda T. Walton
186 James St
Henderson, TX -75652
UNITED STATES

Ms. Marion L. Green
256 N Garvey Ct
Chicago, IL -60601
UNITED STATES

Tony Williams
408 Maple Run Cv
Round Rock, TX -78664
UNITED STATES

Mr. Robert Z. Guffey
418 N Canal St
Chicago, IL -60610
UNITED STATES

Ms. Grace G. Stefano
2654 Aldonza Dr
Henderson, NV -89014
UNITED STATES

Mr. Hank W. Grimes
698 N Romine St
Urbana, IL -61801
UNITED STATES

Mr. Luke V. Plank
598 Five Oaks Dr
South Pasadena, CA -91030
UNITED STATES

Printing contact labels on A4-size paper

The **2 Up Labels A4.rdl** report allows you to print mailing labels for individual or company contacts on A4-size paper (210 x 297 mm), specifically Avery L7162 stock. The report prints 16 labels in 2 columns.

You have several options for tailoring the report to your specific needs. You can:

- select the labels' sort order
- limit to individual or company contacts or include both contact types
- specify address preferences (billing, mailing, or shipping)
- display the label text in upper-case if needed
- exclude the address if needed

Run this report from **Continuum > Contacts reports**.

To print the report in the correct format for Avery L7162 stock, export to PDF, and then print.

> **Note:** Contact label reports should be exported to PDF and only printed from Adobe Reader. Do not print the PDF directly from the browser window as the browser settings may not be compatible with the label layout. Do not export these reports to Excel as the exported layout does not print correctly on Avery stock.

> **Note:** When printing in Adobe Reader to a stock label format, print to the actual size of the paper to maintain the correct page size. The default shrinks the size and will not align properly for the labels.

Click to view image

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Mr. Hank W. Grimes
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Urbana, IL -61801
UNITED STATES

Mr. Wendell Howell
200 13th St
Del Mar, CA -92014
UNITED STATES

Mr. Francis Lugo
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Ava, IL -62907
UNITED STATES

Mrs. Cynthia H. Mosley
43401 11th St E
Lancaster, CA -93535
UNITED STATES

## SSRS reports

iMIS uses SQL Server Reporting Services (SSRS) to provide you with an extensive array of reporting options. You can run out-of-the-box reports on a variety of data within iMIS.

Reports are available from Continuum and the document system.

> **Note:** iMIS supports Crystal Reports, but all new iMIS reports use SSRS.

See Also

- Modifying an existing SSRS report
- Creating SSRS reports
- Customizing SSRS reports

## Modifying an existing SSRS report

You may in certain situations want to modify an existing SSRS report. To add or remove information from the report, you must download its RDL file and make adjustments to the SQL that the report uses.

Report changes are made in the Business Intelligence Development Studio (BIDS). BIDS is a part of Visual Studio that comes with SQL Server as an optional install option. iMIS SSRS reports are compatible with all versions of BIDS that install with the editions of SQL Server that iMIS supports:

- Microsoft SQL Server and Express Edition 2012 SP1

  > **Note:** If you are using SQL Server 2012, you must download Microsoft SQL Server Data Tools - Business Intelligence for Visual Studio 2012.

- Microsoft SQL Server and Express Edition 2008 SP3 and 2008 R2 SP2 (32-bit and 64-bit)

### To modify an existing SSRS report:

1. **Download** an existing report.
2. Edit the report in Business Intelligence Development Studio (BIDS), and save the report file:

a. Add the report RDL file to BIDS.
b. Review the query in the dataset to locate the **From** field. Modify the views of business objects and joins used by the report as needed.
c. Save your changes.

3. In the iMIS Document System, select the report and click **Edit**.

4. To upload the new version of the report file, click **Select** and navigate to the edited report file.
5. Save the report.

### Printing contact account statements

Staff users can conveniently view and print an account statement for any contact with an outstanding balance from the contact's staff account page on the Staff and Member sites. They can also run a report that provides account statements for all contacts in iMIS with outstanding balances.

An account statement is a summary of a contact's open invoices. It, however, does not include pledge payment, gifts, pledges, and automatic and cash renewal invoices.

You can print account statements on letter-size or A4-size paper, and can easily fold them to fit inside letter-size and C4, C5, C6, and DL-size envelopes.

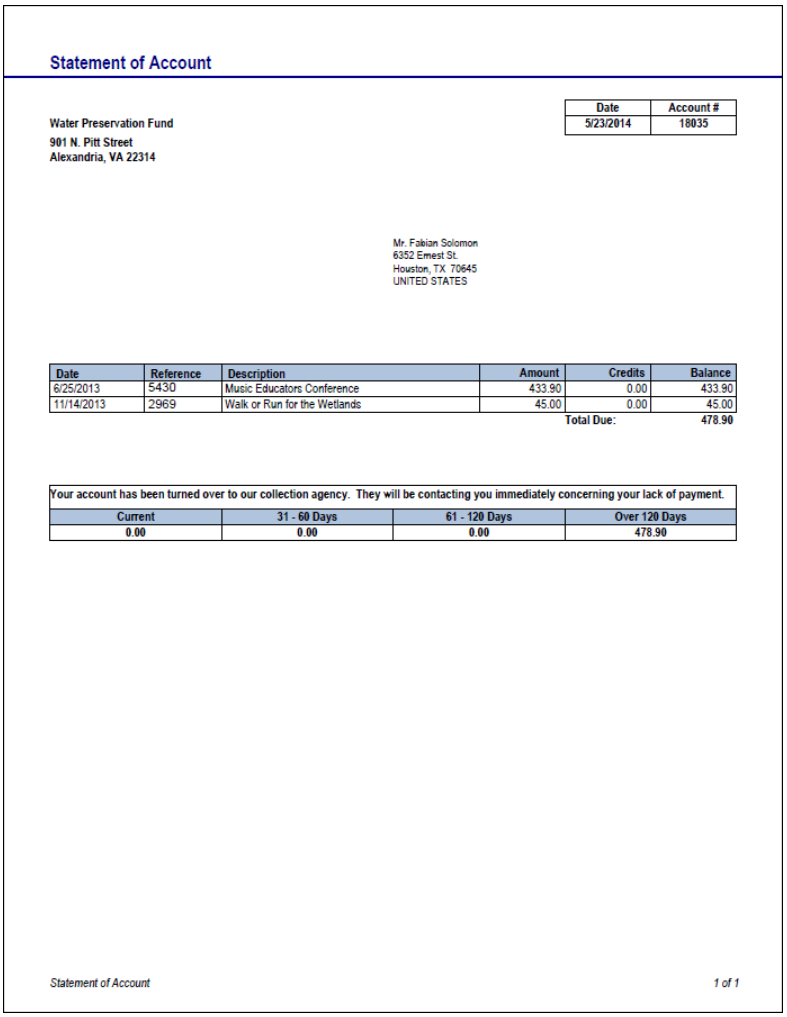
The account statement is the **ARStatement.rdl** report, which you can access on the **Participation** tab of a contact's staff profile page by clicking **Print Statement** in the **Open Invoices** section. It is also available in **RiSE > Document system**at **$/Accounting/DefaultSystem/Reports**.

> **Note:** This report differs from the **A/R Statements (Crystal)** report available in iMIS Desktop at **AR/Cash > Generate reports**.

#### To print an account statements:

1. Navigate to a contact's account page.
2. On the **Participation** tab, click **Print Statement**. The contact's account statement displays.
   - To print account statements for all contacts with outstanding balances, enter **All** in the **ID (or All)** field and refresh.
3. Export the account statement to PDF.
4. Print the PDF from Adobe Reader.

Click to view image



Statement of Account

| Date | Account # |
|---|---|
| 5/23/2014 | 18035 |

Water Preservation Fund
901 N. Pitt Street
Alexandria, VA 22314

Mr. Fabian Solomon
6352 Ernest St.
Houston, TX 70645
UNITED STATES

| Date | Reference | Description | Amount | Credits | Balance |
|---|---|---|---|---|---|
| 6/25/2013 | 5430 | Music Educators Conference | 433.90 | 0.00 | 433.90 |
| 11/14/2013 | 2969 | Walk or Run for the Wetlands | 45.00 | 0.00 | 45.00 |
| | | | | Total Due: | 478.90 |

Your account has been turned over to our collection agency. They will be contacting you immediately concerning your lack of payment.

| Current | 31 - 60 Days | 61 - 120 Days | Over 120 Days |
|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 478.90 |

*Statement of Account* *1 of 1*

## Using iMIS Translation

With iMIS Translation, your organization can transform your online presence to reach and engage with your members around the world. You can increase brand awareness, membership growth and revenue by engaging with potential users in their language. With a translated website, users can simply select their preferred language and your iMIS website is automatically presented in a friendly, familiar and engaging way for your users.

**Note:** In order to use Translation you must have a license key. Contact ASI for more information.

iMIS includes translated **Versions** (dictionaries) for the following **Cultures** (languages):

- Spanish
- Dutch
- French

Additional languages will be available in the future.

The following areas in iMIS are translated:

- Labels
- Prompts
- Navigation links
- Titles
- Tabs
- Column and row headings and identifiers
- Drop-down menu items
- ALT-text for images

Setting up and enabling iMIS Translation

Staff users can configure the translation mode used by iMIS Translation. The selected translation mode controls how iMIS Translation collects and translates new untranslated phrases.

> **Note:** The iMIS Translation feature does not support translation of user-provided data content.

Set up translation in iMIS

1. In the Staff site, go to **Settings > Language translation > General**.
2. Select the **Translation Mode**.

Translation modes

- **(None)** – Does not collect or attempt to translate untranslated phrases.
- **Learn only** – Collects new untranslated phrases for an active dictionary, but does not attempt to translate the phrases.
- **Translate only** – Translates phrases using the active dictionary for the selected language, but does not collect any new untranslated phrases.

- **Learn and translate known phrases** – Collects new untranslated phrases and adds them to the active dictionary, and translates phrases already contained in the active dictionary for the selected language.
- **Learn and translate using Microsoft® Translator** – Collects new untranslated phrases and adds them to the active dictionary, and translates phrases already contained in the active dictionary for the selected language. If a translation is not present in the active dictionary, the phrase is translated into the selected language using Microsoft Translator. If **Learn and translate using Microsoft® Translator** is selected, you must configure the Microsoft Translator. See Configuring Microsoft Translator.

> **Note:** You must activate a dictionary before you can apply the dictionary to your website. See Activating a version (dictionary) for more information.

> **Note:** When you select a **Translation Mode**, any websites that use the **Cities** or **Cities_Responsive** Master Pages will display a drop-down from which your users can select the translation language.

> **Note:** The **Mountains** Master Page is configured to provide the Translation drop-down for the Staff site.

Creating new dictionary versions for a language

Versions allow you to tailor your translation for multiple dialects. For example, you can create two different versions of Spanish: one version for Spanish-language speakers in Mexico, and another version for Spanish-language speakers in Spain. However, regardless of the customizations you make to your versions, you can only specify one language for your members. For example, if you make changes to a Spanish version and call it **Spanish-Mexico**, you will still only be able to display **Spanish** in the Translation drop-down on your websites.

You can also have only one active dictionary per language. For example, you can activate the new **Spanish-Mexico** version, but you will not be able to activate any other Spanish versions until you deactivate **Spanish-Mexico**.

> **Note:** You must be careful when naming custom dictionaries. Any dictionary that is named with the prefix **ASI_** will be overwritten on an upgrade. You must rename any dictionary that you do not want overwritten on upgrade.

Create new dictionary versions

1. On the Staff site, go to **Settings > Language translation > Translation cultures** and click the **Versions** link in the **Actions** column for the language for which you want to create a new version.
2. Click **New Version**.
3. Enter a **Name** and additional information.

> **Note:** When creating subsequent versions, the option **Copy from live version** is selected by default, if there is an existing dictionary for the initial version. This option is not available when you are creating the initial version. This option will create a new version of your language based on your live websites. If you select **Copy from other version**, the new version will be based on existing versions for the selected language. This option copies phrases from all existing versions of a language.

4. Click **Save**.

Activating a version (dictionary)

You must activate a dictionary before you can apply the dictionary to your website. To activate a dictionary, go to **Settings > Language translation > Translation cultures** and click the **Versions** link in the **Actions** column. Click **Activate** for the specific dictionary you want to use.

If a dictionary is not currently available for a language, you can import a translated dictionary. See Importing or exporting dictionaries.

> **Note:** You can have only one active dictionary per language. For example, you can have an active French dictionary and an active Dutch dictionary at the same time, but you cannot have two active French dictionaries.

Editing phrases in a dictionary

iMIS Translation enables you to edit phrases that you want to refine.

Edit phrases in a dictionary

1. Go to **Settings > Language translation > Translation cultures** and click **Versions** for the language for which you want to edit a dictionary.
2. If the dictionary you want to edit is currently active, click **Deactivate**.
3. Click **Phrases** for the dictionary you want to edit. This will open the **Version Editor**. You can select individual phrases to edit.
4. In the **Filter** tab, select **Show All** to see all phrases, or select **Show Only New** to see new phrases.
5. Search or browse to find a phrase you want to edit. You can search for the original or translated phrase.

   > **Note:** If you search for a phrase, click **Search**. Do not press **Enter**.

6. Click **Edit** for a phrase you want to edit. You can click **Delete** to remove a phrase from the dictionary.
7. Edit the **Translated Phrase** field.
8. Click **Update**.
9. You can also click **Update from Live Version** to update the selected dictionary with additional entries from a live dictionary of the same language.

   > **Note:** The ability to edit **Phrases** is only available if there is a pre-existing dictionary of a culture.

10. Click **Back to Versions List** and click **Activate** to view the changes on your website.

Adding a language

You can add a language in iMIS. For example, you can add **Dutch** to the list of languages in iMIS, and then simply import a translated phrase dictionary.

Spanish, Dutch and French are available in iMIS by default.

Add a new language

1. Go to **Settings > Language translation > Translation cultures**.
2. Click **New Culture**.

3. Enter a **Culture ID** and a **Name** for the new language.

> **Note:** The **Culture ID** must conform to the ISO-639-1 two-letter language-name codes, for example, **en** (English) or **fr** (French).

4. Click **Save** to save your new language. You can then import a translated dictionary for the new language.

Importing or exporting dictionaries

You can easily import a new translated phrase dictionary into iMIS, or create a new dictionary based on an existing one. You can either import a new spreadsheet that contains translated phrases, or you can export an existing version into an Excel spreadsheet, then edit the phrases in that spreadsheet and import the modified spreadsheet to create a new dictionary.

> **Note:** You might need to download Access drivers to be able to import the Excel spreadsheet. You can go to the Microsoft Download Center to download the Microsoft Access Database Engine Redistributable that is compatible with the version of Microsoft Windows installed on your system (32- or 64- bit version). Be sure to read all System Requirements before downloading.

You must be careful when naming custom dictionaries. Any dictionary that is named with the prefix **ASI_** will be overwritten on an upgrade. You must rename any dictionary that you do not want overwritten on upgrade.

Click to view image

| | A | B | C | D | E |
|---|---|---|---|---|---|
| 1 | **Phrase** | **TranslatedPhrase** | **DoNotLocalize** | **ControlType** | **Description** |
| 2 | Everyone Read/Write | Accessible en lecture/écriture à tous | False | | |
| 3 | Publish All Items | Publier tous les éléments | False | | |
| 4 | Tax Schedule | Calendrier fiscal | False | | |
| 5 | Manage websites | Gérer les sites Web | False | | |
| 6 | Chapter | Section | False | | |
| 7 | Maryland | Maryland | False | | |
| 8 | Workflow | Workflow | False | | |
| 9 | My Chapters & Sections | Mes sections | False | | |
| 10 | Program components | Composants du programme | False | | |
| 11 | Program Application | Application du programme | False | | |
| 12 | Registrations by Type List | Liste des inscriptions par type | False | | |
| 13 | Company Only | Société seulement | False | | |
| 14 | Create new blog post | Créer un nouveau post de blog | False | | |

Importing a dictionary spreadsheet

You can import a new translated phrase dictionary into iMIS that contains translated phrases.

Import a dictionary spreadsheet

1. Go to **Settings > Language translation > Translation cultures** and click **Versions** for the language for which you want to import a dictionary spreadsheet.
2. If the version into which you want to import is active, click **Deactivate**.

> **Note:** If you do not already have an existing version for this language, create one. See Creating new dictionary versions for a language.

3. Click **Phrases** for the version into which you want to import a phrase spreadsheet.
4. On the **Import/Export** tab, click **Import Phrases from Excel**.
5. Click **Choose File** to select the Excel file you want to import.
6. Click **Start Importing**. A results screen will be displayed when the import is completed.
7. Click **Close**.
8. Click **Back to Versions List**.
9. Click **Activate** to activate your new dictionary.

Exporting a dictionary spreadsheet

You can export a translated dictionary spreadsheet, for example, in order to edit the dictionary offline.

Export a dictionary spreadsheet

1. Go to **Settings > Language translation > Translation cultures** and click **Versions** for the culture for which you want to export a dictionary spreadsheet.
2. If the version from which you want to export is currently active, click **Deactivate**.
3. Click **Phrases** for the version from which you want to export.
4. On the **Import/Export** tab, click **Export Phrases to Excel**.
5. Modify the exported spreadsheet as you like. You can import the modified file to a new version.

Configuring Microsoft Translator

If you want to experiment with the look and feel of your websites and how they might behave under different translations, you can use the Microsoft Translator. This tool will allow you to create a basic, temporary dictionary that you can use to experiment with web-site translation.

> **Note:** ASI does not recommend using dictionaries created by Microsoft Translator or similar machine-translation tools for live websites. It is accepted best practice within the language translation industry to avoid the use of machine translation in software intended for live production use.

Enable the Microsoft Translator service

Enter your **Microsoft® Translator ID** and **Microsoft® Translator Password** to enable the Microsoft Translator service. To obtain these credentials, you must:

1. Create a Microsoft account if you do not already have one.
2. Sign up for **Microsoft® Translator** at the Windows Azure Marketplace.
3. Register at the Windows Azure DataMarket. During the registration process, you will create a **Client ID** and **Client Secret** that you will use as your **Microsoft® Translator ID** and **Microsoft® Translator Password**.

> **Note:** If you select **Learn and translate using Microsoft® Translator**, you will experience a decrease in performance when interacting with functionality that uses an AJAX control, for example, selecting a different **Payment Method** in the Cart.

## Using iMIS Translation

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- ALT-text for images

Setting up and enabling iMIS Translation

Staff users can configure the translation mode used by iMIS Translation. The selected translation mode controls how iMIS Translation collects and translates new untranslated phrases.

> **Note:** The iMIS Translation feature does not support translation of user-provided data content.

Set up translation in iMIS

1. In the Staff site, go to **Settings > Language translation > General**.
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Translation modes

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You can also have only one active dictionary per language. For example, you can activate the new **Spanish-Mexico** version, but you will not be able to activate any other Spanish versions until you deactivate **Spanish-Mexico**.

> **Note:** You must be careful when naming custom dictionaries. Any dictionary that is named with the prefix **ASI_** will be overwritten on an upgrade. You must rename any dictionary that you do not want overwritten on upgrade.

Create new dictionary versions

1. On the Staff site, go to **Settings > Language translation > Translation cultures** and click the **Versions** link in the **Actions** column for the language for which you want to create a new version.
2. Click **New Version**.
3. Enter a **Name** and additional information.

   > **Note:** When creating subsequent versions, the option **Copy from live version** is selected by default, if there is an existing dictionary for the initial version. This option is not available when you are creating the initial version. This option will create a new version of your language based on your live websites. If you select **Copy from other version**, the new version will be based on existing versions for the selected language. This option copies phrases from all existing versions of a language.

4. Click **Save**.

Activating a version (dictionary)

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7. Edit the **Translated Phrase** field.
8. Click **Update**.
9. You can also click **Update from Live Version** to update the selected dictionary with additional entries from a live dictionary of the same language.

> **Note:** The ability to edit **Phrases** is only available if there is a pre-existing dictionary of a culture.

10. Click **Back to Versions List** and click **Activate** to view the changes on your website.

Adding a language

You can add a language in iMIS. For example, you can add **Dutch** to the list of languages in iMIS, and then simply import a translated phrase dictionary.

Spanish, Dutch and French are available in iMIS by default.

Add a new language

1. Go to **Settings > Language translation > Translation cultures**.
2. Click **New Culture**.
3. Enter a **Culture ID** and a **Name** for the new language.

> **Note:** The **Culture ID** must conform to the ISO-639-1 two-letter language-name codes, for example, **en** (English) or **fr** (French).

4. Click **Save** to save your new language. You can then import a translated dictionary for the new language.

Importing or exporting dictionaries

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> **Note:** You might need to download Access drivers to be able to import the Excel spreadsheet. You can go to the Microsoft Download Center to download the Microsoft Access Database Engine Redistributable that is compatible with the version of Microsoft Windows installed on your system (32- or 64- bit version). Be sure to read all System Requirements before downloading.

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Click to view image

| | A | B | C | D | E |
|---|---|---|---|---|---|
| 1 | **Phrase** | **TranslatedPhrase** | **DoNotLocalize** | **ControlType** | **Description** |
| 2 | Everyone Read/Write | Accessible en lecture/écriture à tous | False | | |
| 3 | Publish All Items | Publier tous les éléments | False | | |
| 4 | Tax Schedule | Calendrier fiscal | False | | |
| 5 | Manage websites | Gérer les sites Web | False | | |
| 6 | Chapter | Section | False | | |
| 7 | Maryland | Maryland | False | | |
| 8 | Workflow | Workflow | False | | |
| 9 | My Chapters & Sections | Mes sections | False | | |
| 10 | Program components | Composants du programme | False | | |
| 11 | Program Application | Application du programme | False | | |
| 12 | Registrations by Type List | Liste des inscriptions par type | False | | |
| 13 | Company Only | Société seulement | False | | |
| 14 | Create new blog post | Créer un nouveau post de blog | False | | |

Importing a dictionary spreadsheet

You can import a new translated phrase dictionary into iMIS that contains translated phrases.

Import a dictionary spreadsheet

1. Go to **Settings > Language translation > Translation cultures** and click **Versions** for the language for which you want to import a dictionary spreadsheet.
2. If the version into which you want to import is active, click **Deactivate**.

> **Note:** If you do not already have an existing version for this language, create one. See Creating new dictionary versions for a language.

3. Click **Phrases** for the version into which you want to import a phrase spreadsheet.
4. On the **Import/Export** tab, click **Import Phrases from Excel**.
5. Click **Choose File** to select the Excel file you want to import.
6. Click **Start Importing**. A results screen will be displayed when the import is completed.
7. Click **Close**.
8. Click **Back to Versions List**.

9. Click **Activate** to activate your new dictionary.

Exporting a dictionary spreadsheet

You can export a translated dictionary spreadsheet, for example, in order to edit the dictionary offline.

Export a dictionary spreadsheet

1. Go to **Settings > Language translation > Translation cultures** and click **Versions** for the culture for which you want to export a dictionary spreadsheet.
2. If the version from which you want to export is currently active, click **Deactivate**.
3. Click **Phrases** for the version from which you want to export.
4. On the **Import/Export** tab, click **Export Phrases to Excel**.
5. Modify the exported spreadsheet as you like. You can import the modified file to a new version.

Configuring Microsoft Translator

If you want to experiment with the look and feel of your websites and how they might behave under different translations, you can use the Microsoft Translator. This tool will allow you to create a basic, temporary dictionary that you can use to experiment with website translation.

> **Note:** ASI does not recommend using dictionaries created by Microsoft Translator or similar machine-translation tools for live websites. It is accepted best practice within the language translation industry to avoid the use of machine translation in software intended for live production use.

Enable the Microsoft Translator service

Enter your **Microsoft® Translator ID** and **Microsoft® Translator Password** to enable the Microsoft Translator service. To obtain these credentials, you must:

1. Create a Microsoft account if you do not already have one.
2. Sign up for **Microsoft® Translator** at the Windows Azure Marketplace.
3. Register at the Windows Azure DataMarket. During the registration process, you will create a **Client ID** and **Client Secret** that you will use as your **Microsoft® Translator ID** and **Microsoft® Translator Password**.

> **Note:** If you select **Learn and translate using Microsoft® Translator**, you will experience a decrease in performance when interacting with functionality that uses an AJAX control, for example, selecting a different **Payment Method** in the Cart.

## Accessing the iMIS Advanced Accounting Console from a Web Browser

Using simple IIS web server capability, Microsoft's Remote Desktop ActiveX control, and Internet Explorer, it is possible to access iMIS Advanced Accounting Console functionality from a web browser alone. With the addition of the IE Tab extension from ietab.net, the Advanced Accounting Console can also be rendered and viewed within Firefox and Google Chrome.

The Advanced Accounting Console is a streamlined, easy-to-use interface alternative for customer service and other staff functions. The Advanced Accounting Console allows an administrator to define and set up iMIS. Users can now access the Advanced Accounting Console directly though the iMIS Staff site, from a web browser.

The Advanced Accounting Console can be accessed through a navigation link that is included in the iMIS Staff site. Go to **Commerce > Advanced Accounting Console**. When you go to this link, you might see the following message:

Unable to connect to the iMIS Advanced Accounting Console.

If you see this message, your Advanced Accounting Console content item is not configured. You must configure your server and your client before you can access the Advanced Accounting Console from the Staff site. See Configuring the Server and Configuring the Client.

### Configuring the Server

Do the following to configure the server:

1. Log in to the server as an administrator.
2. Verify Microsoft OS, IIS, and Remote Desktop Services are installed, active, and updated to the latest Critical, Important, and Recommended updates or hotfixes.
3. Ensure that **Internet Explorer Enhanced Security Configuration** is disabled for both **Administrators** and **Users**.

a. Go to **Start > Administrative Tools > Server Manager**.
b. Select **Server Manager**.
c. In the **Security Information** area, click **Configure IE ESC**.
d. Verify that the **Off** checkboxes for both **Administrators** and **Users** are enabled.

4. Install the **Remote Desktop Services** role.

a. On the computer on which you want to install the **Remote Desktop Session Host** role service, open **Server Manager**.

- If the **Remote Desktop Services** role is not already installed:

i. Under **Roles Summary**, click **Add Roles**.
ii. On the **Before You Begin** page of the **Add Roles Wizard**, click **Next**.
iii. On the **Select Server Roles** page, select the **Remote Desktop Services** checkbox, and then click **Next**.
iv. Click **Next** again.
v. On the **Select Role Services** page, select the **Remote Desktop Session Host** checkbox, and then click **Next**.

- If the **Remote Desktop Services** role is already installed:

i. Under **Roles Summary**, click **Remote Desktop Services**.
ii. Under **Role Services**, click **Add Role Services**.
iii. On the **Select Role Services** page, select the **Remote Desktop Session Host** checkbox, and then click **Next**.

b. On the **Uninstall and Reinstall Applications for Compatibility** page, click **Next**.
c. On the **Specify Authentication Method for Remote Desktop Session Host** page, select the desired authentication method, and then click **Next**.
d. On the **Specify Licensing Mode** page, select the licensing mode that applies to your **Remote Desktop Services** environment, and then click **Next**.
e. On the **Select User Groups Allowed Access To This Remote Desktop Session Host** page, add any users or groups that you want to add to the **Remote Desktop Users** group, and then click **Next**.

> **Note:** You can add users at a later time, if necessary.

f. On the **Configure Client Experience** page, select the client experience that you want to provide, and then click **Next**.

g. On the **Confirm Installation Selections** page, verify that the **RD Session Host** role service will be installed, and then click **Install**. On the **Installation Progress** page, installation progress will be noted.
h. On the **Installation Results** page, you are prompted to restart the server to finish the installation process. Click **Close**, and then click **Yes** to restart the server. If you are prompted that other programs are still running, do either of the following:

- Click **Cancel** to close the programs manually and restart the server later.
- Click **Restart now** to automatically close the programs and restart the server.

i. After the server restarts and you log on to the computer with the same account, the remaining steps of the installation will finish. When the **Installation Results** page appears, confirm that installation of the **RD Session Host** role service succeeded.

5. Add a local user to the server.
a. In your **Server Manager**, go to **Configuration > Local Users and Groups > Users**.
b. Right click on **Users** and click **New User**.
c. Enter the appropriate information for the new user.
d. Provide a password for the local user.
e. Click **Create**, and then close the **New User** dialog window.
f. Go to **Configuration > Local Users and Groups > Groups**.
g. Double-click the group to which you want to add the user. Add the local user to the **Users**, **TS Web Access Computers**, and **Remote Desktop Users** groups.
h. Go to the directory where iMIS is installed, for example, **C:\Program Files (x86)\ASI\iMIS**, and give the local user **Modify** and **Write** access to all files in that directory. This will be the single Windows credentials account used to provide access to the Advanced Accounting Console from a browser.
i. Right-click and select **Properties > Security**.
ii. Click **Edit** to add a user and provide appropriate access rights.
iii. Click **OK**.
i. Grant **Modify** and **Write** privileges to all files and directories for the instance of the iMIS Desktop client that is specific to each unique local user.

6. Ensure that sufficient Remote Desktop Services connection Client Access Licenses (CALs) have been applied to the server to accommodate the total number of staff users expected to connect at any given time.

7. Install only the iMIS Desktop client. The default file location is **C:\Program Files (x86)\ASI\iMIS**. For more information, see Installing iMIS.

   > **Note:** Install or upgrade to the iMIS Application Server web components on a separate web server.

8. Log off from the server.
9. Log back in to the server using the new local user account.
10. Open Internet Explorer and let the browser perform the initial browser setup. This enables JavaScript processing which iMIS requires in the Advanced Accounting Console.

    > **Note:** In a multi-instance deployment of the iMIS Desktop client where multiple customers each have their own instance of the Desktop client on the same server, you must create a unique local user for each customer, for example, **ClientA** for CustomerA, **ClientB** for CustomerB, **ClientC** for CustomerC, and so forth.

11. Log off from the server.
12. Log in to the server again as an administrator.
13. Go to **Start > Administrative Tools > Remote Desktop Services** and run **Remote Desktop Session Host Configuration** as an administrator.
14. Right-click in the **Edit settings** area and select **Properties**. Ensure that the correct **General** settings are selected.
    - **Delete temporary files on exit**
    - **Use temporary folders per session**
    - **User logon mode** – **Allow all connections**
15. In the **Connections** area, right-click the name of the connection (**RDP-Tcp**), and then click **Properties**.
    a. (**Sessions** tab) Select the first **Override user settings** checkbox on the dialog window, and set the following timeout settings:
    - End a disconnected session – **1 minute**
    - Active session limit – **Never**
    - Idle session limit – **1 hour**

    b. Select the second **Override user settings** checkbox.
    c. Select the reconnection setting **End session**.

d. Click **OK**. Changes to timeout and reconnection settings are not applied to sessions that are connected when the change is made. The changes will take effect the next time the user establishes a new connection to the **Remote Desktop Session Host** server.

16. Go to **Start > Administrative Tools > Remote Desktop Services**, and then click **RemoteApp Manager**.
a. (**Overview** area) Click **Change** next to **RD Session Host Server Settings**.
b. (**RD Session Host Server** tab) Select the **Do not allow users to start unlisted programs on initial connection** radio button.
c. (**RD Gateway** tab) Select the **Do not use an RD Gateway server** radio button.
d. (**Common RDP Settings** tab) Select the **Printers** and **Disk drives** checkboxes in the **Devices and resources** section.
e. (**Common RDP Settings** tab) In the **User experience** section, select the **Allow font smoothing** checkbox, and select **Highest Quality (32 bit)** in the **Colors** drop-down.
f. Click **OK** and exit the dialog.
g. (**Actions** area) Click **Add RemoteApp Programs** to start the **Remote App Wizard**.
i. Click **Next**.
ii. In the list of available programs, select the **iMIS Desktop** checkbox.
iii. Click **Next**.
iv. Click **Finish**. **iMIS Desktop** is displayed in the list of **RemoteApp Programs**.
v. In the list of **RemoteApp Programs**, right-click on **iMIS Desktop** and select **Properties**.
vi. Select the **Allow any command-line arguments** option.
vii. Click **OK**.
viii. Click **Yes** at the **RemoteApp Wizard** security warning.

17. Make sure you can access iMIS Advanced Accounting Console as an administrator.
a. Go to **Start > ASI > iMIS**.
b. Right-click **iMIS Desktop** and select **Properties**.
c. (**Compatibility** tab) Select **Run this program as an administrator**.
d. Click **Apply** and then click **OK**.

18. You can use a SQL script (**UpdateAdminConsoleBlobParameters.sql**) to configure the Advanced Accounting Console content item. Go to the default install location to access the SQL script (**C:\Program Files (x86)\ASI\iMIS\cleandb\SampleScripts**).

You must edit the SQL script to provide the following information which will be used by the Advanced Accounting Console content item.

- **Windows domain** – The domain in which the local user was created.
- **Server address** – The address of the server where the Advanced Accounting Console is hosted.
- **Windows username** – The local user.
- **Windows password** – The password for the local user.
- **Height** – The height of the displayed Advanced Accounting Console in the browser.
- **Width** – The width of the displayed Advanced Accounting Console in the browser.
- **Command line** – The standard location where iMIS Desktop is installed, by default. This location can be changed.
- **Working directory** – This is the standard location where the Omnis files are installed, for example, **C:\Program Files (x86)\ASI\iMIS**.

19. Configure your browser on your client.
20. After you configure your browser, go to your Staff site.
21. Set the navigation item to open the Advanced Accounting Console in a new window.
    a. Go to **RiSE > Site Builder > Manage sitemaps**.
    b. Select the **Staff** site from the drop-down, and go to **Commerce > Advanced Accounting Console**.
    c. (**Options** tab) Select **Open the link in a new window**.
    d. **Save** and **Publish**.
22. Set the navigation item to open the Advanced Accounting Console in a new window.
    a. Go to **RiSE > Site Builder > Manage sitemaps**.
    b. Select the **Staff** site from the drop-down, and go to **Commerce > Advanced Accounting Console**.
    c. (**Options** tab) Select **Open the link in a new window**.
    d. **Save** and **Publish**.
23. Republish your Advanced Accounting Console content item.
    a. Go to **RiSE > Page Builder > Manage content**.
    b. Select the Advanced Accounting Console content item (**@ > Core Content > Tools > AACPortal**).
    c. Click **Publish**. Select the **Publish Working Items, Regenerate Published Items** option.

d. Select **Organize > Refresh** to verify the content has been republished.

24. Go to **Commerce > Advanced Accounting Console** to open the Advanced Accounting Console in your browser.

> **Note:** The first time you access the Advanced Accounting Console from the Staff site in Internet Explorer, you must agree to allow the webpage to run a **Remote Desktop Services ActiveX Client** add-on.

### Configuring the Client

For all three browser variants, verify they are installed, active, and updated to their latest updates or hotfixes. For more information about latest versions of the supported browsers, see the System requirements.

> **Note:** The first time you access the Advanced Accounting Console from the Staff site in Internet Explorer, you must agree to allow the webpage to run a **Remote Desktop Services ActiveX Client** add-on.

#### Adding the Server Domain as a Trusted Site in Internet Explorer

Your server domain must be added as a **Trusted Site** in Internet Explorer, regardless of which supported browser you use to display the Advanced Accounting Console.

1. In Internet Explorer, go to **Tools > Internet options**.
2. (**Security** tab) Select **Trusted sites**, and then click **Sites**.

> **Note:** Make sure the **Require server verification (https:) for all sites in this zone** checkbox is not selected.

3. Enter `http://<www.yourdomain.com>`, where `<www.yourdomain.com>` is the fully qualified domain name or IP address of the server.
4. Click **Add**, then click **Close**, and click **OK**.
5. Close out of Internet Explorer completely and restart the Internet Explorer browser to make the changes take effect.

#### Configuring your Browser

Internet Explorer 11

Configure Internet Explorer 11.

1. Download Microsoft's Enterprise Mode Site List Manager.
2. Install the **Enterprise Mode Site List Manager** on the client machine.
3. Open the **Enterprise Mode Site List Manager** and add the staff site root URL.

   **Note:** Ensure the Staff site URL is added as a **Trusted site** in Internet Explorer.

4. Select **File > Save to XML** to save the file to the client machine.
5. Enable **EnterpriseMode** on each end user's machine.

a. Open the **Registry Editor**. At a command prompt, type **regedit**.

b. Go to **HKEY_CURRENT_USER\Software\Policies\Microsoft \Internet Explorer-\Main\EnterpriseMode** or **HKEY_LOCAL_MACHINE\SOFTWARE\ Policies\Microsoft \Internet Explorer\Main\EnterpriseMode**.

   **Note:** You might have to add the **Main** and **EnterpriseMode** keys on non-Win8.1 machines. If you find the **EnterpriseMode** key displays the **Disable** name value, delete it and add the **Enable** name value instead. Next, add a string value named **SiteList** and set its data value as the location of the XML file you created and stored previously.

c. Close the **Registry Editor**. On the end user's computer, open Internet Explorer 11. Open the **Tools** drop-down, and you see **Enterprise Mode** as a checkable option near the top of the pull-down menu.

   **Note:** You do not need check **Enterprise Mode**, as Internet Explorer 11 will automatically do so when you go to the Staff site you specified in the **Enterprise Mode Site List Manager**.

d. Go to the Staff site. It will automatically render in Internet Explorer 8 mode.

e. Log in and click the **Advanced Accounting Console** link. A new browser window for the Advanced Accounting Console will open. You can then drag the new **Advanced Accounting Console** tab into the original browser for a single browser/side-by-side tab experience.

Configure Internet Explorer 11 on Windows 8.1.

1. Open a command prompt.
2. Enter **gpedit.msc** and press **Enter**.
3. In the **Local Group Policy Editor**, go to **User Configuration > Administrative Templates > Windows Components > Internet Explorer**.
4. Find **Let users turn on and use Enterprise Mode from the Tools menu** and double-click the option.
5. In the dialog window, click **Enabled**.
6. Click **Apply**, then click **OK** to accept the changes.
7. Close the **Group Policy Editor**.
8. Close all open Internet Explorer browser windows.
9. Open a new Internet Explorer browser window.
10. Press **Alt** on your keyboard and go to **Tools > Enterprise Mode**.

Firefox

To view the Advanced Accounting Console from a browser, an ActiveX control is required. For Firefox, this requires the installation of an IE Tab add-on.

1. In your Firefox browser, select **Open menu > Add-ons**.
2. Search for **IE Tab V2**.
3. Find **IE Tab V2 (Enhanced IE Tab)** in the search results, and click **Install**.
4. Restart your browser.
5. Select **Open menu > Add-ons > Extensions**. For the new **IE Tab 2** extension, click **Options**.
6. In the **Sites Filter** tab, ensure the **Enable Sites Filter** checkbox is checked and enter the following URL in the **Add** field:

   ```
   /https?://<www.yourdomain.com>.*/iParts/Com-
   mon/AdminConsole/AdminConsoleHost.aspx.*/
   ```

   where `<www.yourdomain.com>` is the fully qualified domain name or IP address of the server.

7. In the **General Settings** tab, ensure the following options are enabled:

- **Tools Menu Item**
- **Tools Menu Icon**
- **Status Bar Icon**

- **Always use current engine to open a new URL**
- **Focus on the new tab when switching engines**
- **Run the plugin in the firefox.exe process (requires restart)**

8. In the **Context Menu** tab, ensure the following options are enabled:

- **Tabbar Tabs context menu shows following items:**
- **Switch rendering engine**
- **Open in Ext.App.**
- **Icon**
- **Content Area context menu shows following items:**
- **View Page in IE Tab**
- **View Page in Ext.App.**
- **Icon**
- **Personal bookmarks context menu shows following items:**
- **Open in IE Tab**
- **Open in Ext.App.**
- **Icon**

9. Click **OK**, and close Firefox.
10. Restart Firefox to make the changes take effect.

Chrome

To view the Advanced Accounting Console from a browser, an ActiveX control is required. For Chrome, this requires the installation of an IE Tab add-on.

1. Go to **Customize and control Google Chrome > More tools > Extensions**.
2. Click **Get more extensions**.
3. In the search field, enter **IE Tab**.
4. Find **IE Tab** in the search results.
5. Install the add-on and enable it.
6. Under **General Options** in the **IE Tab Options**, ensure the **Enable Auto URLs** and **Open pop-up windows with Chrome** checkboxes are checked.
7. Under **Auto URLs**, enter the following URL in the **Add** field:
   `r/https?://<www.yourdomain.com>.*/iParts/Common/AdminConsole/AdminConsoleHost.aspx.*`

where <*www.yourdomain.com*> is the fully qualified domain name or IP address of the server.

8. Click **Add**.
9. Close Chrome.
10. Restart Chrome to make the changes take effect.

## Accessing the iMIS Advanced Accounting Console from a Web Browser

Using simple IIS web server capability, Microsoft's Remote Desktop ActiveX control, and Internet Explorer, it is possible to access iMIS Advanced Accounting Console functionality from a web browser alone. With the addition of the IE Tab extension from ietab.net, the Advanced Accounting Console can also be rendered and viewed within Firefox and Google Chrome.

The Advanced Accounting Console is a streamlined, easy-to-use interface alternative for customer service and other staff functions. The Advanced Accounting Console allows an administrator to define and set up iMIS. Users can now access the Advanced Accounting Console directly though the iMIS Staff site, from a web browser.

The Advanced Accounting Console can be accessed through a navigation link that is included in the iMIS Staff site. Go to **Commerce > Advanced Accounting Console**. When you go to this link, you might see the following message:

> Unable to connect to the iMIS Advanced Accounting Console.

If you see this message, your Advanced Accounting Console content item is not configured. You must configure your server and your client before you can access the Advanced Accounting Console from the Staff site. See Configuring the Server and Configuring the Client.

### Configuring the Server

Do the following to configure the server:

1. Log in to the server as an administrator.
2. Verify Microsoft OS, IIS, and Remote Desktop Services are installed, active, and updated to the latest Critical, Important, and Recommended updates or hotfixes.

3. Ensure that **Internet Explorer Enhanced Security Configuration** is disabled for both **Administrators** and **Users**.

a. Go to **Start > Administrative Tools > Server Manager**.
b. Select **Server Manager**.
c. In the **Security Information** area, click **Configure IE ESC**.
d. Verify that the **Off** checkboxes for both **Administrators** and **Users** are enabled.

4. Install the **Remote Desktop Services** role.

a. On the computer on which you want to install the **Remote Desktop Session Host** role service, open **Server Manager**.

- If the **Remote Desktop Services** role is not already installed:

i. Under **Roles Summary**, click **Add Roles**.
ii. On the **Before You Begin** page of the **Add Roles Wizard**, click **Next**.
iii. On the **Select Server Roles** page, select the **Remote Desktop Services** checkbox, and then click **Next**.
iv. Click **Next** again.
v. On the **Select Role Services** page, select the **Remote Desktop Session Host** checkbox, and then click **Next**.

- If the **Remote Desktop Services** role is already installed:

i. Under **Roles Summary**, click **Remote Desktop Services**.
ii. Under **Role Services**, click **Add Role Services**.
iii. On the **Select Role Services** page, select the **Remote Desktop Session Host** checkbox, and then click **Next**.

b. On the **Uninstall and Reinstall Applications for Compatibility** page, click **Next**.
c. On the **Specify Authentication Method for Remote Desktop Session Host** page, select the desired authentication method, and then click **Next**.
d. On the **Specify Licensing Mode** page, select the licensing mode that applies to your **Remote Desktop Services** environment, and then click **Next**.
e. On the **Select User Groups Allowed Access To This Remote Desktop Session Host** page, add any users or groups that you want to add to the **Remote Desktop Users** group, and then click **Next**.

> **Note:** You can add users at a later time, if necessary.

f. On the **Configure Client Experience** page, select the client experience that you want to provide, and then click **Next**.
g. On the **Confirm Installation Selections** page, verify that the **RD Session Host** role service will be installed, and then click **Install**. On the **Installation Progress** page, installation progress will be noted.
h. On the **Installation Results** page, you are prompted to restart the server to finish the installation process. Click **Close**, and then click **Yes** to restart the server. If you are prompted that other programs are still running, do either of the following:

- Click **Cancel** to close the programs manually and restart the server later.
- Click **Restart now** to automatically close the programs and restart the server.

i. After the server restarts and you log on to the computer with the same account, the remaining steps of the installation will finish. When the **Installation Results** page appears, confirm that installation of the **RD Session Host** role service succeeded.

5. Add a local user to the server.

a. In your **Server Manager**, go to **Configuration > Local Users and Groups > Users**.
b. Right click on **Users** and click **New User**.
c. Enter the appropriate information for the new user.
d. Provide a password for the local user.
e. Click **Create**, and then close the **New User** dialog window.
f. Go to **Configuration > Local Users and Groups > Groups**.
g. Double-click the group to which you want to add the user. Add the local user to the **Users**, **TS Web Access Computers**, and **Remote Desktop Users** groups.
h. Go to the directory where iMIS is installed, for example, **C:\Program Files (x86)\ASI\iMIS**, and give the local user **Modify** and **Write** access to all files in that directory. This will be the single Windows credentials account used to provide access to the Advanced Accounting Console from a browser.
i. Right-click and select **Properties > Security**.
ii. Click **Edit** to add a user and provide appropriate access rights.
iii. Click **OK**.
i. Grant **Modify** and **Write** privileges to all files and directories for the instance of the iMIS Desktop client that is specific to each unique local user.

6. Ensure that sufficient Remote Desktop Services connection Client Access Licenses (CALs) have been applied to the server to accommodate the total number of staff users expected to connect at any given time.
7. Install only the iMIS Desktop client. The default file location is **C:\Program Files (x86)\ASI\iMIS**. For more information, see Installing iMIS.

   > **Note:** Install or upgrade to the iMIS Application Server web components on a separate web server.

8. Log off from the server.
9. Log back in to the server using the new local user account.
10. Open Internet Explorer and let the browser perform the initial browser setup. This enables JavaScript processing which iMIS requires in the Advanced Accounting Console.

    > **Note:** In a multi-instance deployment of the iMIS Desktop client where multiple customers each have their own instance of the Desktop client on the same server, you must create a unique local user for each customer, for example, **ClientA** for CustomerA, **ClientB** for CustomerB, **ClientC** for CustomerC, and so forth.

11. Log off from the server.
12. Log in to the server again as an administrator.
13. Go to **Start > Administrative Tools > Remote Desktop Services** and run **Remote Desktop Session Host Configuration** as an administrator.
14. Right-click in the **Edit settings** area and select **Properties**. Ensure that the correct **General** settings are selected.
    - **Delete temporary files on exit**
    - **Use temporary folders per session**
    - **User logon mode** – **Allow all connections**
15. In the **Connections** area, right-click the name of the connection (**RDP-Tcp**), and then click **Properties**.

a. (**Sessions** tab) Select the first **Override user settings** checkbox on the dialog window, and set the following timeout settings:
- End a disconnected session – **1 minute**
- Active session limit – **Never**

- Idle session limit – **1 hour**

b. Select the second **Override user settings** checkbox.
c. Select the reconnection setting **End session**.
d. Click **OK**. Changes to timeout and reconnection settings are not applied to sessions that are connected when the change is made. The changes will take effect the next time the user establishes a new connection to the **Remote Desktop Session Host** server.

16. Go to **Start > Administrative Tools > Remote Desktop Services**, and then click **RemoteApp Manager**.
a. (**Overview** area) Click **Change** next to **RD Session Host Server Settings**.
b. (**RD Session Host Server** tab) Select the **Do not allow users to start unlisted programs on initial connection** radio button.
c. (**RD Gateway** tab) Select the **Do not use an RD Gateway server** radio button.
d. (**Common RDP Settings** tab) Select the **Printers** and **Disk drives** checkboxes in the **Devices and resources** section.
e. (**Common RDP Settings** tab) In the **User experience** section, select the **Allow font smoothing** checkbox, and select **Highest Quality (32 bit)** in the **Colors** drop-down.
f. Click **OK** and exit the dialog.
g. (**Actions** area) Click **Add RemoteApp Programs** to start the **Remote App Wizard**.
i. Click **Next**.
ii. In the list of available programs, select the **iMIS Desktop** checkbox.
iii. Click **Next**.
iv. Click **Finish**. **iMIS Desktop** is displayed in the list of **RemoteApp Programs**.
v. In the list of **RemoteApp Programs**, right-click on **iMIS Desktop** and select **Properties**.
vi. Select the **Allow any command-line arguments** option.
vii. Click **OK**.
viii. Click **Yes** at the **RemoteApp Wizard** security warning.

17. Make sure you can access iMIS Advanced Accounting Console as an administrator.
a. Go to **Start > ASI > iMIS**.
b. Right-click **iMIS Desktop** and select **Properties**.
c. (**Compatibility** tab) Select **Run this program as an administrator**.
d. Click **Apply** and then click **OK**.

18. You can use a SQL script (**UpdateAdminConsoleBlobParameters.sql**) to configure the Advanced Accounting Console content item. Go to the default install location to access the SQL script (**C:\Program Files (x86)\ASI\iMIS\cleandb\SampleScripts**).

    You must edit the SQL script to provide the following information which will be used by the Advanced Accounting Console content item.

- **Windows domain** – The domain in which the local user was created.
- **Server address** – The address of the server where the Advanced Accounting Console is hosted.
- **Windows username** – The local user.
- **Windows password** – The password for the local user.
- **Height** – The height of the displayed Advanced Accounting Console in the browser.
- **Width** – The width of the displayed Advanced Accounting Console in the browser.
- **Command line** – The standard location where iMIS Desktop is installed, by default. This location can be changed.
- **Working directory** – This is the standard location where the Omnis files are installed, for example, **C:\Program Files (x86)\ASI\iMIS**.

19. Configure your browser on your client.
20. After you configure your browser, go to your Staff site.
21. Set the navigation item to open the Advanced Accounting Console in a new window.
    a. Go to **RiSE > Site Builder > Manage sitemaps**.
    b. Select the **Staff** site from the drop-down, and go to **Commerce > Advanced Accounting Console**.
    c. (**Options** tab) Select **Open the link in a new window**.
    d. **Save** and **Publish**.
22. Set the navigation item to open the Advanced Accounting Console in a new window.
    a. Go to **RiSE > Site Builder > Manage sitemaps**.
    b. Select the **Staff** site from the drop-down, and go to **Commerce > Advanced Accounting Console**.
    c. (**Options** tab) Select **Open the link in a new window**.
    d. **Save** and **Publish**.
23. Republish your Advanced Accounting Console content item.

a. Go to **RiSE > Page Builder > Manage content**.
b. Select the Advanced Accounting Console content item (**@ > Core Content > Tools > AACPortal**).
c. Click **Publish**. Select the **Publish Working Items, Regenerate Published Items** option.
d. Select **Organize > Refresh** to verify the content has been republished.

24. Go to **Commerce > Advanced Accounting Console** to open the Advanced Accounting Console in your browser.

> **Note:** The first time you access the Advanced Accounting Console from the Staff site in Internet Explorer, you must agree to allow the webpage to run a **Remote Desktop Services ActiveX Client** add-on.

### Configuring the Client

For all three browser variants, verify they are installed, active, and updated to their latest updates or hotfixes. For more information about latest versions of the supported browsers, see the System requirements.

> **Note:** The first time you access the Advanced Accounting Console from the Staff site in Internet Explorer, you must agree to allow the webpage to run a **Remote Desktop Services ActiveX Client** add-on.

#### Adding the Server Domain as a Trusted Site in Internet Explorer

Your server domain must be added as a **Trusted Site** in Internet Explorer, regardless of which supported browser you use to display the Advanced Accounting Console.

1. In Internet Explorer, go to **Tools > Internet options**.
2. (**Security** tab) Select **Trusted sites**, and then click **Sites**.

> **Note:** Make sure the **Require server verification (https:) for all sites in this zone** checkbox is not selected.

3. Enter `http://<www.yourdomain.com>`, where `<www.yourdomain.com>` is the fully qualified domain name or IP address of the server.
4. Click **Add**, then click **Close**, and click **OK**.

5. Close out of Internet Explorer completely and restart the Internet Explorer browser to make the changes take effect.

**Configuring your Browser**

Internet Explorer 11

Configure Internet Explorer 11.

1. Download Microsoft's Enterprise Mode Site List Manager.
2. Install the **Enterprise Mode Site List Manager** on the client machine.
3. Open the **Enterprise Mode Site List Manager** and add the staff site root URL.

> **Note:** Ensure the Staff site URL is added as a **Trusted site** in Internet Explorer.

4. Select **File > Save to XML** to save the file to the client machine.
5. Enable **EnterpriseMode** on each end user's machine.

a. Open the **Registry Editor**. At a command prompt, type **regedit**.

b. Go to **HKEY_CURRENT_USER\Software\Policies\Microsoft \Internet Explorer-\Main\EnterpriseMode** or **HKEY_LOCAL_MACHINE\SOFTWARE\ Policies\Microsoft \Internet Explorer\Main\EnterpriseMode**.

> **Note:** You might have to add the **Main** and **EnterpriseMode** keys on non-Win8.1 machines. If you find the **EnterpriseMode** key displays the **Disable** name value, delete it and add the **Enable** name value instead. Next, add a string value named **SiteList** and set its data value as the location of the XML file you created and stored previously.

c. Close the **Registry Editor**. On the end user's computer, open Internet Explorer 11. Open the **Tools** drop-down, and you see **Enterprise Mode** as a checkable option near the top of the pull-down menu.

> **Note:** You do not need check **Enterprise Mode**, as Internet Explorer 11 will automatically do so when you go to the Staff site you specified in the **Enterprise Mode Site List Manager**.

d. Go to the Staff site. It will automatically render in Internet Explorer 8 mode.

e. Log in and click the **Advanced Accounting Console** link. A new browser window for the Advanced Accounting Console will open. You can then drag the new **Advanced Accounting Console** tab into the original browser for a single browser/side-by-side tab experience.

Configure Internet Explorer 11 on Windows 8.1.

1. Open a command prompt.
2. Enter **gpedit.msc** and press **Enter**.
3. In the **Local Group Policy Editor**, go to **User Configuration > Administrative Templates > Windows Components > Internet Explorer**.
4. Find **Let users turn on and use Enterprise Mode from the Tools menu** and double-click the option.
5. In the dialog window, click **Enabled**.
6. Click **Apply**, then click **OK** to accept the changes.
7. Close the **Group Policy Editor**.
8. Close all open Internet Explorer browser windows.
9. Open a new Internet Explorer browser window.
10. Press **Alt** on your keyboard and go to **Tools > Enterprise Mode**.

Firefox

To view the Advanced Accounting Console from a browser, an ActiveX control is required. For Firefox, this requires the installation of an IE Tab add-on.

1. In your Firefox browser, select **Open menu > Add-ons**.
2. Search for **IE Tab V2**.
3. Find **IE Tab V2 (Enhanced IE Tab)** in the search results, and click **Install**.
4. Restart your browser.
5. Select **Open menu > Add-ons > Extensions**. For the new **IE Tab 2** extension, click **Options**.
6. In the **Sites Filter** tab, ensure the **Enable Sites Filter** checkbox is checked and enter the following URL in the **Add** field:

```
/https?://<www.yourdomain.com>.*/iParts/Common/AdminConsole/AdminConsoleHost.aspx.*/
```

where <*www.yourdomain.com*> is the fully qualified domain name or IP address of the server.

7. In the **General Settings** tab, ensure the following options are enabled:
- **Tools Menu Item**
- **Tools Menu Icon**
- **Status Bar Icon**
- **Always use current engine to open a new URL**
- **Focus on the new tab when switching engines**
- **Run the plugin in the firefox.exe process (requires restart)**
8. In the **Context Menu** tab, ensure the following options are enabled:
- **Tabbar Tabs context menu shows following items:**
- **Switch rendering engine**
- **Open in Ext.App.**
- **Icon**
- **Content Area context menu shows following items:**
- **View Page in IE Tab**
- **View Page in Ext.App.**
- **Icon**
- **Personal bookmarks context menu shows following items:**
- **Open in IE Tab**
- **Open in Ext.App.**
- **Icon**
9. Click **OK**, and close Firefox.
10. Restart Firefox to make the changes take effect.

Chrome

To view the Advanced Accounting Console from a browser, an ActiveX control is required. For Chrome, this requires the installation of an IE Tab add-on.

1. Go to **Customize and control Google Chrome > More tools > Extensions**.
2. Click **Get more extensions**.
3. In the search field, enter **IE Tab**.
4. Find **IE Tab** in the search results.
5. Install the add-on and enable it.

6. Under **General Options** in the **IE Tab Options**, ensure the **Enable Auto URLs** and **Open pop-up windows with Chrome** checkboxes are checked.
7. Under **Auto URLs**, enter the following URL in the **Add** field:
   `r/https?://<www.yourdomain.com>.*/iParts/Common/AdminConsole/AdminConsoleHost.aspx.*`

   where `<www.yourdomain.com>` is the fully qualified domain name or IP address of the server.
8. Click **Add**.
9. Close Chrome.
10. Restart Chrome to make the changes take effect.

## Creating a custom theme

Themes control many of the aesthetic elements of your website, such as fonts and colors. To create a personalized theme for iMIS, we recommend you copy one of our out-of-the-box themes and customize it to fit your organization's needs. If you, however, want greater creative control over the look and feel of your website, you can build a new theme.

When you create a new theme, it must contain the following required elements:

- CSS files
- A ThemeSettings.xml file with a reference to the UltraWave style sheet
- A .skin file (one or two is best)
- Required images

You will save all of your custom theme's required elements to your theme folder located in **~/App_Themes**. Then, to use the new theme in a specific website, you must select the theme in the Look and Feel definition of the website.

### Required elements of a custom theme

When you create a new theme, it must contain CSS files, a **ThemeSettings.xml** file, a .skin file, and required image files.

Theme CSS files

The theme CSS files control the styles displayed within your website. It is easiest to start from a copy of another theme's CSS files, but you also have the option to build your own. When designing your custom CSS, test thoroughly to confirm you include the selectors required for iMIS to display as you prefer.

To learn more about CSS, visit www.w3schools.com.

---

A ThemeSettings.xml file

The required base style sheet, UltraWave, is dynamically included in any theme based on its **ThemeSettings.xml** file. To ensure these styles are included in your theme, add a **ThemeSetting.xml** file to your theme folder with content similar to the following example except replacing **[ThemeName]** with your theme's name.

**Example:**

```
<?xml version="1.0" encoding="utf-8" ?>
<ThemeSettings ThemeID="[ThemeName]" UltrawaveBased="True">
</ThemeSettings>
```

If your theme is responsive, also include the property **Responsive="True"** in your theme settings.

**Example:**

```
<?xml version="1.0" encoding="utf-8" ?>
<ThemeSettings ThemeID="Austin_Responsive" UltrawaveBased="True" Respons-
ive="True">
</ThemeSettings>
```

---

A .skin file

Skin files contain property settings for controls such as buttons, labels, and grids. Each theme must have a skin file that includes several required elements so that these controls render correctly in your website. We recommend that you start with a copy of one of our

theme's **.skin** files and customize it as needed (each theme folder within **/App_Themes** contains skin files you can use for this purpose). When you upgrade, you should compare your theme's **.skin** files with those in a provided theme. Be sure to copy over any missing lines.

Required images

There are several images required for a theme to display properly, including images for icons, user messages, and other elements. Many of the required images are referenced in the **.skin** files. We recommend that you copy an **images** folder from one of the existing themes into your custom theme folder. You can replace or edit any of these images according to your needs.

**Making a custom theme available in iMIS**

r custom theme accessible from RiSE, you must save its required elements to the **~/App_Themes** folder.

1. Navigate to **C:\Program Files (x86)\ASI\iMIS\Net\App_Themes.**
2. Add a new theme folder to the **App_Themes** folder.
3. Save your custom theme's CSS files,**ThemeSettings.xml** file, .skin files, and image files to this folder.

**Using a custom theme in your website**

To use your new custom theme, you must apply it to a website.

1. Navigate to **RiSE > Site Builder > Manage websites**.
2. Select the website that you want to use the custom theme.
3. (**Look and Feel** tab) Select your custom theme as the **Theme (colors, fonts, etc.) to use for the site's "look and feel"**.
4. **Save** your changes.

To learn more about themes and customizing your website, you can read the following articles:

- Using Quick Start Sites
- Using sample themes and Master Pages

## Creating an iMIS Application Shortcut with Google Chrome

1. Follow the instructions below to view your iMIS site without the address bar or tabs at the top of your browser window:
2. Open Google Chrome and navigate to your iMIS Staff site.
3. click on the Customize and control Google Chrome options button ☰ (located to the right of the address bar).
4. Select Tools > Create application shortcuts.
5. A screen should appear with a selection of locations for this application shortcut. Click Create.
6. The application shortcut to the iMIS site will be available from the desktop or task bar.
7. Now when you open the iMIS application shortcut, the browser window will direct you to the iMIS site and will no longer display the address bar or tabs.

## Enabling CAPTCHA Security

iMIS uses CAPTCHAs for security when users have forgotten their username or password. CAPTCHA is a program that can generate and grade tests that humans can pass but current computer programs cannot. For example, humans can read the distorted text below, but computers cannot.



Do the following to enable CAPTCHA security:

1. Create an account with reCAPTCHA.
2. Follow reCAPTCHA's instructions to create your **Public** and **Private** keys.
3. On your production iMIS appserver host, open the web.config files for each iMIS application. The iMIS default location is **C:\Program Files\ASI\iMIS\Net**.
4. In the web.config file, add the **Public** and **Private** keys generated by reCAPTCHA to the values of the following entries:

```
<add key="RecaptchaPublicKey" value=""/>
<add key="RecaptchaPrivateKey" value=""/>
```

5. Save the files. CAPTCHA security is now enabled.

## Implementing advanced website navigation features

In addition to creating your navigation items and sitemap in RiSE, you can further tailor your site's navigation by implementing advanced navigation features,such as left navigation, mega drop-downs, and using image sprites for navigation items. To add these features, you will need to edit your site's theme and master page.

### Displaying left navigation

You can display website left navigation in a hierarchical format with a few changes to your theme’s master page and skin file.

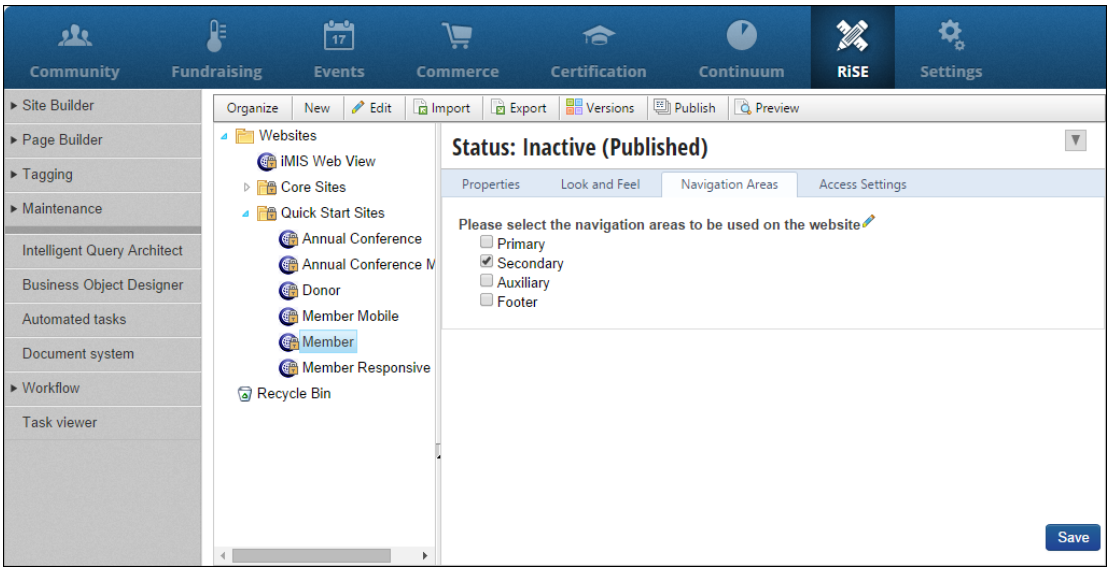
Click to view image




1. In the Staff site, go to **RiSE > Site Builder > Manage websites**.
2. Define how many levels of navigation to display.

a. Select the website.
b. Select the **Navigation Areas** tab and select the **Secondary** navigation area.
c. Save and publish your changes.

Click to view image




3. Edit the website theme's master page.

- Using your preferred text editor, find and open the website theme's master page. Master pages, by default, are located in **C:\Program Files (x86)\ASI\iMIS\Net\Templates\MasterPages**.
- Register the control by adding the following line to the top of the master page, just below the other registered controls:

```
<%@ Register TagPrefix="asi" TagName="SubNavigation" Src-
c="~/AsiCommon/Controls/Navigation/SubNavigation.ascx" %>
```

- Add the following scripts to the <script language="C#" runat="server"> section:

```
protected override SiteMapNode GetStartingNode()
{
    return Secondary.GetStartingNode();
}
protected override SiteMapNode GetCurrentNode()
{
    return Secondary.GetCurrentNode();
}
```

- Find the **masterSideBarPanel** div. It should look like this:

```
<div id="masterSideBarPanel" class="yui-b">
    <asp:ContentPlaceHolder ID="SideBarPlaceHolder" runat="server">
    </asp:ContentPlaceHolder>
</div>
```

- Update the **masterSideBarPanel** div so that it contains the following:

```
<div id="masterSideBarPanel" class="yui-b">

    <asp:Panel ID="SubNavPanel" runat="server" >
            <asp:ContentPlaceHolder ID="PageSubNavigationPlaceHolder" runat="server">
            <asp:Panel id="SubNavHead" runat="server" class="SubNavigationHead">
            <asp:Literal ID="SubNavPanelTitle" runat="server" />
            </asp:Panel>
            <asp:Panel id="SubNavBody" runat="server" class="SubNavigationBody">
            <asi:SubNavigation id="Secondary" runat="server" NavigationPaneCode="2"
                StartingNodeOffset="1" StartFromCurrentNode="true"
                StartingNodeOffsetAutoSet="true" SelectDefaultNode="false" />
            </asp:Panel>
            </asp:ContentPlaceHolder>
        <asp:ContentPlaceHolder ID="SideBarPlaceHolder" runat="server" />
    </asp:Panel>

</div>
```

- Find the **masterWrapper** div, and add the **yui-t2** class to it:

```
<div id="masterWrapper" class="yui-t2">
```

- To improve JavaScript performance for websites using hierarchical sub-navigation, find the following script:

```
<script type="text/javascript">
    // if there is something in the side bar this converts the layout to 2 columns
    if ($('masterSideBarPanel').children.length != 0) {
```

```
            $('masterWrapper').setAttribute("class", "yui-t2 HasSubNav");
        }
    </script>
```

- Update that script to the following:

```
<script type="text/javascript">
    // if there is something in the side bar this converts the layout to 2 columns
    if ($('masterSideBarPanel').children.length === 0) {
        $('masterWrapper').removeAttribute("class");
    }
</script>
```

4. Edit the website theme's skin file

- Using your preferred text editor, find and open the website theme's skin file (for example **Aspen.skin**). Skin files, by default, are located in the theme folders within **C:\Program Files (x86)\ASI\iMIS\Net\App_Themes**.
- Register the control by adding the following line to the top of the skin file, just below the other registered controls:

```
<%@ Register TagPrefix="asi" TagName="SubNavigation" Src-
c="~/AsiCommon/Controls/Navigation/SubNavigation.ascx" %>
```

- Just below the section registering controls, add the following line:

```
<asi:SubNavigation runat="server" Skin="Aspen" EnableEmbeddedSkins="false" SingleEx-
pandPath="true" ShowLineImages="false" />
```

- (optional) If you are familiar with skin controls, you can configure how the **SubNavigation** control behaves using the following properties:
  - string **NavTreeSkinId** – A unique ID for the skin if needed. The default is *RadTreeView.*
  - bool **SingleExpandPath** – Gets or sets a value indicating if only the current branch of the tree is expanded. The **SingleExpandPath** property, when set to **True**, automatically collapses nodes that are not on the path of the currently expanded node. Use the **SingleExpandPath** property when you need to conserve screen space and make navigating

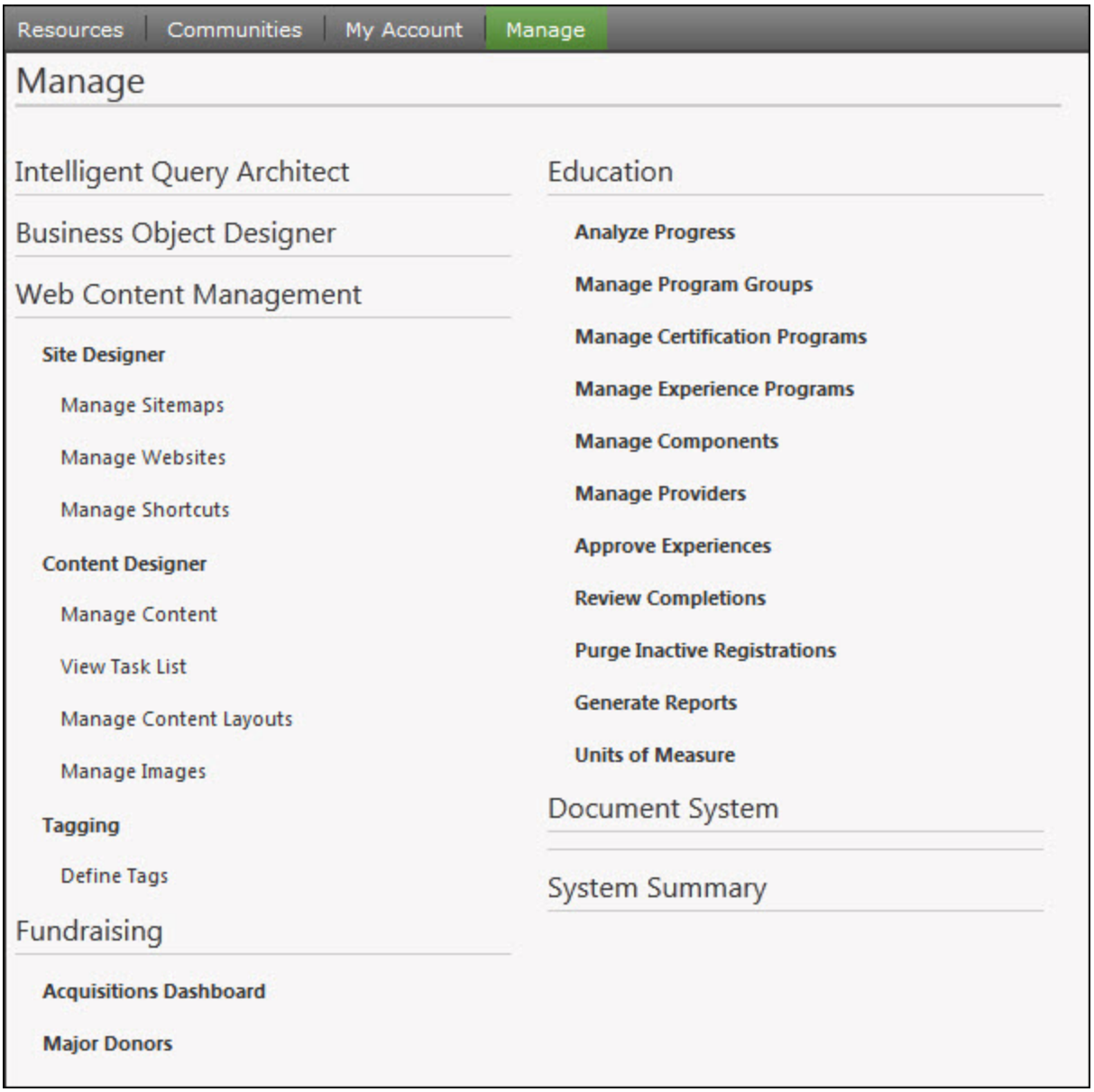
nodes easier.

- public bool **ShowLineImages** – Gets or sets a value indicating if the tree node line images display or not.
- string **Width** – Gets or sets width of the control. Specify in pixels (px) or percentage (%), such as 500px or 90%.
- bool **EnableEmbeddedSkins** – Gets or sets a value indicating if the built in skins should be used on the navigation tree.
- int **MaxDataBindDepth** – Gets or sets the maximum number of levels to bind to the navigation tree.
- bool **WrapNodeText** – Gets or sets the option to wrap text if it is wider than the trees allowed width.
- bool **ExpandAllNodes** – Gets or sets the option to expand all of the nodes when the navigation tree renders.

**Displaying mega drop-downs**

You can display mega drop-downs from your primary navigation with a few changes to your theme's skin file and menu CSS. Mega drop-downs display navigation items within large panels, grouped by level, which reduces scrolling and improves the usability of site navigation.

Click to view image




Implementing mega drop-downs

1. Ensure that each parent navigation item or its first child in the sitemap has a value for **Content or URL to Link to**. Otherwise, the navigation hierarchy may not render properly.
2. Edit the website theme's skin file:

- Using your preferred text editor, find and open the website theme's skin file (for example, **Austin.skin**). Skin files, by default, are located in the theme folders within **C:\Program Files\ASI\iMIS\Net\App_Themes**.
- Find the **pageNavR** control and update it to add the following property:

```
EnableMegaDropDownMenu="true"
```

- (optional) If you are familiar with skin controls, you can configure how the mega drop-down behaves by altering the following properties:
  - **EnableMegaDropDownMenu** – Enables the mega drop-down.
  - **MegaDropDownMenuShowStartingNode** – Displays the parent navigation node as the first item in the mega drop-down. Enter **true** or **false**.
  - **MegaDropDownMenuLevelSettingLevel** – This property sets specified menu nodes per level with a default per level of "**1**", and a minimum per level of "**1**". This property defines the navigation level at which the number of columns set for **MegaDropDownMenuRepeatColumns** starts to take effect. For example, if you set **MegaDropDownMenuRepeatColumns="3"** and set **MegaDropDownMenuLevelSettingLevel="2"**, then the mega drop-down displays three columns for the second navigation level and higher, and the first level has one column only.

    **Note:** For out-of-the-box responsive themes, your navigation will not show in the responsive site mega drop-down if you have more than three levels of navigation. However, they will be displayed in the secondary navigation.

  - **MegaDropDownMenuRepeatColumns** – Defines the number of columns used to display the navigation. This property sets the number of display columns for the mega drop-down menu's specified number of columns (default is "**2**", minimum is "**2**").
  - **MegaDropDownTooltipLocation** – This option only applies to tooltips defined for top-level navigation items in the primary navigation. When defined, it specifies the location of the tooltip text if a tooltip is defined for that navigation item. Enter either **Menu** (displays the tooltip directly beneath the top-level navigation item) or **Append** (displays to the right of the navigation text within the drop-down). If you do not define this property, navigation tooltips are not displayed in the drop-down.
  - **MegaDropDownMenuRepeatDirection** – This property sets the mega drop-down menu repeat direction and determines the order in which items are rendered as either **Horizontal** or **Vertical** (default is **Vertical**). If set to **Vertical**, the items display in columns

loaded from top to bottom, then left to right, until all items are rendered. If set to **Horizontal**, the items display in rows loaded from left to right, then top to bottom, until all items are rendered.

3. Edit the theme's menu CSS to tailor the display of the mega drop-down for the theme's look and feel.

- Using your preferred text editor, find and open the website theme's menu CSS file (for example **Menu.Aspen.css**). Menu CSS files, by default, are located in the theme folders within **C:\Program Files\ASI\iMIS\Net\App_Themes**.

> **Note:** The styling for the **Austin** drop-downs are included in **99-Austin.css**.

- Find the **MegaDropDownMenu Styling** section and edit the styles as needed:

```
/* ############################ */
/*  MegaDropDownMenu Styling  */
/* ############################ */

.RadMenu .rmGroup .MegaDropDownMenuOuter .rmText {
	padding: 0;
	margin: 0;
	width: 600px !important;
}

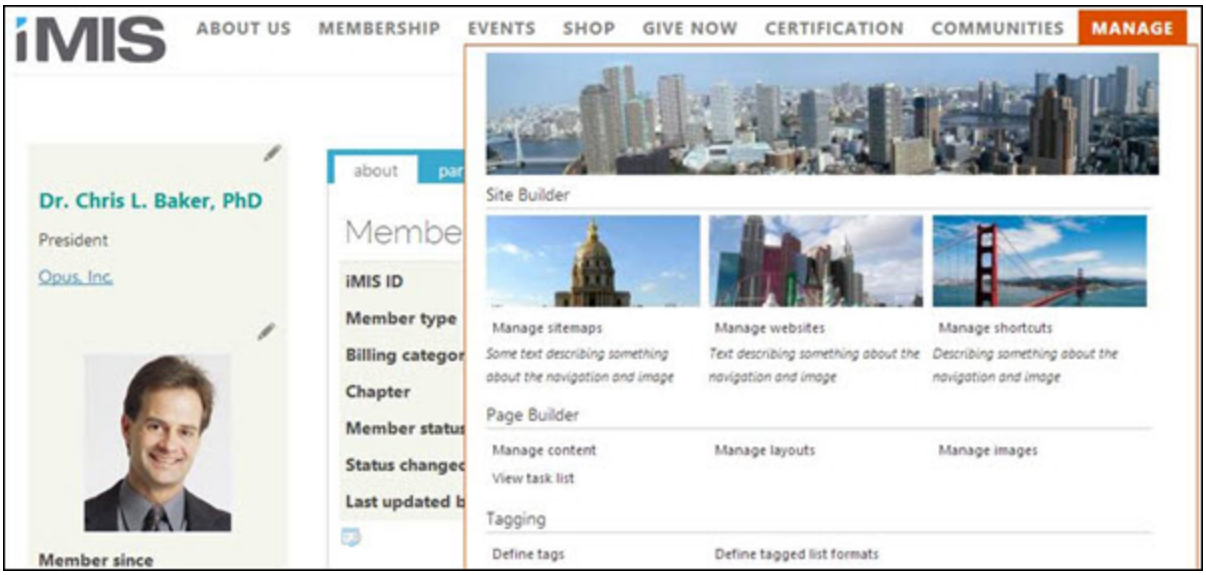
div.MegaDropDownMenu
{
	background-color: #f8f7f7;
	padding-left: 5px !important;
	padding-right: 5px !important;
}

.MegaDropDownMenuToolTip
{
	padding: 5px;
}
```

Styling mega drop-downs

You are able to make changes to the layout and look of your mega drop-downs. You can add control properties in the .skin file, and you can add custom CSS classes.

For example, you could style your mega drop-down to look like the following:




To create a mega drop-down that looks like this, you would first set the control properties in the **pageNavR** control in the .skin file. For example, for the **Austin** theme, you would edit the **Austin.skin** file:

```
<asi:PageNavR runat="server" Skin="Austin" EnableEmbeddedSkins="false"
EnableRootItemScroll="false"
    Flow="Horizontal" DefaultGroupSettings_Flow="Vertical"
    DefaultGroupSettings_OffsetX="0" Width="100%"
    EnableMegaDropDownMenu="true"
MegaDropDownMenuShowStartingNode="false"
MegaDropDownMenuLevelSettingLevel="0"
MegaDropDownMenuRepeatColumns="3"
MegaDropDownTooltipLocation="Append"/>
```

Next, add custom CSS classes to the **99-Austin.css** file:

```
.SiteBuilderNode:before {
        padding-right: 5px;
```

```
        content: url(http://lorempixel.com/output/city-q-c-550-100-5.jpg);
}

.ManageSitemapNode:before {
            padding-right: 5px;
        content: url(http://lorempixel.com/output/city-q-c-175-75-6.jpg);
}

.ManageSitemapNode:after {
            padding-right: 5px;
            font-style: italic;
            float:right;
        content: "Some text describing something about the navigation and image";
}

.ManageWebsitesNode:before {
            padding-right: 5px;
        content: url(http://lorempixel.com/output/city-q-c-175-75-3.jpg);
}

.ManageWebsitesNode:after {
            padding-right: 5px;
            font-style: italic;
            float:right;
        content: "Text describing something about the navigation and image";
}

.ManageShortcutsNode:before {
            padding-right: 5px;
        content: url(http://lorempixel.com/output/city-q-c-175-75-9.jpg);
}

.ManageShortcutsNode:after {
            padding-right: 5px;
            font-style: italic;
            float:right;
```

```
        content: "Describing something about the navigation and image";
}
```

### Using image sprites for navigation items

A sprite is a collection of images combined into a single image. Using CSS, you can shift the image around to display only parts of it. The advantage of using sprites is that they reduce the number of server requests to load images (only one is loaded), leading to improved performance.

One way to use sprites in iMIS is for rollover effects on navigation items.

1. Edit the website theme's skin file.

- Using your preferred text editor, find and open the website theme's skin file (for example **Aspen.skin**). Skin files, by default, are located in the theme folders within **C:\Program Files (x86)\ASI\iMIS\Net\App_Themes**.
- Find the **pageNavR** control and update it to add the following property:

```
EnableImageSprites="true"
```

When enabled, a new class named **rmLeftImage** is added to root level links in **PageNavR**.

2. Create the sprite file.

- Using an image editor like Adobe Photoshop, or a free alternative like GIMP, create your sprite by adding the images you want to a single image, like the following:



- Save the sprite to the website theme's image folder.

3. Edit the theme's **99-[theme].css** file to define the classes to control the sprite.

- Use a tool like SpriteCow to determine the position values of the images in the sprite.
- Using your preferred text editor, find and open the website theme's **99-[theme].css** file, located by default in the theme folders within **C:\Program Files (x86)\ASI\iMIS\Net\App_Themes**.
- Add styles for the sprite. For example:

```
.RadMenu a.rmRootLink.CartLink .rmLeftImage
{
    Background-image: url(images/cartsprite.png);
    Background-repeat: no-repeat;
    Background-position: -1px -1px;
    Width: 48px;
    Height: 36px;
}
.RadMenu a.rmRootLink.CartLink:hover .rmLeftImage, .RadMenu
a.rmRootLink.CartLink.rmExapnded .rmLeftImage,
.RadMenu a.rmRootLink.CartLink.rmFocused .rmLeftImage
{
    Background-position: -1px -39px;
}
```

  The first group of selectors sets the resting position for the image sprite. The second group of selectors defines the hover state and shifts the image when the link is rolled over.

4. In the Staff site, go to **RiSE > Site Builder > Manage websites**.
5. Apply the sprite class to the appropriate navigation items.

- Edit the navigation item for which you want to apply the sprite hover effect (for example, the **Shop**).
- For the **CSS Class** property, enter the sprite class (for example, **CartLink**).
- **Save** and **publish** the navigation items.

*See also*

- Using sitemaps
- Using sample themes and Master Pages
- Creating a custom theme

### Signing in to your website using a social media account

You can allow website users to sign in to your website using their Facebook accounts. Social media integration creates a seamless user experience that increases convenience and satisfaction for your users. Users' social media accounts are linked to their existing iMIS accounts, and when a new user signs in with a social media account, a new iMIS account is automatically created and linked. Eliminating the need for users to keep track of multiple usernames and passwords will result in more visits to the essential content on your website!

Information copied to iMIS from Facebook when a user links the accounts

When a user first signs in to iMIS with a Facebook account, certain information from Facebook is conveniently copied into their iMIS account.

| Info Copied to an *Existing* iMIS Account | Info Copied to a *New* iMIS Account |
|---|---|
| Gender<br>Facebook profile link is set in the Social Profile List Creator content item (if not already defined)<br>Facebook profile picture (if the user chooses to use the picture in iMIS) | • First name<br>• Last name<br>• Email Address<br>• Email address is used as the iMIS username<br>• Gender<br>• Facebook profile link is set in the Social Profile List Creator content item<br>• Facebook profile picture (if the user chooses to use the picture in iMIS) |

Allowing users to sign in to iMIS with Facebook credentials

To integrate your websites with a social medial network, navigate to **Settings > Contacts > Social media**.

1. In the **Authorization Providers** table, add a new provider.

- Specify the **Provider**.

> **Note:** Facebook is the only authorization provider that you can use with iMIS at this time.

- Enter the **App Id** and **App Secret** you received from the **Provider** when you created your app. See Creating a Facebook authorization provider app for more information.
- Enable the provider to display a button in the Contact Sign In content item that allows website users to sign in with a social media account from the provider.Enabling a provider also allows:
  - You to configure any Contact Account Creator on your site to allow users to sign up with a social media account.
  - Users, when updating their profile photo in the Contact Profile Picture content item, to use their Facebook profile photo on your website (if Facebook is the enabled provider).

2. (optional) To prompt users to link their social media and iMIS accounts the first time they attempt to sign in with a social media account, confirm that **Prompt to link social media account to an existing or new iMIS account** is selected. An additional window displays the first time users sign in with a social media account, prompting them to enter their iMIS username and password. A user can also choose to use their Facebook profile photo as their profile photo on your website during the linking process.

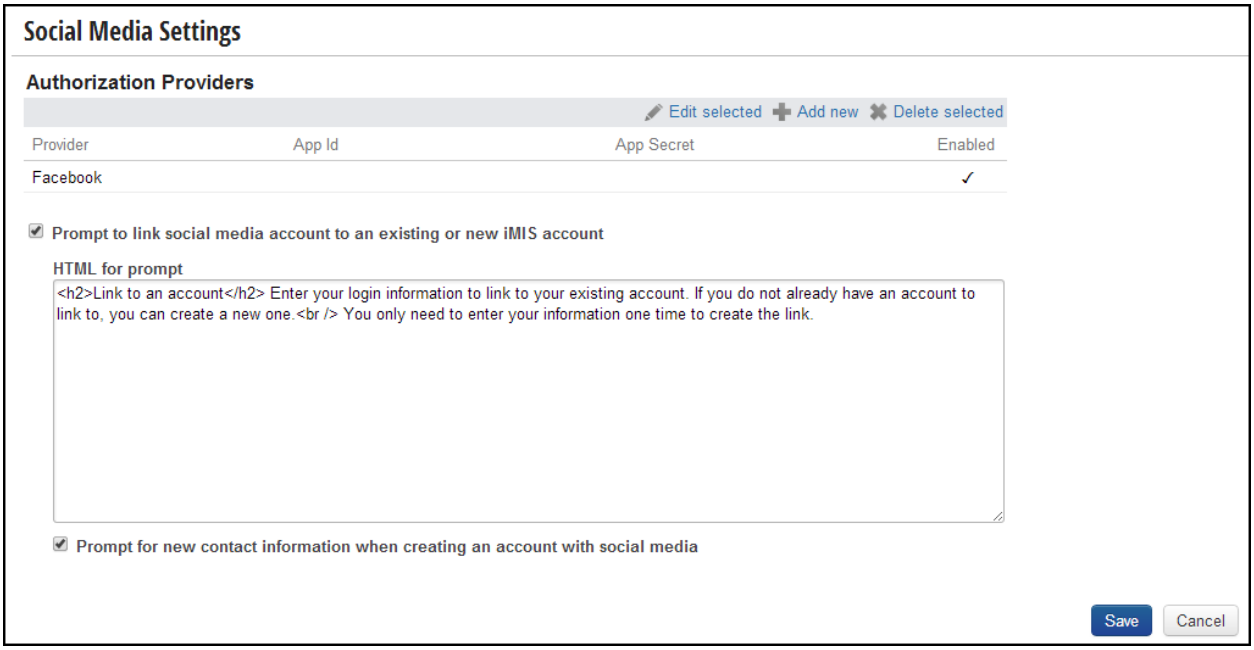
> **Note:** If you do not prompt users to link their social media and iMIS accounts, a new contact is created and linked. Since users do not see a visual prompt to link to an existing iMIS account, there is an increased chance for creating duplicate contacts when users use different email addresses for the social media and iMIS accounts. However, if a user uses their Facebook email with their iMIS account, they will still be prompted to link to the existing account instead of creating a new account.

- (optional) If you prompt users to link their social media and iMIS accounts, you can tailor the **HTML for prompt** or use the default message.

3. (optional) If you want users who choose to link to a new iMIS account to enter additional contact information in a Contact Account Creator content item, select **Prompt for new contact information when creating an account with social media**.

> **Note:** When you prompt users to enter new contact information when creating an account with social media, users are directed to the content at the **CreateAccountSocialMedia** shortcut. This content contains a Contact Account Creator out-of-the box, but it can be modified. The Contact Account Creator in this content, however, must always be configured to include an option to create an account.

Click to view image




Creating a Facebook authorization provider app

To obtain an App Id and an App Secret from Facebook, complete the following steps:

1. Register as a Facebook developer.
2. Create a new app.
3. Enter the requested information and create the app.
4. In the **Basic Settings**, add a website platform, enter the URL for your website, and save.

- An **App ID** and **App Secret** are automatically assigned. You will need to enter these items as Social Media Settings in the iMIS Staff site.

5. In the **Advanced Settings**, enable **Client OAuth Login** and save.
6. In the **App Details**, enable **Website** as a listed platform, configure the App Center for **email**and **user_location** as permissions, and save.
7. In **Roles**, add test users and save.

> **Note:** You need test users because regular Facebook users cannot use your app until it is officially live.

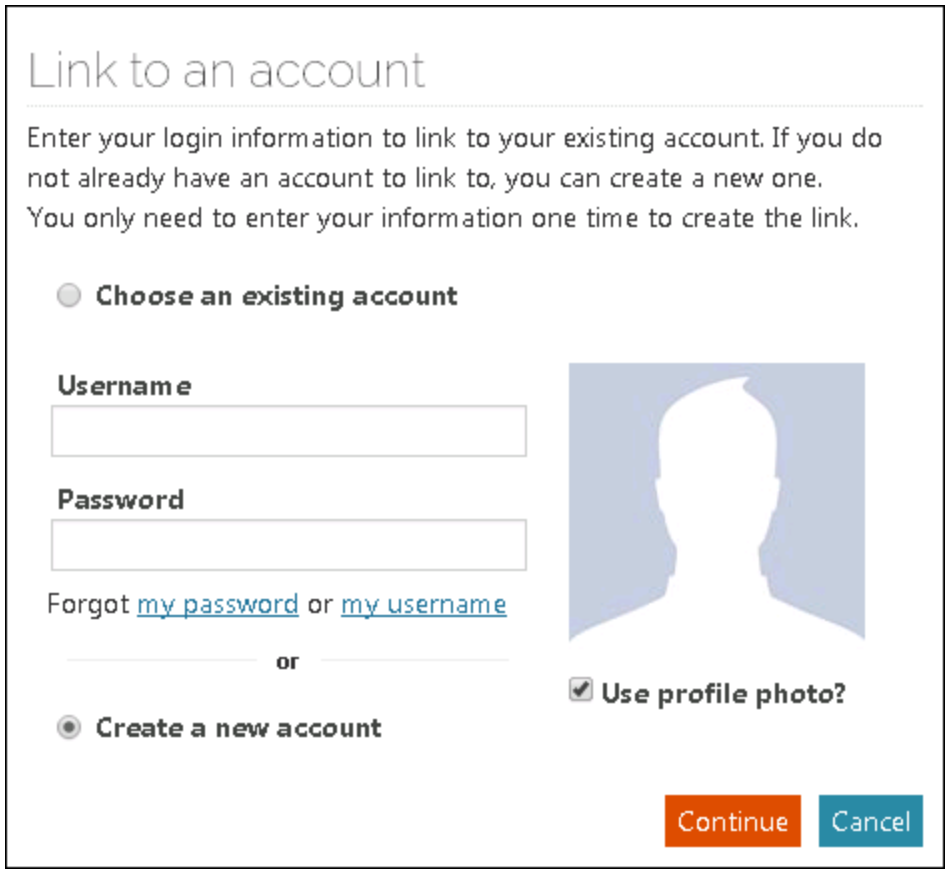
You can find your **App Id** and **App Secret** in the dashboard or basic settings.

Signing in with Facebook

When a user signs in to your website for the first time using their Facebook credentials, they are prompted to link their iMIS and Facebook accounts. They can **Choose an existing account** or **Create a new account**.

You can use the default message for the user prompt or enter a message tailored to your organization in the social media settings.

Click to view image



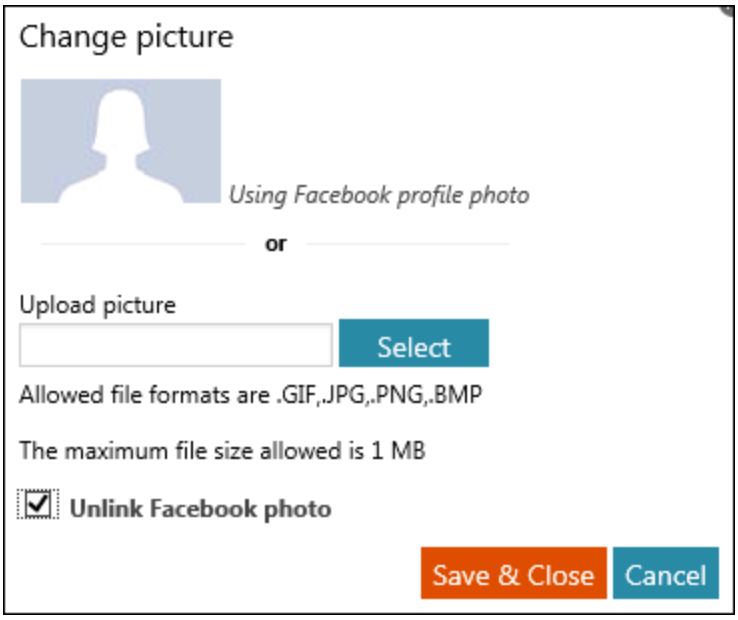

In the user prompt, a user can choose to use their Facebook profile photo as their profile photo on your website. If a user makes this selection, their iMIS profile photo is updated with their current Facebook profile photo every time they sign in to your website with their Facebook account.

If the user later decides they do not want to use the Facebook profile photo in iMIS, they can unlink the Facebook photo in the Contact Profile Picture content item on their profile page. Also, a user who is not linked to their Facebook account can choose to use their Facebook profile photo as their iMIS profile photo in the Contact Picture Profile content item. This action will link the iMIS and Facebook accounts.

**Note:** If a user enters their Facebook password incorrectly three times in the Contact Picture Profile content item, iMIS will not use the Facebook profile photo and the Facebook and iMIS accounts are not linked. Instead, the user is redirected

to a Facebook page where they can try to enter the password again or reset the password.

Click to view image




You can choose not to prompt users to link their iMIS and Facebook accounts by deselecting **Prompt to link social media account to an existing or new iMIS account** in the Social Media Settings at **Settings > Contacts > Social media**. In this scenario, a new iMIS account is automatically created for the user and linked to their Facebook account. If the email associated with their Facebook account is also associated with an iMIS account, the user is prompted to enter their iMIS credentials.

**Note:** Although deselecting the **Prompt to link social media account to an existing or new iMIS account** option creates a more seamless user experience, it results in duplicate iMIS accounts when a user with an existing iMIS account uses a different email address for their Facebook account.

Choosing an existing account to link

Users choosing to link to an existing iMIS account must enter their usernames and passwords, reducing the number of duplicate accounts.

Creating a new account to link

If a user chooses to create a new account, a new iMIS account is automatically created for them and linked to their Facebook account. If the email address used for Facebook matches an email associated with an iMIS account, they are prompted to enter their iMIS username and password.

If you would like to gather additional information about users who create new accounts, you can configure iMIS to prompt the user to enter additional contact information. In the Social Media Settings at **Settings > Contacts > Social media**, select **Prompt for new contact information when creating an account with social media**. This option redirects users to the content at the **CreateAccountSocialMedia** shortcut, which when used out-of-the-box contains a Contact Account Creator content item where users can fill in additional contact information. You can modify the content at this shortcut, but in order to link the iMIS and Facebook accounts, the Content Account Creator must be configured to include an option to create an account.

When signing in with Facebook is enabled in the social media settings, you can also configure any Contact Account Creator content item on your site to allow users to sign up using Facebook.

> **Note:** If a website user denies Facebook email permissions to the iMIS app, they will not be able to log in to iMIS using Facebook. They can grant email permissions to the iMIS app in their Facebook account's App Settings.

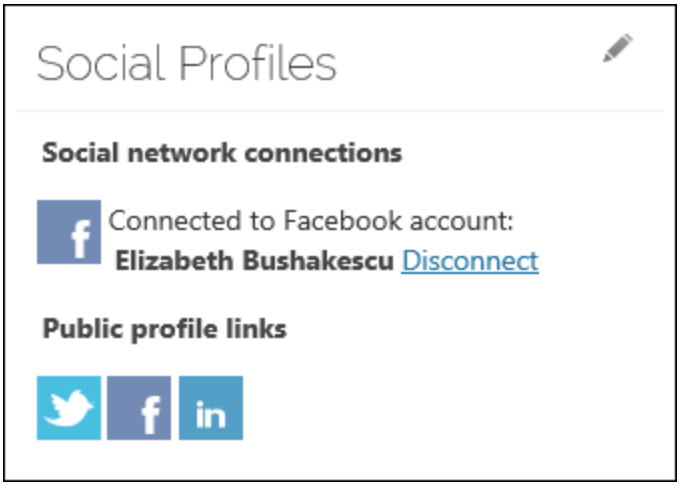
Disconnecting an iMIS account from a Facebook account

A user can disconnect their iMIS account or the account of any user they have permission to edit from a Facebook account. Disconnecting unlinks the two accounts and removes all previously granted permissions to Facebook.

1. In the **Social network connections** section on the user's account page, choose to **Disconnect** the connected Facebook account. You can also **Disconnect** when editing the information.
2. Save your changes.

> **Note:** Social network accounts associated with the user's account display in the Social Profile List Creator content item. The **Social network connections** section only displays in the content item on the account page if that iMIS account is currently linked to a social media account and the user viewing the account has permission to edit it.

Click to view image




If the user attempts to sign in with Facebook again, they are prompted to grant permissions and link their iMIS and Facebook accounts.

### Tailoring the staff account page

iMIS provides a Staff Account Page with content records displayed in a tabbed format. These content records are stored in a system-protected folder (**@/iCore/Contacts/ContactLayouts/Staff/Tabs**) and are subject to being overwritten during an upgrade.

If your organization wants to display custom content records on the Staff Account Page, a staff user can place those content records in a shared folder (**@/Shared_Content/Staff/Tabs**) that will not be overwritten during an upgrade. You can also copy an existing content record from a system-protected folder to the shared folder.

Copy all of the tabs from the **@/iCore** folder to the **@/Shared_Content** folder even if you only need to edit a single tab. When you copy one tab, only that specific tab will show.

The display order of tabs is sorted in alphabetical or numerical order by the content record **Publish file name**. For example, if you have two content records and the Publish file names are **2Creator** and **1Record**, **1Record** will be displayed in the first tab before **2Creator**.

> **Note:** Numerical items have precedence for display order.

The label for each tab is the **Title** for each content record.

An alternate method for tailoring the Staff Account Page is to copy the page and modify its system shortcut. First, copy the page (**Account Page Staff** located at **@/iCore/Contacts/ContactLayouts**), and save the new content record in a **Shared Content** folder. Make any desired changes in your version of the content record. Then, edit the **FullAccount** shortcut (used for **All Sites**) to point to your modified content record. If you use this method, you should check the system Staff Account Page after upgrades for new features that you might want to include on your version of the page.

### Tailoring the Staff site

You can tailor many aspects of your out-of-the-box Staff site without worrying that your changes will be overwritten on upgrade. Items that will be overwritten during an upgrade that you want to tailor can be copied and any needed modifications made to the copy.

There is typically no need to copy the Staff site. In most cases, you can use the out-of-the-box Staff site and tailor it to your specific needs.

| Items saved at upgrade | Items overwritten at upgrade |
|---|---|
| Shortcuts | • IQA queries |
| New navigation items | • System navigation items |
| Original content (Shared Content) | • System content items (Core Content) |
| New communication templates | • System communication templates |
| New business objects | • System business objects |

Tailoring content using shortcuts

Shortcuts that you can edit are not overwritten during an upgrade. Core content navigation items, however, are overwritten on upgrade. To tailor certain system content on your website, you can make a copy of the content and simply point existing shortcuts to the new content records. For example, several key Staff site navigation items use shortcuts, so you can point to tailored versions of Staff site pages by changing which content record the shortcuts use.

Before editing out-of-the box shortcuts, you should review the shortcut descriptions to identify system content which uses a shortcut. Examples include the account pages (including the staff account page), the staff event dashboard for a specific event, and the content used when adding a contact from various contexts. The majority of the shortcuts used in the Staff site are listed as **All Sites** shortcuts.

New shortcuts that you create are also preserved during an upgrade.

> **Note:** Non-editable shortcuts, such as the ones used for the Member site, may be overwritten on upgrade.

Business example: Print Info button on the staff account page
For example, the **Print Info** button on the staff account page, which displays a printable SSRS report with account information, uses the **PrintProfile** shortcut by default. If you edit the **PrintProfile** shortcut, so that it points to your tailored content (in the **Shared Content** folder), this change will not be overwritten during an upgrade. After the upgrade, clicking the **Print Info** button will still send users to the content you configured the shortcut to use.

Business example: Community dashboard
The Community, Fundraising, Events, and Commerce areas in the Staff site each offer a quick-view dashboard that summarizes information that is important to your organization. The navigation items for these top-level dashboards use default shortcuts to point to the dashboard content records. If you want to edit one of these dashboards, you can copy and modify the existing content record or create a new content record and edit the shortcut to use your version of the content.

After an upgrade to a new version of iMIS, the dashboard navigation will continue to use your new content since shortcuts that you can edit are not overwritten.

This example describes the process of updating the Community dashboard by editing its shortcut, **StaffCommunityLanding**, to use your tailored version of the dashboard.

1. In the Staff site, go to **RiSE > Page Builder > Manage content**.
2. Navigate to **@/iCore/Staff_Dashboards**.
3. Open and edit the **Contacts Dashboard** content record as needed.
4. Click **Save As** and select a location in the **Shared Content** folder. You can rename the content if desired.
5. Save and publish the modified content record.
6. > **Note:** If you prefer, you can create a new content record instead of modifying the existing content.

6. To edit the **StaffCommunityLanding** shortcut, go to **Rise > Site Builder > Manage shortcuts**.

a. Find and edit the **StaffCommunityLanding** shortcut for **All Sites**.

b. Select your version of the content record as the **URL or Content Record** used by the shortcut.

c. Save the shortcut.

You can edit the following Staff site shortcuts which are used by system navigation items:

- **StaffCommunityLanding** which is used by the **Community > Dashboard** navigation item.
- **StaffFundraisingLanding** which is used by the **Fundraising > Dashboard** navigation item.
- **StaffEventsLanding** which is used by the **Events > Dashboard** navigation item.
- **StaffCommerceLanding** which is used by the **Commerce > Dashboard** navigation item.
- **StaffFindContacts** which is used by the **Community > Find contacts** navigation item.
- **StaffAddContact** which is used by the **Community > Add contact** navigation item.
- **StaffFindEvents** which is used by the **Events > Find events** navigation item.

New navigation items that you create are not overwritten during an upgrade. To tailor the navigation on your website, create new navigation items that point to the correct content records.

> **Note:** If a new navigation item is nested under a system navigation item and the system navigation item is updated, the new navigation item may be affected by this change.

It is important to note that out-of-the-box navigation items, however, may be overwritten on upgrade.

For more information on creating navigation items, see Using sitemaps.

### Tailoring IQA queries

Queries that are provided out-of-the-box may be overwritten during an upgrade. If you want to tailor an existing query, you should copy it and modify the copy. Copied queries are preserved during an upgrade.

### Tailoring content

All content records saved in **Core Content** folders are subject to being overwritten during an upgrade. Any content records saved in the **Shared Content** folders, however, will not be overwritten.

If you want to tailor an out-of-the-box content record, you should copy it, modify the copy, and save it in the **Shared Content** folder. You can then point navigation items or short-cuts to your version of the content. Be aware, however, that out-of-the-box navigation items may be overwritten on upgrade.

New content records created by your organization should always be saved in the **Shared Content** folder.

For specific information about tailoring the staff account page, see Tailoring the staff account page.

## Business example: Event-specific console

When a staff user views an event in iMIS, they see an event-specific console that includes Showcase, Dashboard, Registrants, and Questions tabs. You may want to configure these tabs to use tailored content or to add or remove tabs. By default the event-specific console uses the **Event Dashboard** content record (located at **@/iCore/Staff_Dashboards/Specific_Event**). This content record contains a Content Collection Organizer content item that controls the four default tabs.

Any changes you make to the **Event Dashboard** content record will affect every event page; the content is not specific to a certain event. After you copy and modify the content record, you must also update the **EventDashboard** shortcut to point to your version of the content.

1. In the Staff site, go to **RiSE > Page Builder > Manage content**.
2. If you want to modify the content that displays in one or more of the tabs in the event-specific console, create new content records for the tabs. You may want to copy and modify the default content records for the tab. Save the copied content records in the **Shared Content** folder.
   - Default content records located at **@/iCore/Events**:
     - The **Showcase** tab uses the **Event Display** content record
   - Default content records located at **@/iCore/Staff_Dashboards/Specific_Event**:
     - The **Dashboard** tab uses the **Event Detail** content record
     - The **Registrants** tab uses the **Event Roster** content record
     - The **Questions** tab uses the **Event Questions** content record
3. Navigate to **@/iCore/Staff_Dashboards/Specific_Event** and open the **Event Dashboard** content record.
4. Configure the Content Collection Organizer content item (titled **Event Dashboard** by default).
5. For each tab, you can select your content as the **Content to display**.
6. If needed, add new tabs and select your content as the **Content to display**.
7. Click **Save As** and select a location in the **Shared Content** folder. You can rename the content if desired.
8. Save and publish the new content.
9. To edit the **EventDashboard** shortcut, go to **Rise > Site Builder > Manage shortcuts**.

a. Find and edit the **EventDashboard** shortcut for **All Sites**.

b. Select your version of the content record as the **URL or Content Record** pointed to by the shortcut.

c. Save the shortcut.

Reviewing new content after an upgrade

When you upgrade to a new release of iMIS, you will receive the new content, such as updates to core content records and new queries, for the release. It is strongly recommended that you review this new content.

- If you have tailored shortcuts and navigation items to point to your own content, you may not see the updates to the system content that these items initially accessed. Since you may want to incorporate some of these new features or enhancements into your Staff site, you should review the core content records to which the shortcuts and navigation items originally pointed.
- If you have copied an item, such as a query or core content record, and modified the copy, you should review the original item in case it has enhancements that you want to use in your copy.

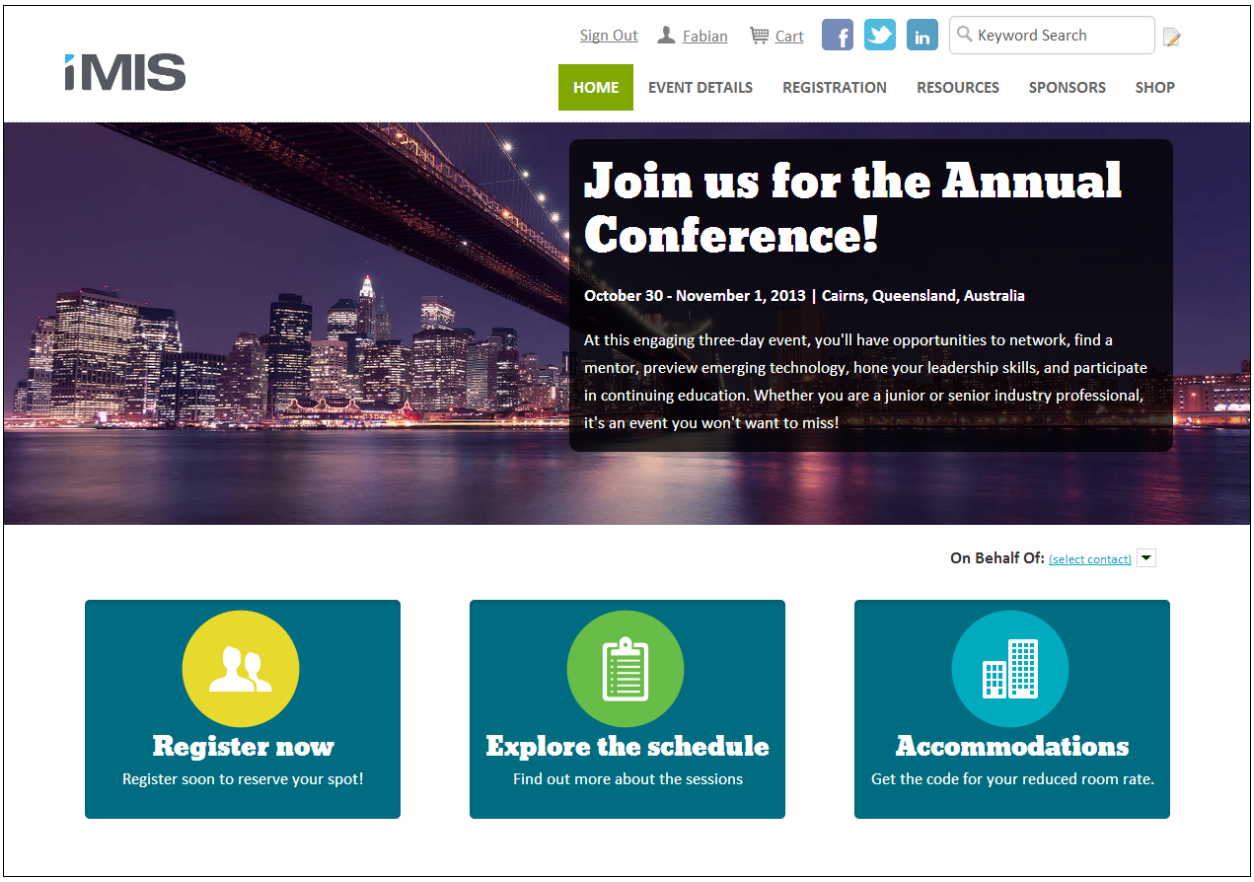
## Using Quick Start Sites

Quick Start Sites are out-of-the-box iMIS websites that you can easily copy in order to create customized sites for your organization. Quick Start Sites showcase some of the more complex enhancements in iMIS, such as dynamic content items, functionality, and UI improvements as they become available. These sites include the following:

Annual Conference

One of the most important events for an organization is the **Annual Conference**. With its dedication to conferences and other key projects, this iMIS microsite can be customized by your organization with your own unique content. Tailored sites can maximize the impact of your conferences, without affecting your main site; iMIS seamlessly integrates content between your various sites.

The **Annual Conference** Quick Start Site is built using the **London_Responsive** theme to allow access from any device.



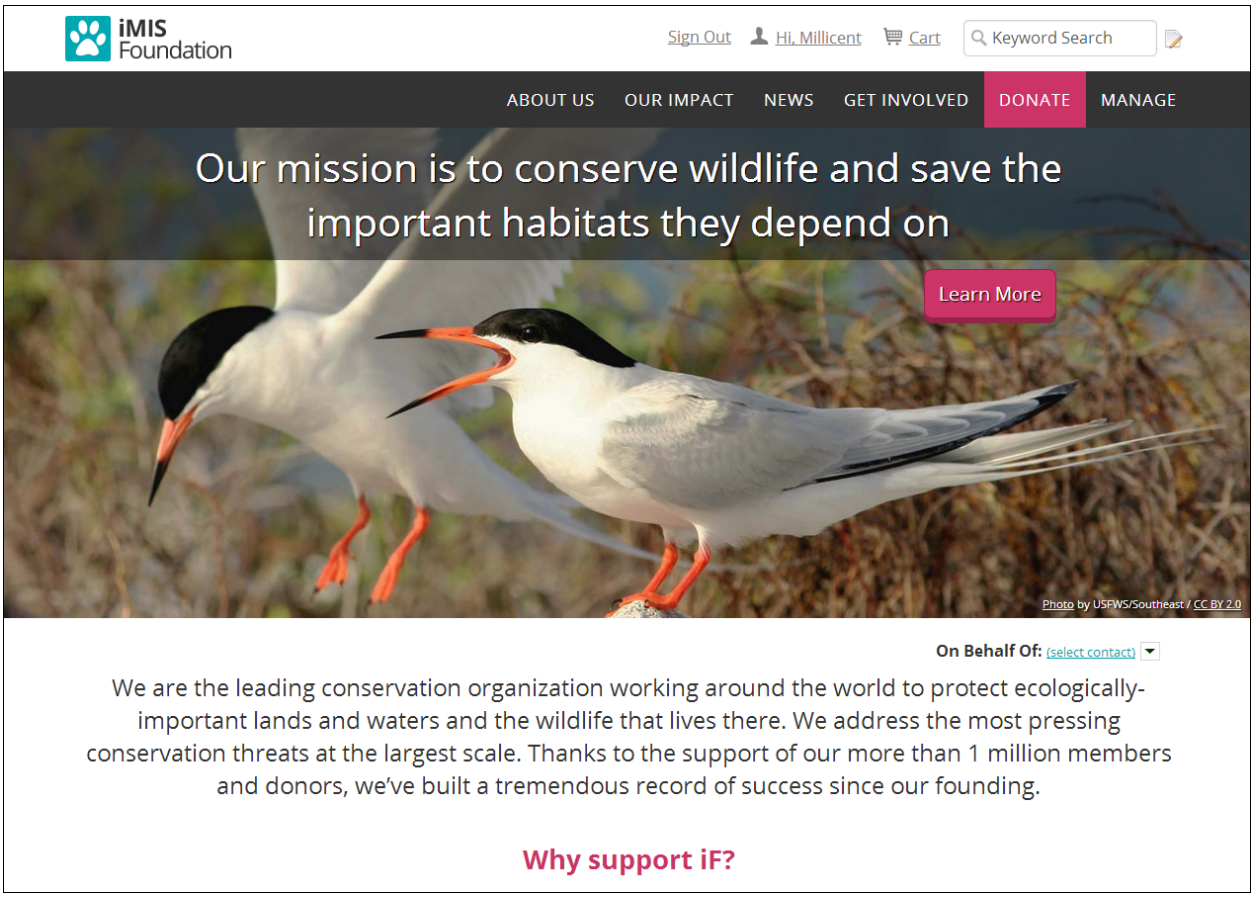

Annual Conference Mobile

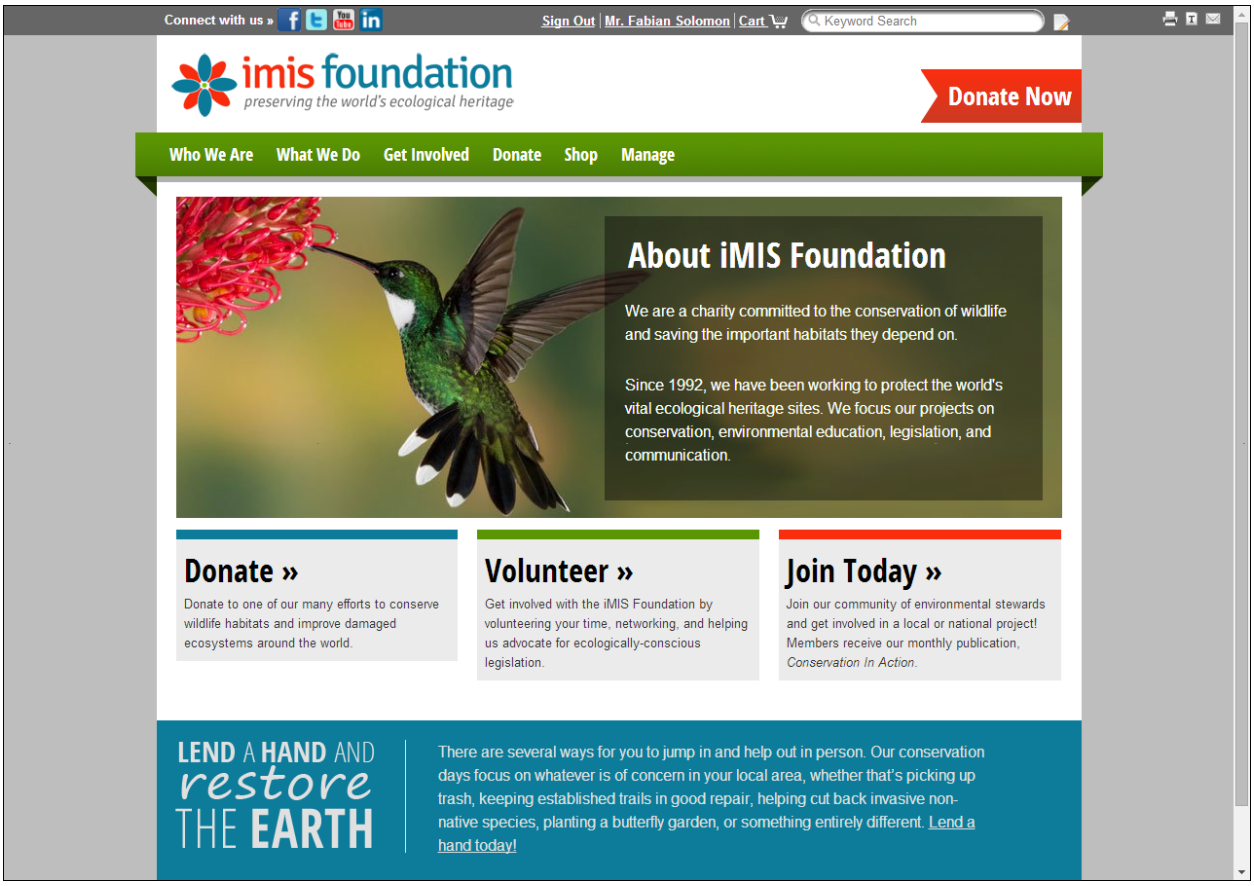
This site renders a version of your **Annual Conference**site that is optimized for use on mobile devices for both members and staff. **Annual Conference Mobile** is especially handy for members and staff while attending conferences. This site promotes quick access to personalized programs, activities, event feeds, and provides instant look-up directory profiles of other attendees.




Donor

The responsive **Donor** site offers a rich and highly customizable experience for fundraisers. It's easy for your members, donors, and prospects to make and share easy donations. It is the perfect way to spread the word about your organization's missions and fundraising goals, including immediate fundraising needs. The **Donor** site offers a rich experience for your donors, members, and the general public.


iMIS Foundation
Sign Out
Hi, Millicent
Cart
Keyword Search
ABOUT US
OUR IMPACT
NEWS
GET INVOLVED
DONATE
MANAGE
Our mission is to conserve wildlife and save the important habitats they depend on
Learn More
Photo by USFWS/Southeast / CC BY 2.0
On Behalf Of: (select contact)
We are the leading conservation organization working around the world to protect ecologically-important lands and waters and the wildlife that lives there. We address the most pressing conservation threats at the largest scale. Thanks to the support of our more than 1 million members and donors, we've built a tremendous record of success since our founding.
Why support iF?




Member Responsive

With all of the key capabilities and familiar look of a **Member** site, the **Member Responsive** site adds the flexibility to truly take advantage of the engagement opportunities that iMIS delivers. The iMIS **Member Responsive** site enables users to access your sites from a variety of different devices – from regular desktop computers, to the latest smartphones that your busy members use to stay in touch – and stay engaged with your products, events and offerings.

The **Member Responsive** sites respond to the screen size of the device on which it is being accessed. The site looks like a regular **Member** site on a large device, like a desktop computer:

Member

The **Member** site offers a rich self-service experience for your members and prospects. This site enables you to choose from a variety of visual themes, change navigation in just

a few clicks, and add any number of query-driven dynamic content items to present dynamic information to your site visitors.

With its modern look and streamlined placement of key information, your members interact with a site that inspires engagement. With many diverse areas to visit and participate in, including **Membership**, **Events**, **Shop**, **Give Now**, and **Communities**, iMIS **Member** is designed to provide a self-service experience, membership engagement and connection, and intuitive navigation.

Member Mobile

The **Member Mobile** site renders a version of the **Member** site that is optimized behaviorally and formatted for use on smartphones and tablets.

Your organization can engage with and energize your members with iMIS **Member Mobile**. Smart phones, tablets, and other mobile devices present a streamlined view with easy access to key areas of your organization's site. The **Member Mobile** site is an easy connection for members and staff on-the-go.

Quick Start Sites are designed to be copied and tailored using power RiSE tools to create a unique web presence for your organization.

> **Note:** By default, the Quick Start Sites are marked as **Inactive**. If you want to use a Quick Start Site, enable the **Is this website active** option (go to **RiSE > Site Builder > Manage websites**, and click the expand icon in the **Status** area).

> **Note:** Upgrades overwrite the **Quick Start Sites**, but you can add new content records and navigation items to a site for your own testing purposes. Upgrades will preserve your test objects.

### Creating your own website by copying a Quick Start Site

To create your own personalized website that makes full use of content items and SOA, you can copy a Quick Start Site and make changes to the copy.

When you copy a website, iMIS duplicates the site navigation and content records for the new site.

1. Navigate to **RiSE > Site Builder > Manage websites**
2. Expand the **Quick Start Sites** folder.
3. Select a website from the list of websites and review the following fields before you proceed:

- (**Properties** tab) Make sure the folder selected for the **Website-specific parent content folder** field contains the content unique to this website. Only the content in this site-specific folder will be copied. Any content shared with another website should be placed in a separate, shared folder.
- **(Look and Feel** tab) The **Folder containing template content** is normally a sub-folder of the parent folder. If the template content (footer area, header logo, and so forth) is stored in a different folder, select that folder instead.

4. Copy the website.

   To copy a Quick Start Site:

a. Select **Organize > Copy**.
b. Select the folder where you want to paste the new website.
c. Select **Organize > Paste**.
d. Enter the **Name** of the new website. Do not use special characters or punctuation.

5. Select the copied website, and click the expand icon in the **Status** area.
6. Confirm that the **Is this website active?** option is enabled. If needed, activate the website, and **Save** your changes.
7. **Publish** the website. Choose **Publish children as well** to publish all descendents of the website, such as navigation items.
8. Publish the new website's content.

   To publish the content:

> **Note:** When creating a copy of a Quick Start Site, the copied website's content will not be included in search results until the content has been published and the **Default Website (for search)** has been selected for the copied website's content folder. The copied website automatically selects itself as the **Default Website (for search)**. To change this selection, select the copied website's content folder, and choose **Edit**. In the **Properties** tab, you can **remove** or **select** a **Default Website (for search)**.

a. Navigate to **RiSE > Page Builder > Manage content**.
b. Select the copied website's content folder. Red bars displaying beside content records indicate that their status is **Working**.
c. Select **Publish**.
d. Choose the correct publishing option and click **OK**.
   The available publishing options:

- Publish Working Items Only - Publishes only the content records that currently have a status of Working. Selected objects that are in any other state are ignored.
- Publish All Items - Publishes all of the content records regardless of their status. The Updated on date will reset to the current date. Objects that are currently in a Published state have their Date of publication reset to the current date. However, if the Date of publication was manually overwritten, the date remains unchanged.
- Publish Working Items, Regenerate Published Items - Publishes all of the selected definition objects regardless of their status. The Date of publication remains unchanged for objects that are currently in a Published state. The Updated on date will reset to the current date.

As each folder and content record publishes, the status will change from **PublishPending** (represented by a yellow bar that displays beside the content record) to **Published** (no bar will display).

**Note:** If the website is hosted on a separate web server, publish the Core Content folder.

**Note:** If the website you copied contains URL shortcuts, be sure to review those shortcuts in your new website to determine if you need to create fresh shortcuts. For example, when you select the iMIS logo in the **Member** site, the page redirects to the shared **Member Home** content record. When you make a copy of the **Member** site and you select the iMIS logo from the new site, you will be redirected to the same shared **Member Home** content record. To resolve this issue, create a fresh shortcut that will point to your new **Member Home**.

To learn more about personalizing a copied Quick Start Site, you can read the following article:

- Using sample themes and Master Pages
- Creating a custom theme

### Using sample themes and Master Pages

Several themes have been created for the Quick Start Sites. You can modify these themes to help identify and personalize your organization's website.

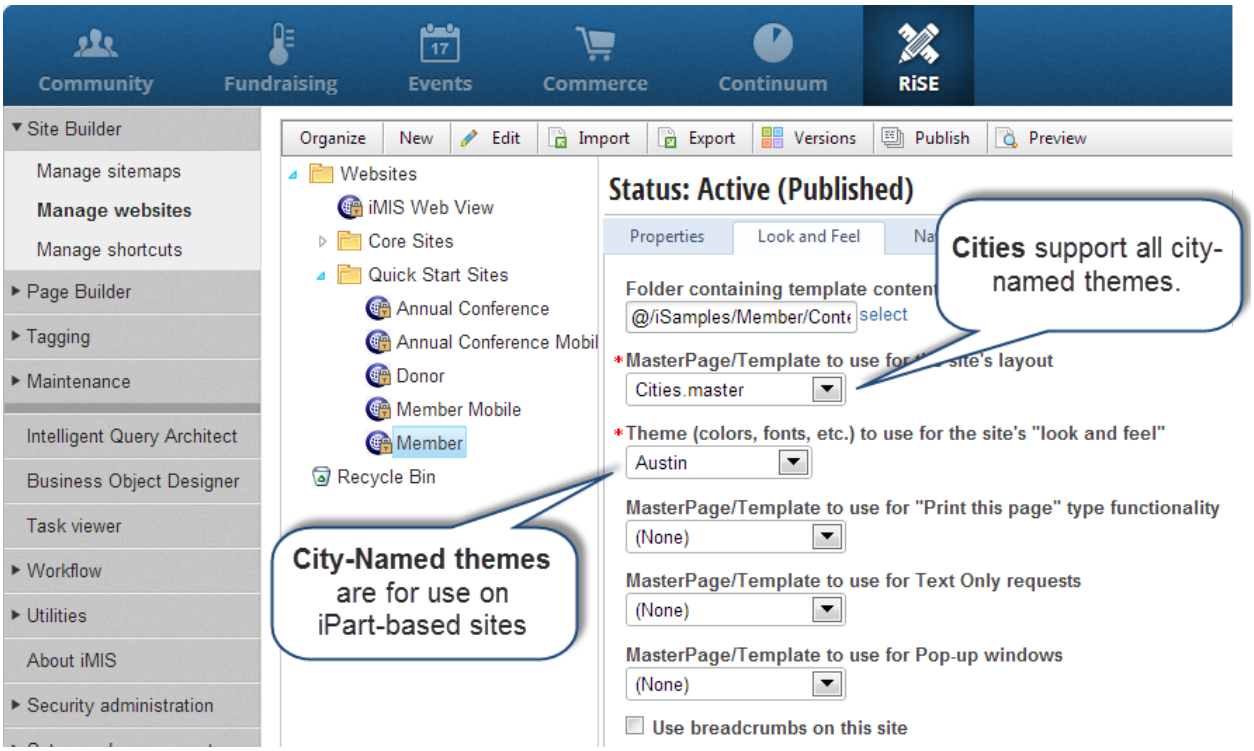
Best practices to consider for theme development

- Never change the core style sheets **00-Reset.css** and **10-UltraWave.css**. All derivative themes inherit from these files, and any changes you make to them are lost on upgrade. Instead, override the base styles in your **99-[theme].css**.
- Before modifying a theme, find the best one: apply all of the themes to the default **Member** site in turn, and decide which theme is closest to the final look and layout that you want.
- Always work from your copy of the theme, so that you can begin again.
- Make changes only to websites that you create. When a Quick Start Site is updated with each release, the iMIS Upgrader overwrites any changes you made to it.

You can change the look and feel of the Quick Start Sites by selecting different combinations of a **Master Page** and its matching **theme**. If you want to modify a particular design for your website, make sure you create a copy of the master page and theme before making any changes.

> **Note:** iMIS themes give you a head start on developing your website. To provide you an idea of how things could look, we have used numerous pictures, illustrations, and images that we purchased under a limited license for ASI's use. The icons can be used on your website, but if you reuse any of the other images, you will need to buy a license. We acquire the majority of our images from iStockPhoto and most are available in the range of $15-$50; much less than the cost and labor of creating them on your own. If you have any questions, please contact us.

Click to view image




**Warning!**

If possible, avoid customization to Master Pages. If you do need to make changes, make the changes in a copy of the master page. Any customizations performed to the out-of-the-box master pages will be overwritten after an upgrade.

iMIS provides basic designs for iMIS Quick Start Sites. You can use these designs as starting points for customizing your Web sites.

Cities.master

The set of city-named themes support RiSE sites and can be used interchangeably with the **Cities** master page.

Austin




Cities_Responsive.master

The set of responsive city-named themes support RiSE sites and can be used inter-changeably with the **Cities_Responsive** master page.

Austin_Responsive

iMIS

On Behalf Of: (select contact)

**Steve Tarleton**

Sun Party Ltd.



MY COMMUNITIES

You have not joined any communities

View All Communities

MY CHAPTERS

MY COMMITTEES

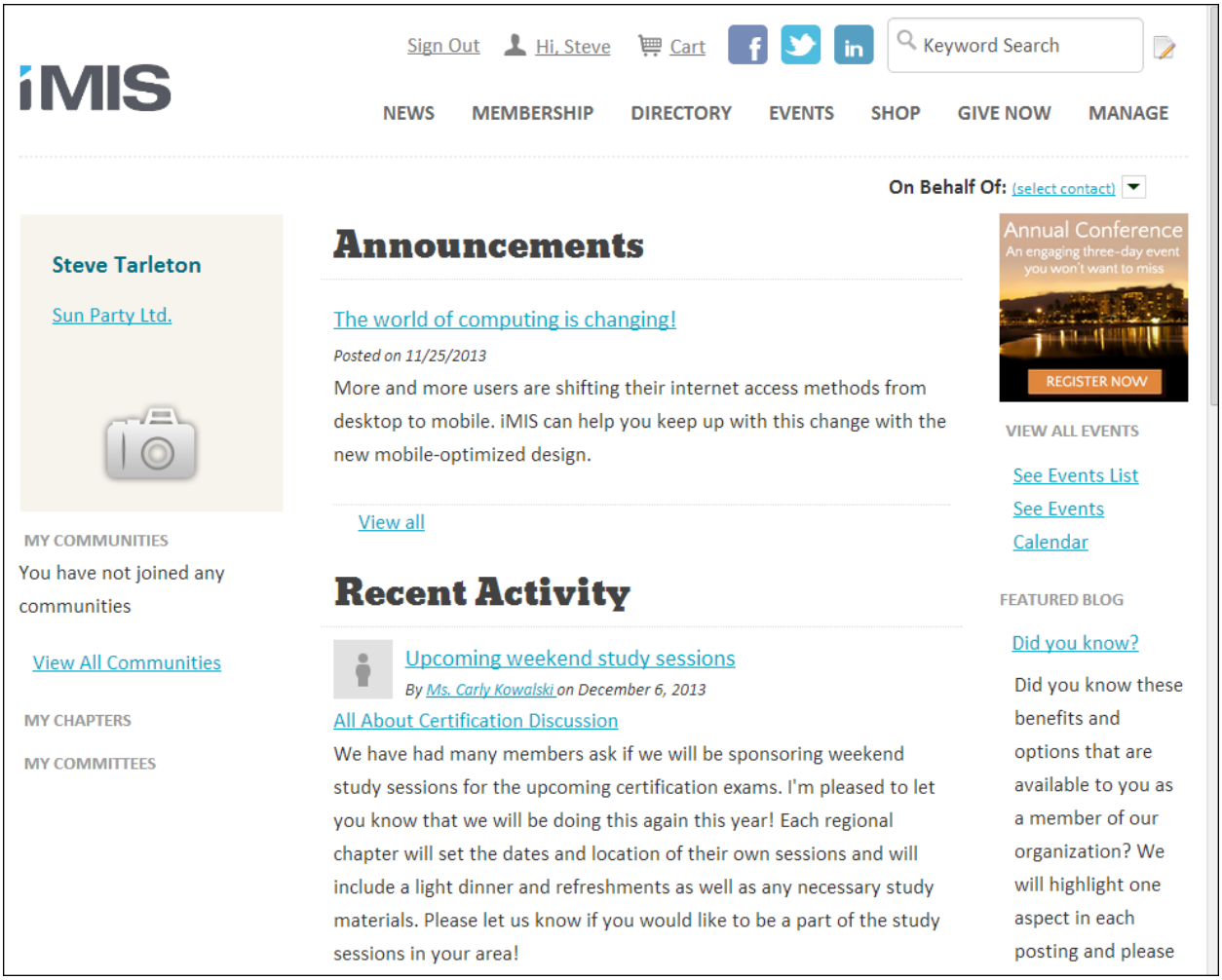
## Announcements

### The world of computing is changing!

*Posted on 11/25/2013*

More and more users are shifting their

London_Responsive



iMIS

On Behalf Of: (select contact)

**Steve Tarleton**

Sun Party Ltd.

MY COMMUNITIES

You have not joined any communities

View All Communities

MY CHAPTERS

MY COMMITTEES

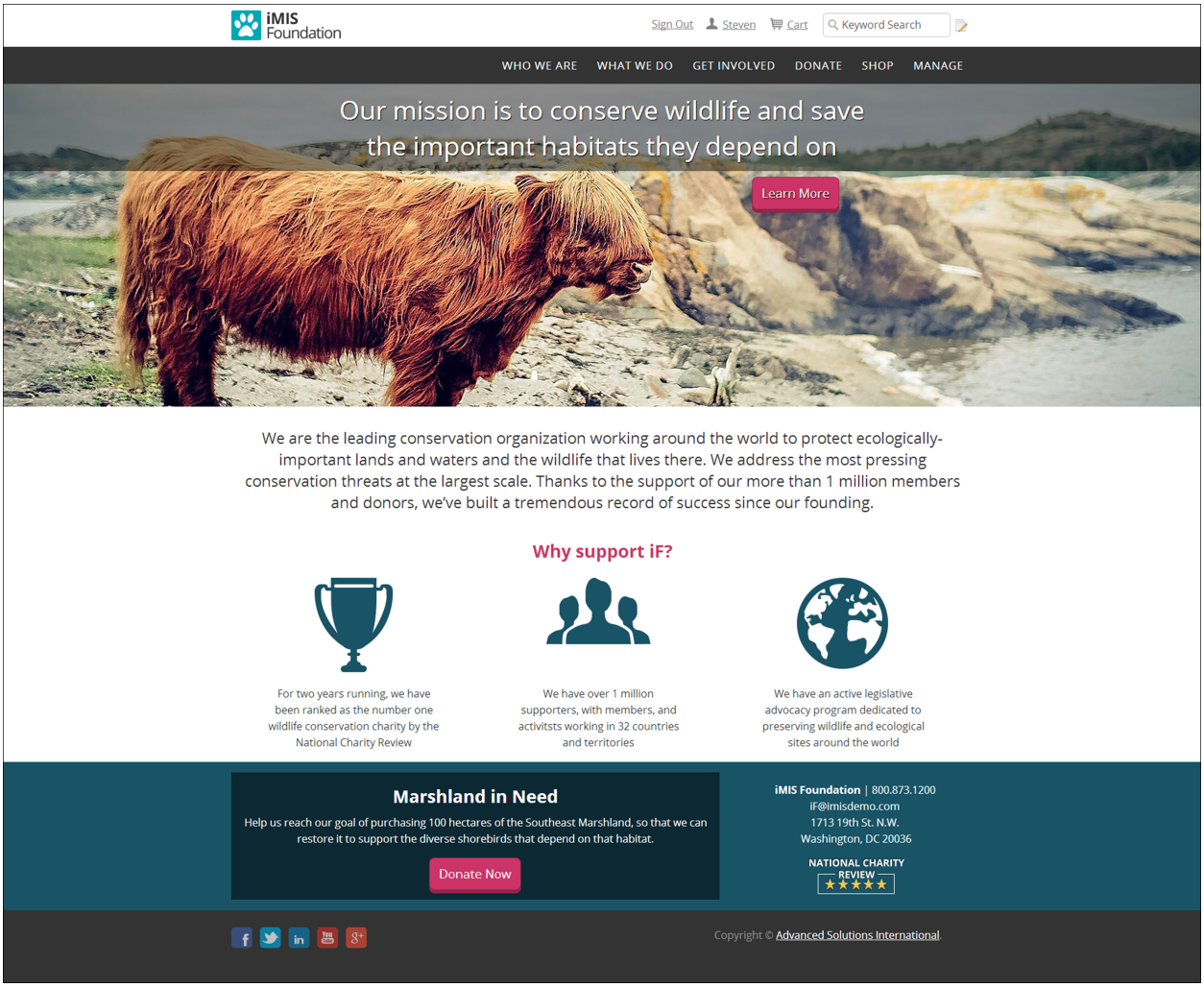
# Announcements

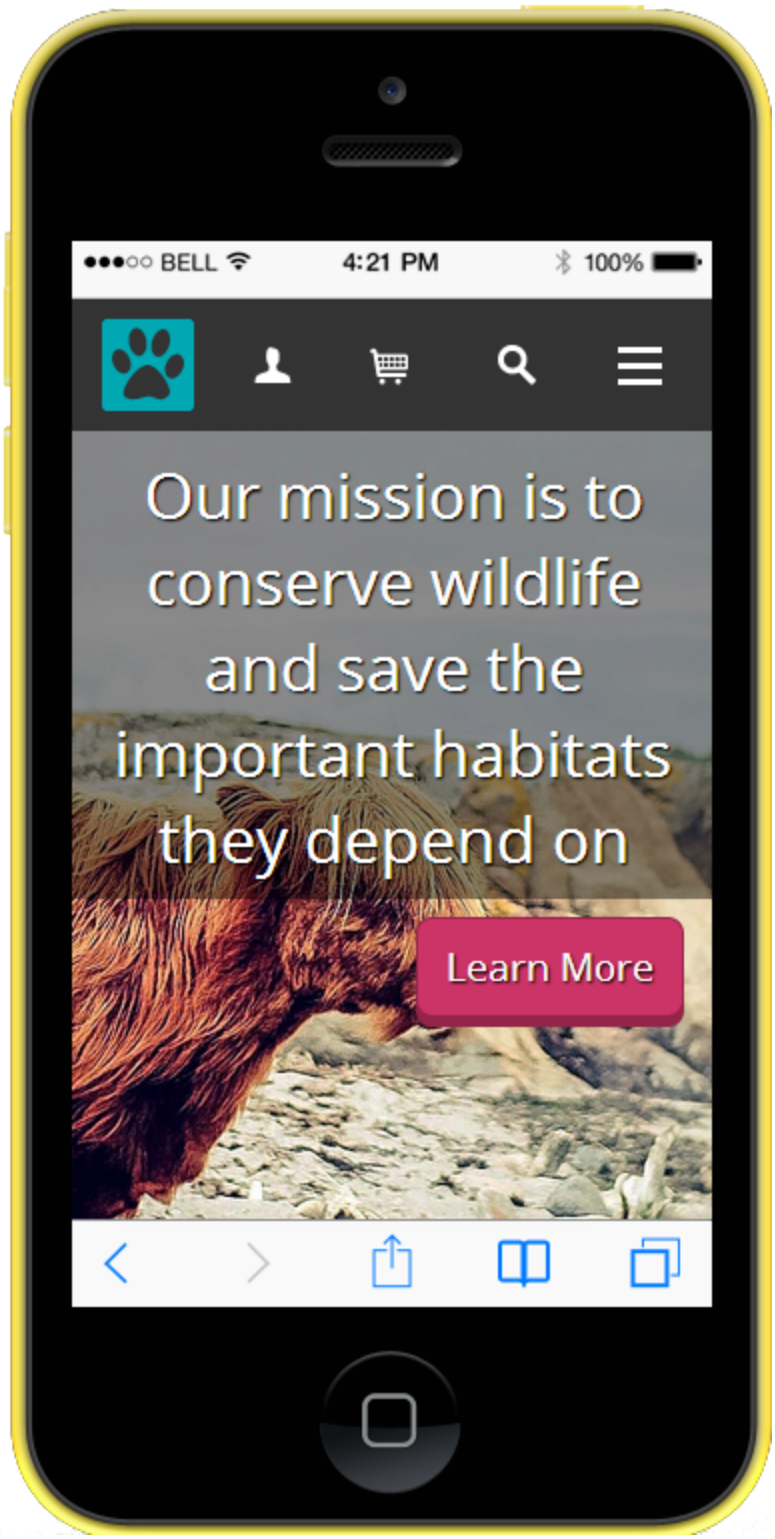
## The world of computing is changing!

*Posted on 11/25/2013*

More and more users are shifting their internet access

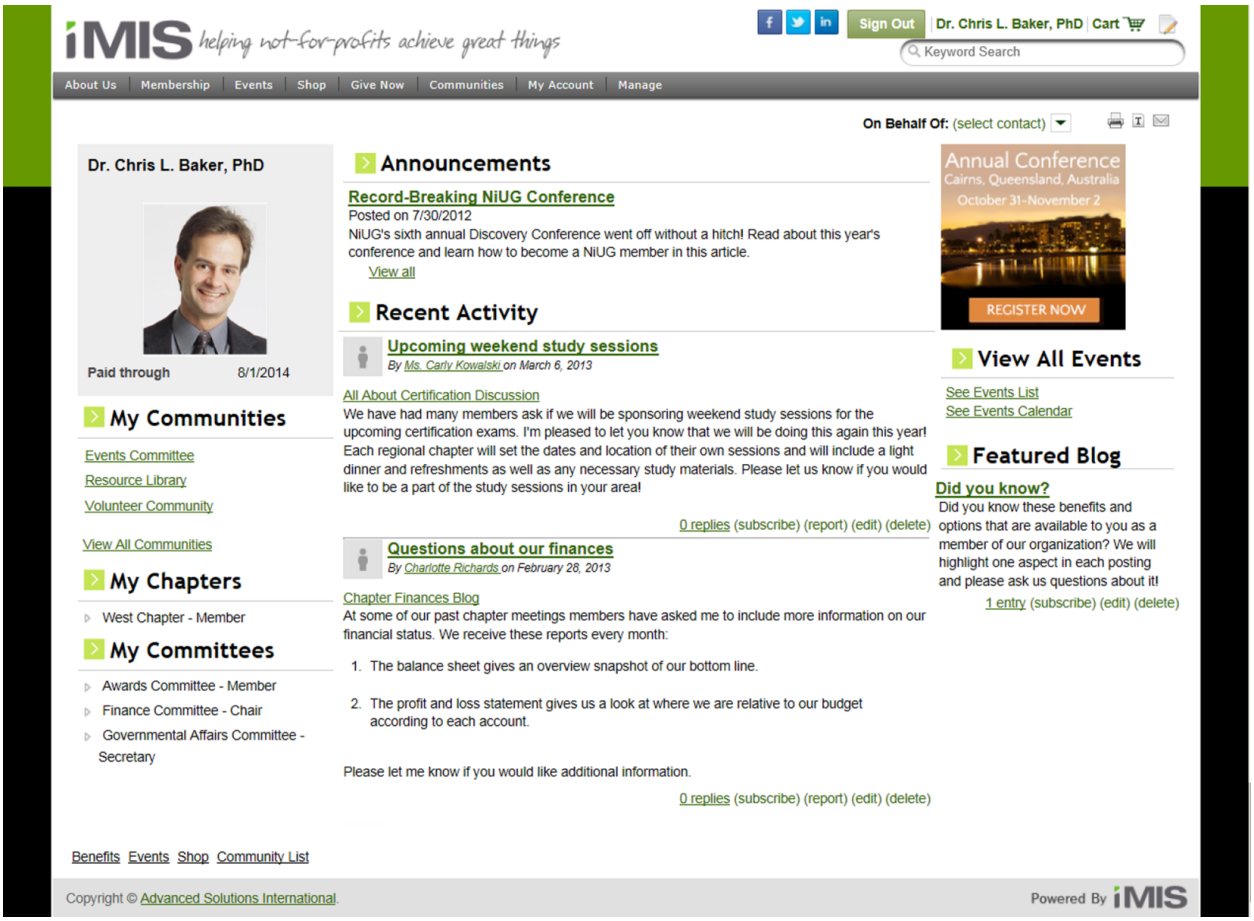
# Toronto_Responsive




●●●○○ BELL
4:21 PM
100%
Our mission is to conserve wildlife and save the important habitats they depend on
Learn More

The set of tree-named themes support RiSE sites and can be used interchangeably with the **Forest** master page.

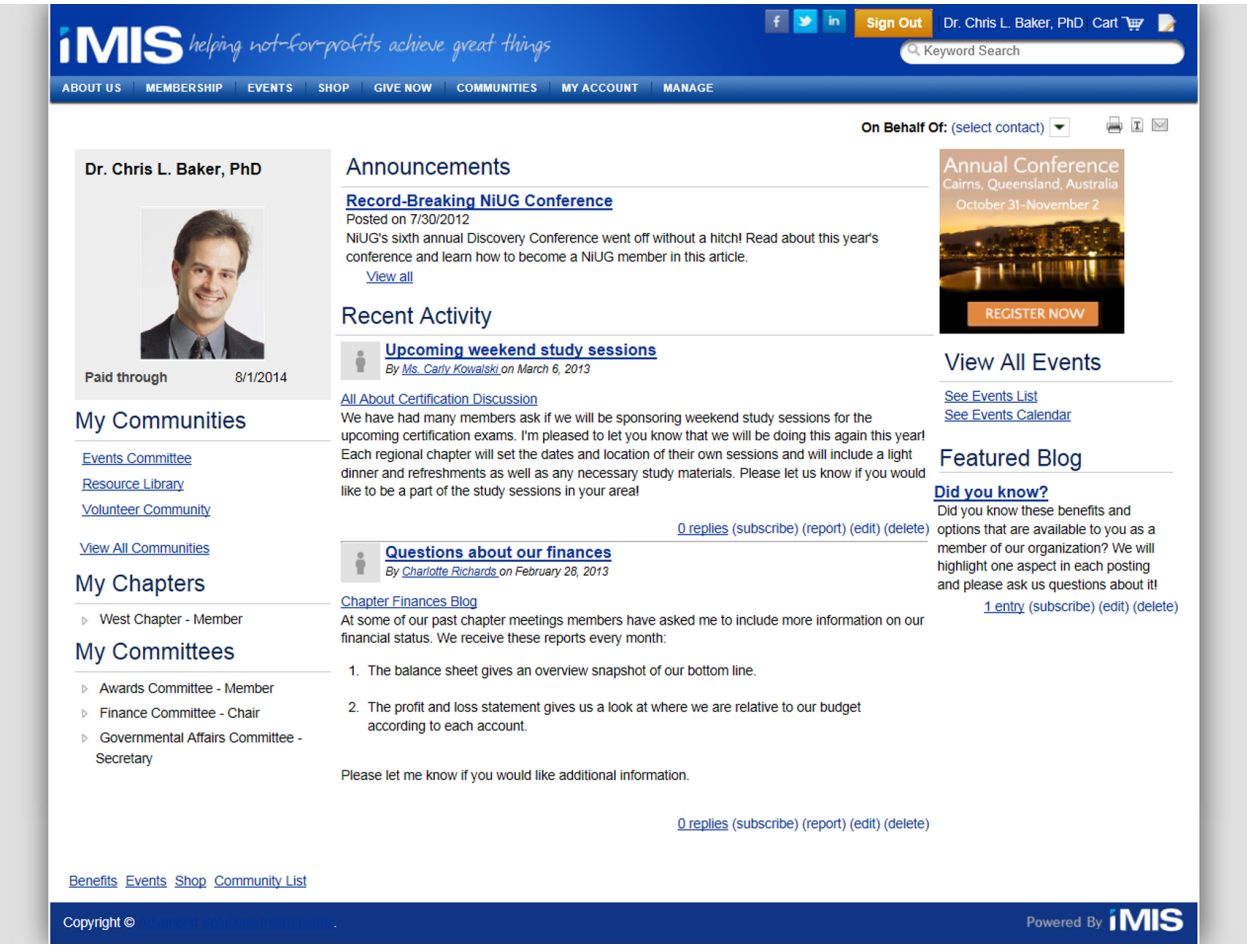
## Aspen




## Aspen2


iMIS helping not-for-profits achieve great things
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Dr. Chris L. Baker, PhD
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Keyword Search
About Us
Membership
Events
Shop
Give Now
Communities
My Account
Manage
On Behalf Of: (select contact)
Dr. Chris L. Baker, PhD
Paid through 8/1/2014
My Communities
Events Committee
Resource Library
Volunteer Community
View All Communities
My Chapters
West Chapter - Member
My Committees
Awards Committee - Member
Finance Committee - Chair
Governmental Affairs Committee - Secretary
Announcements
Record-Breaking NiUG Conference
Posted on 7/30/2012
NiUG's sixth annual Discovery Conference went off without a hitch! Read about this year's conference and learn how to become a NiUG member in this article.
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Upcoming weekend study sessions
By Ms. Carly Kowalski on March 6, 2013
All About Certification Discussion
We have had many members ask if we will be sponsoring weekend study sessions for the upcoming certification exams. I'm pleased to let you know that we will be doing this again this year! Each regional chapter will set the dates and location of their own sessions and will include a light dinner and refreshments as well as any necessary study materials. Please let us know if you would like to be a part of the study sessions in your area!
0 replies (subscribe) (report) (edit) (delete)
Questions about our finances
By Charlotte Richards on February 28, 2013
Chapter Finances Blog
At some of our past chapter meetings members have asked me to include more information on our financial status. We receive these reports every month:
1. The balance sheet gives an overview snapshot of our bottom line.
2. The profit and loss statement gives us a look at where we are relative to our budget according to each account.
Please let me know if you would like additional information.
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Annual Conference
Cairns, Queensland, Australia
October 31–November 2
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Did you know?
Did you know these benefits and options that are available to you as a member of our organization? We will highlight one aspect in each posting and please ask us questions about it!
1 entry (subscribe) (edit) (delete)
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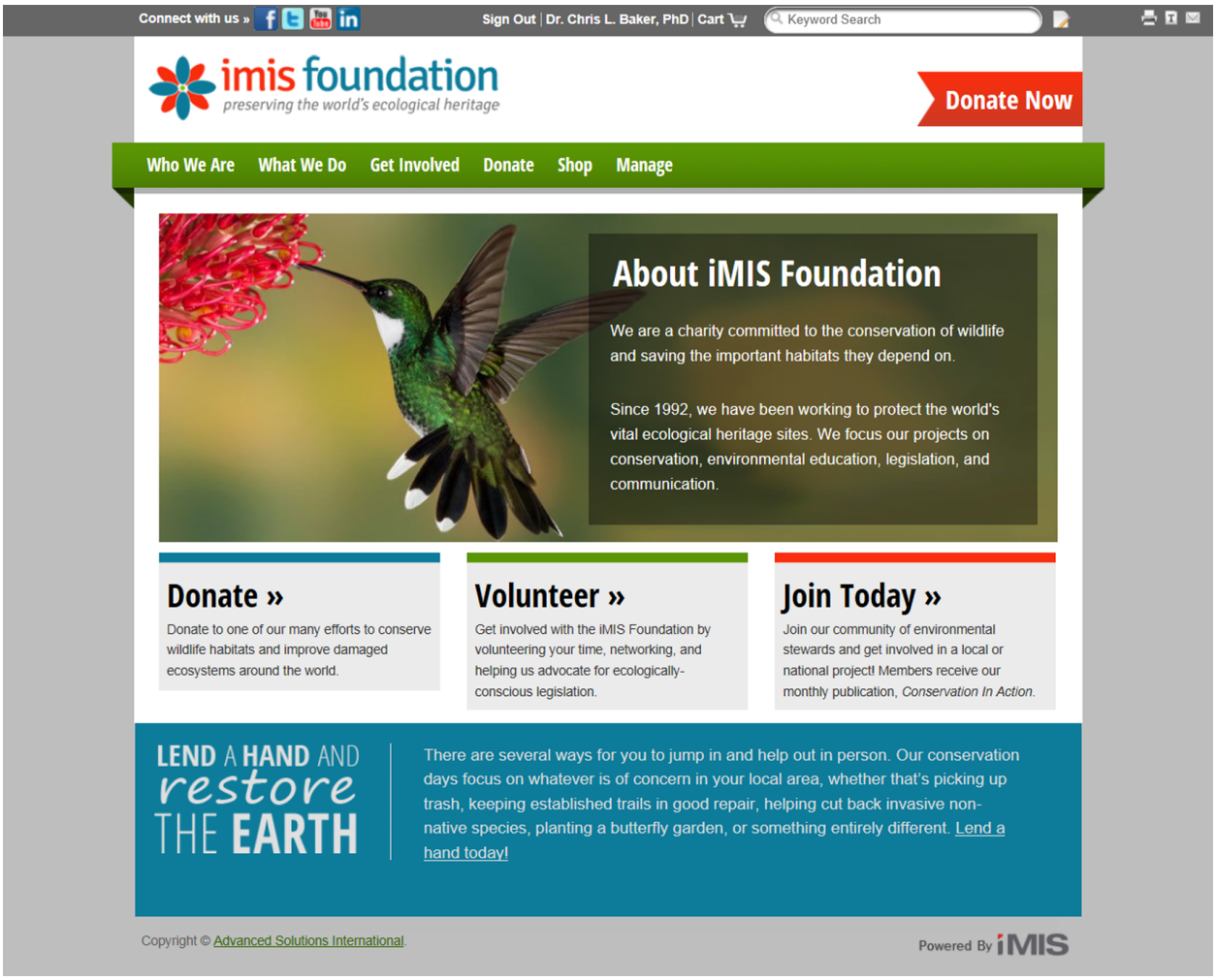
## Birch



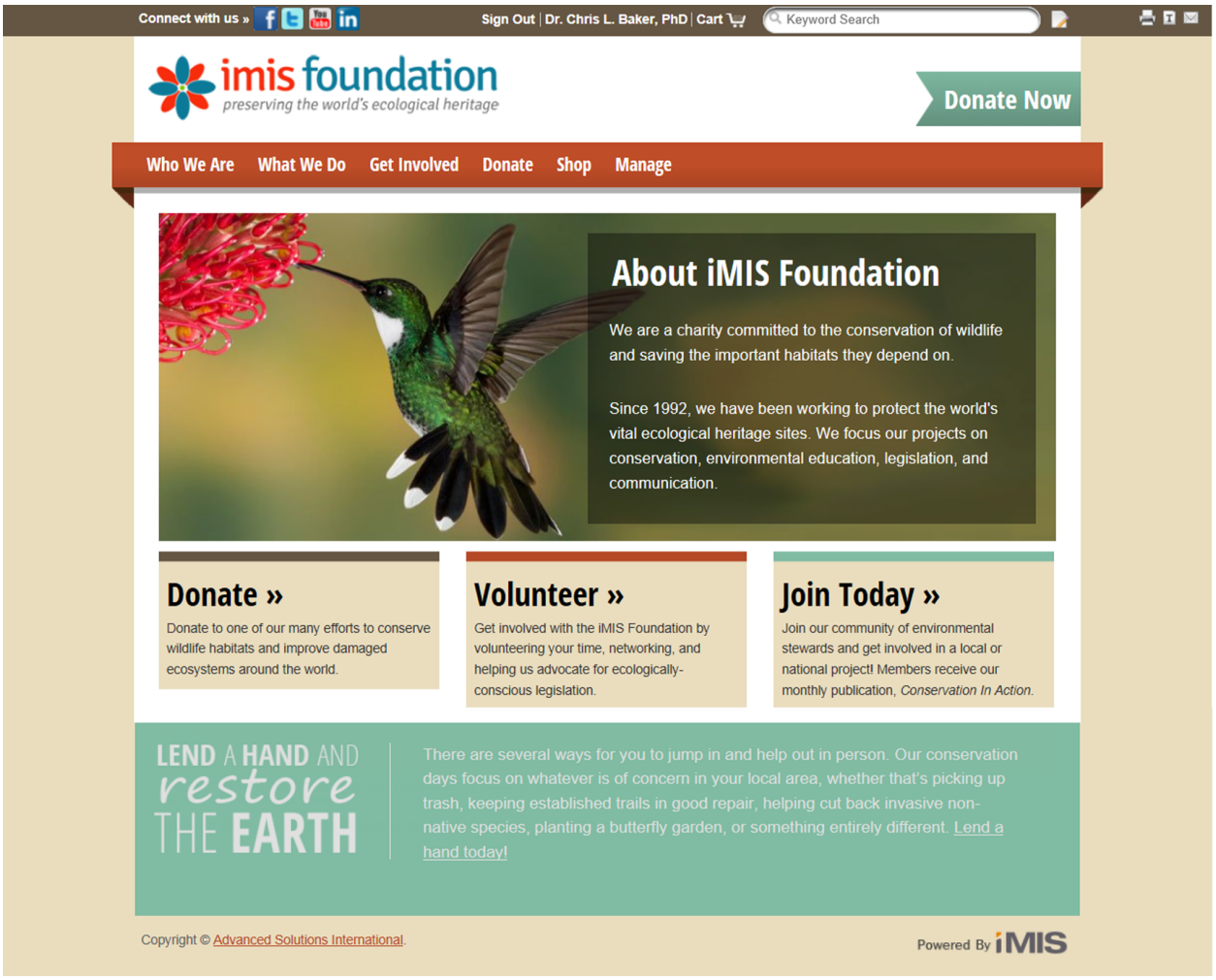

Planets.master

The set of planet-named themes support RiSE sites and can be used interchangeably with the **Planets** master page.

Mercury


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Who We Are
What We Do
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About iMIS Foundation
We are a charity committed to the conservation of wildlife and saving the important habitats they depend on.
Since 1992, we have been working to protect the world's vital ecological heritage sites. We focus our projects on conservation, environmental education, legislation, and communication.
Donate »
Donate to one of our many efforts to conserve wildlife habitats and improve damaged ecosystems around the world.
Volunteer »
Get involved with the iMIS Foundation by volunteering your time, networking, and helping us advocate for ecologically-conscious legislation.
Join Today »
Join our community of environmental stewards and get involved in a local or national project! Members receive our monthly publication, Conservation In Action.
LEND A HAND AND restore THE EARTH
There are several ways for you to jump in and help out in person. Our conservation days focus on whatever is of concern in your local area, whether that's picking up trash, keeping established trails in good repair, helping cut back invasive non-native species, planting a butterfly garden, or something entirely different. Lend a hand today!
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## Venus


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About iMIS Foundation
We are a charity committed to the conservation of wildlife and saving the important habitats they depend on.
Since 1992, we have been working to protect the world's vital ecological heritage sites. We focus our projects on conservation, environmental education, legislation, and communication.
Donate »
Donate to one of our many efforts to conserve wildlife habitats and improve damaged ecosystems around the world.
Volunteer »
Get involved with the iMIS Foundation by volunteering your time, networking, and helping us advocate for ecologically-conscious legislation.
Join Today »
Join our community of environmental stewards and get involved in a local or national project! Members receive our monthly publication, Conservation In Action.
LEND A HAND AND restore THE EARTH
There are several ways for you to jump in and help out in person. Our conservation days focus on whatever is of concern in your local area, whether that's picking up trash, keeping established trails in good repair, helping cut back invasive non-native species, planting a butterfly garden, or something entirely different. Lend a hand today!
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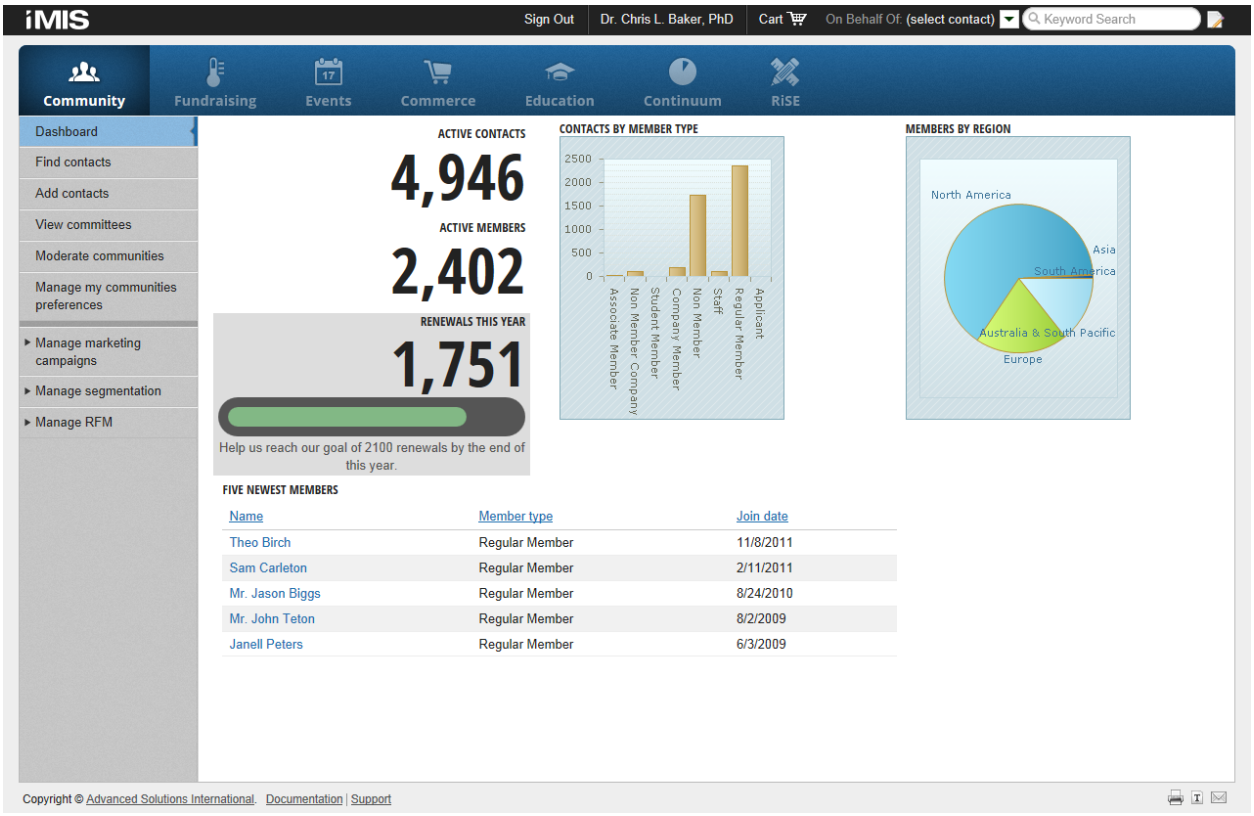
## Mars




Mountains.master

The **Mountains** master page was created specifically for staff functionality. It should not be used with member-facing websites.

Everest




Sapling.master

The **Sapling** master page was created for mobile devices.

Aspen_Mobile




# Upcoming Spring Conference

Don't miss out on this year's annual spring conference! The program includes plenty of networking opportunities, workshops to sharpen your skills and sessions to keep you up-to-date with the latest technological advances.
To register for this and other upcoming events click on the events link below.



Austin_Mobile


AT&T
1:19 PM
iMIS
Cart
Annual Conference
The Annual Conference is fast-approaching. Don't miss out – register today!
October 30 - November 1
Cairns, Australia
Learn More
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NEWS

### UltraWave and Universal Design

The Quick Start Site themes and master pages (see Using Quick Start Sites) build upon a new underlying template called **UltraWave**. UltraWave incorporates structure and styling for Universal Design. Universal Design seeks to make web content barrier-free, making sites accessible to all challenged users. Challenged users include not only the millions of physically or cognitively impaired, but also seniors, non-native speakers, and those in other countries and cultures (localization).

Universal Design has benefits beyond helping websites meet the myriad of web accessibility standards: it also aids in breaking technology and human barriers. Universal Design is the foundation for transforming pages and content into outputs and displays your members may need, including print presentation, net book usage, and even cell phone applications.

> **Warning!**
>
> UltraWave themes only support RiSE sites.

Features of the template include:

- Developed toward W3C standards to help meet accessibility requirements
- Clean, minimal design uses neutral shades and layout
- Offers a streamlined set of stylesheets and skins
- Easily customized with logos, fonts, and colors
- Designed to be easily rebranded by your organization

### Working with website themes

iMIS **Member** and **Donor** sites include a style guide that allows users with administrative privileges to see the impact of changes to site themes from one central location. Content editors are able to preview their site themes and changes. Theme designers who choose to dive deeper into stylesheets are able to see their work in a single central location. There is no longer a need to navigate to several different pages or content records to see the effects of customization.

The style guide displays the basic HTML elements in an attractive, easy to navigate manner. Content includes headings, paragraphs, links, images, lists, block quotes, user

messages, and emphasis classes. This helpful guide is available at **Manage > Style Guide > Base Elements**.

Copying a website theme

Themes control the layout, font, and colors of your iMIS sites. The Quick Start Sites come with a set of themes designed for RiSE sites.

Creating a copy of a theme also ensures that you do not compromise your ability to access a working backup. Follow these steps to copy a theme, which is easier than creating a theme from scratch.

> **Note:** Themes change and develop with every iMIS update. To avoid losing your changes, be sure to work from a copy of the theme.

1. Copy an out-of-the-box theme and master page to be unique to your new site:
a. Locate the theme folder (such as **\Aspen**), which defaults to **C:\Program Files (x86)\ASI\iMIS\Net\App_Themes**.
b. Copy, paste, and rename **\Aspen** to your new site name, for example, **\ABC**.
c. Locate the master page (such as **Forest.master**), which defaults to **C:\Program Files (x86)\ASI\iMIS\Net\Templates\MasterPages**.
d. Copy, paste, and rename **Forest.master** to your new site name, for example, **ABC.-master**.
2. Go to **RiSE > Site Builder > Manage websites**.
3. Edit your site to use your new theme files:
a. Highlight your site (**ABC**).
b. Edit the **Site Look and Feel** to point to your new theme files:
- **MasterPage/Template**: select **ABC**
- **Theme**: select **ABC**.
c. Click **Save and Publish**.
4. Edit your theme files as needed to tailor the design.

Changing theme headers

The first elements to change on your website are the highly visible elements that public visitors see and use in the header: logo, social networking links, welcome banner, and

the favicon.

Logo

The header logo is contained in a content record: **@\[theme]\ContentAreas\Header Logo**. To add your own logo, edit this content record, remove the contents in the HTML Content Item, and replace with your own logo.

> **Note:** Alternatively, you can change the logo in the CSS. The logo is set in **99-[theme].css** by the selector **#masterHeaderImage**. Change the background image and the dimensions to match your own logo.

Social networking links

The links to the social networking sites in the top (auxiliary) navigation are also defined in a content record: **@\[theme]\ContentAreas\Social Networking Images**.

To change the links to navigate to your own social networking pages, edit the content record and change the links on the icons.

In the HTML editor, replace the href on each `<a>` tag with the appropriate URL.

**Example:**

```
<a href="http://www.facebook.com/geointernational" target="_new"> <img id="FacebookLogo" style="border-width: 0px;" alt-t="Visit our Facebook page" src="[Theme]/images/facebook.png" /> </a>
```

Favicon

The **favicon** is the little icon that displays next to the website in your bookmarks and on the browser tab in modern browsers. Changing it to your organizations' icon is simple: create an icon sized either 32x32 or 64x64 pixels and name it **Favicon.ico**. Then overwrite the original file **C:\Program Files (x86)\ASI\iMIS\Net\Favicon.ico**.

Copyright statement

The copyright statement is contained in a content record within your copied site's **ContentAreas** folder: **Footer Copyright**. Edit the **Footer Copyright** instance of the Content Html content item on that page to update the copyright.

Changing theme colors

The next step in customizing your theme is to change to colors that support your branding and style. You will make these changes in both CSS and in images.

CSS colors

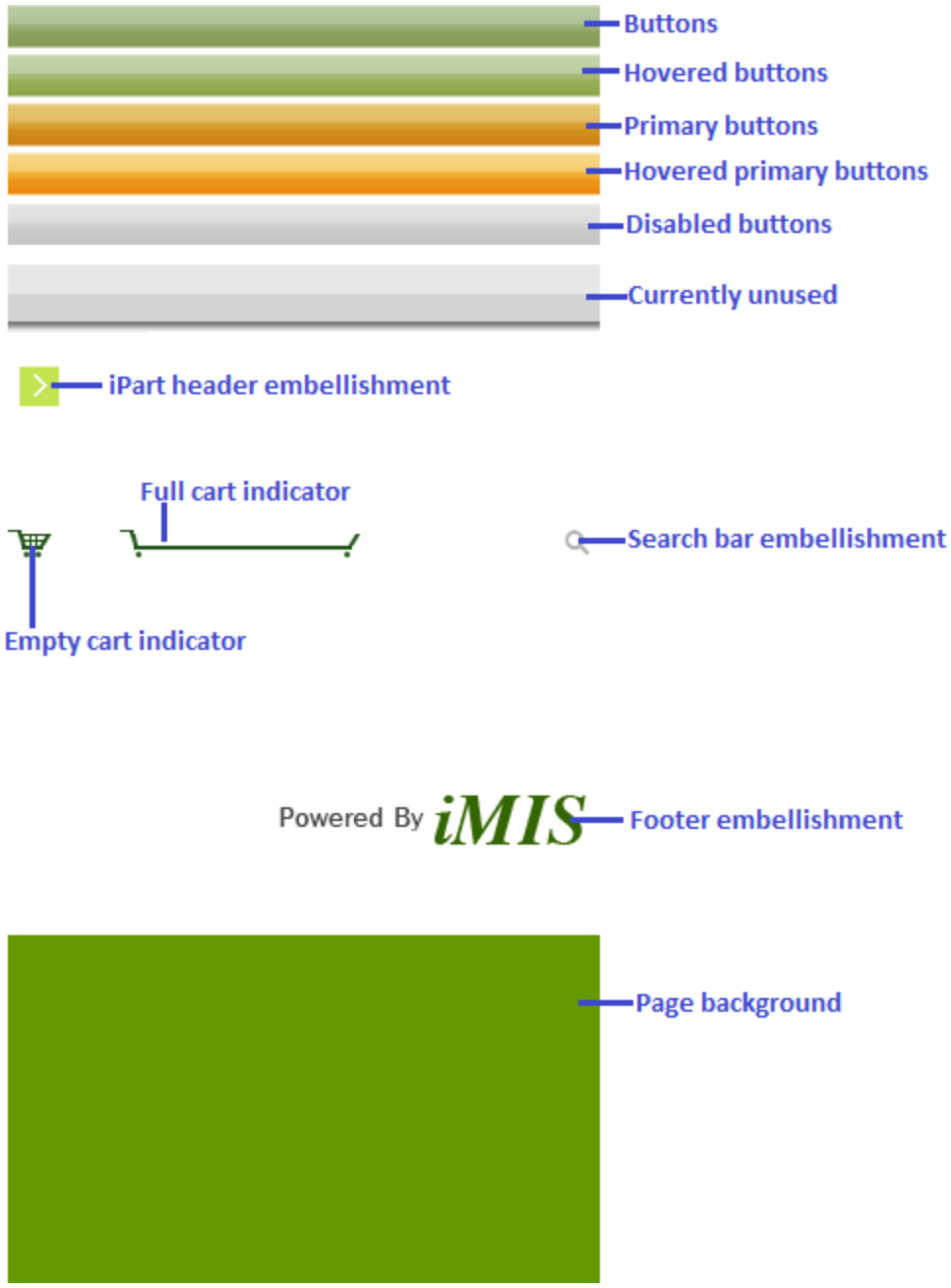
All theme-specific color and styling is located in **99-[theme].css**. To find all color references that you might want to change, search the CSS file for these strings:

- color
- border
- background

We also recommend using your browser development tools to help you identify which styles you need to update for your color changes.

Sprite colors

A few of the theme's use sprites to control some of the site colors. A **sprite** is a single image that combines several commonly used images into one file. CSS then defines which part of the image displays for various purposes. Because your server only has to load a single image instead of several, using sprites reduces load time for your website. To improve performance, the new Quick Start Sites use sprites when possible. The image below shows a sprite used in the theme **Aspen**, and labels where each image is used:




You can either edit the sprite provided (which is easier), or create your own:

- When editing the provided sprite, keep all elements in their original pixel coordinates, so that you do not have to edit the related CSS.
- The .png version of the sprite is located in **images/[theme]_sprite.png**. You can edit this image in your favorite image editor, but we do not recommend editing in MS Paint, as you will lose the background transparency.

- Your theme's **\Resource** folder also includes a .psd source file of each sprite. You can edit the .psd with Photoshop or GIMP, a free image editor that can edit and save images in .psd and Web-safe formats.
- If you edit the .psd, save your new image as a .png, and place it in the images folder of your theme.

  For greater design control, you also have the option of creating your own sprite. If you choose that option, you may also need to update your theme CSS for the new coordinates of the sprite. To help you with this process, we recommend the following resources:

- CSS Sprites: What They Are, Why They're Cool, and How To Use Them
- Sprite Cow calculates the pixel positions of the various images inside your sprite.
- CSS Sprite Generator lets you upload a zip file of images and get back a sprite file with the corresponding CSS.

Changing theme home pages

The **Member** site uses a pair of home pages: one that appears to guests (unauthenticated view) and another that appears to those who have signed in (authenticated view). You can change one or both of them, or drop one entirely and have one home page appear to all.

Changing the unauthenticated home page

1. Go to **RiSE > Page Builder > Manage content**.
2. Create a new content record for your unauthenticated home page.
3. Copy the **AuthScript** code to your new home page:
   - Edit the unauthenticated home page content record **@\iSamples\Member\Home**.
   - Locate the HTML content item named **AuthScript**.
   - Select **Move To** and select your unauthenticated home page.
   - Edit your unauthenticated home page and move the **AuthScript** content item to the top of the content record.
   - **Save** and **Publish** your home page.
4. Make your site's home page link to your new home page.
   - Go to **Site Builder > Manage sitemaps**.
   - Select your website.

- Edit the default navigation item (flagged with a golden star) and select your new home page for **Content or URL to Link to**.
- **Save** and **Publish** your sitemap.

> **Note:** To have your own home page behave like the default home page (switch to the authenticated home page when the user signs in), you need to add the code-bearing HTML content item.

Changing the authenticated page

1. Go to **RiSE > Page Builder > Manage content**.
2. Edit your unauthenticated home page content record.
3. Locate the HTML content item named AuthScript.
4. Select Configure and switch the editor's view from Design to HTML, to view the code.
5. Edit the path to be the published path of your new authenticated home page:
   `path = "~/Mbr/Home/[theme]/MemberHome.aspx";`

You can drop to a single home page. Do either of the following to use only one home page:

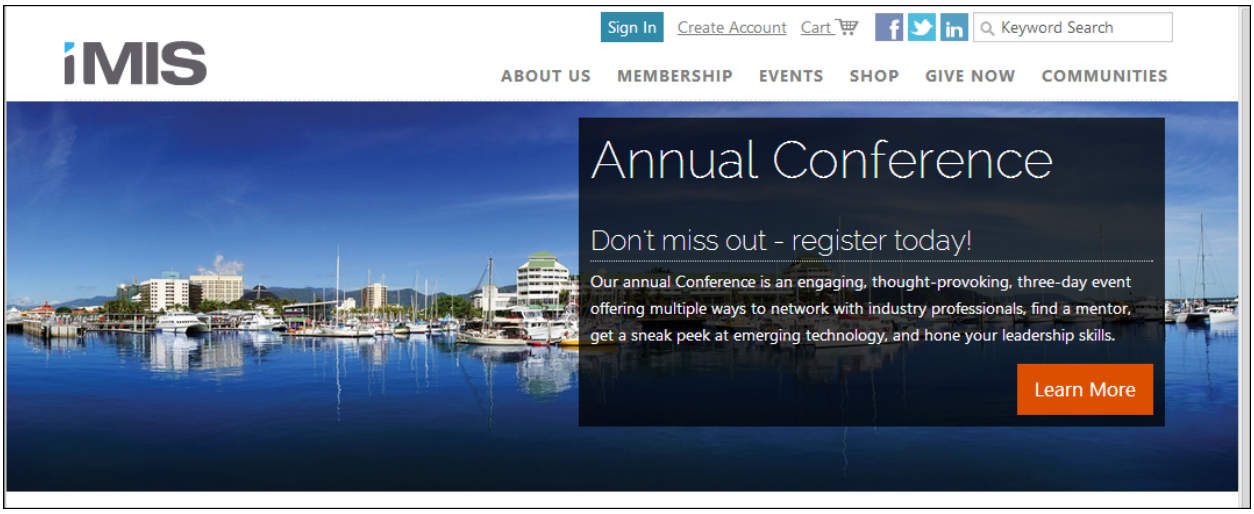
- Remove the script that opens the authenticated home page. Go to **Page Builder > Manage content** and **Edit** the unauthenticated home page **@\[site]\Home**, then delete the HTML content item named **AuthScript**.
- Substitute your own page entirely. Go to **Site Builder > Manage sitemaps** and set your desired content record to be the default home page of your website.

> **Note:** To have your own authenticated home page appear as soon as the user signs in, you need to edit the code-bearing HTML content item that calls it.

Adding a banner to your home page

iMIS provides various master pages that help control the layout of a website. The Cities master page includes a home page area with a banner stretched across the width of the home page.

If you are using the Cities master page, you can copy and modify the **Home Page Full Width Area** content record to include your organization's unique image and content.




The Member demo website is used as an example in these instructions.

Do the following to add a banner to your home page:

1. From the Staff site, go to **RiSE > Page Builder > Manage content**.
2. Copy or modify the **Home Page Width Area** content record. Do one of the following:
   - Copy the content record located at **@/iSamples/Member/ContentAreas/Home_Page_Full_Width_Area**, and paste the content record to your website's **Content Areas** folder.
   - Locate the **Home Page Full Width Area** content item if you using an iMIS-copied Quick Start Site (**@/website/ ContentAreas/Home_Page_Full_Width_Area**).
3. Edit the content record in HTML mode. Anything you add to this content record will now appear in the banner area of your website's home page.
4. Change the background image and color of the banner using inline styling on the **Slider FullWidth** div, as in the following:
   `<div class="Slider FullWidth" style="background-color: #000000; background-image: url (http://<www.mywebsite.com>/images/my-background-image.jpg)">`
5. Save and publish. Publishing time may vary depending on the size of the image. The background color is used as a backup for before the image is loaded, so be sure to pick the predominant color of your background image. Then replace the text and button with your own content.

**Note:** Choose an image that looks great at very wide resolutions, as the image will always stretch the full width of the browser. For best results, use landscape-sized images 1000-1400 pixels wide.

**Example:**

```
<div class="Slider FullWidth" style="background-color: #000000; background-image: url(http://upload.wikimedia.org/wikipedia/commons/4/47/Montreal_Twiligh...">
 <div class="SliderPage1">
  <div class="SliderContent">
<h1>New Montr&eacute;al Chapter</h1>
   <div class="SliderText">
<h2>Welcome Montr&eacute;al Members!</h2>
<p>We are thrilled to announce our newest chapter in Montreal, Quebec! We already have 10 new members including Chairman Felix Lapointe and Secretary Olivia Nadea. Join us in a celebration in downtown Montr&eacute;al!</p>
<br />
<p><strong>June 5, 2013<br />
Dieu du ciel, Montr&eacute;al</strong></p>
   </div>
   <div class="ActionButton">
<a href="[~]MontrealChapter" class="btn PrimaryButton MediumButton">Learn More</a>
   </div>
  </div>
 </div>
</div>
```

## Using sitemaps

### Site Builder

**Site Builder** allows you to manage sitemap navigation, websites, and URL shortcuts.

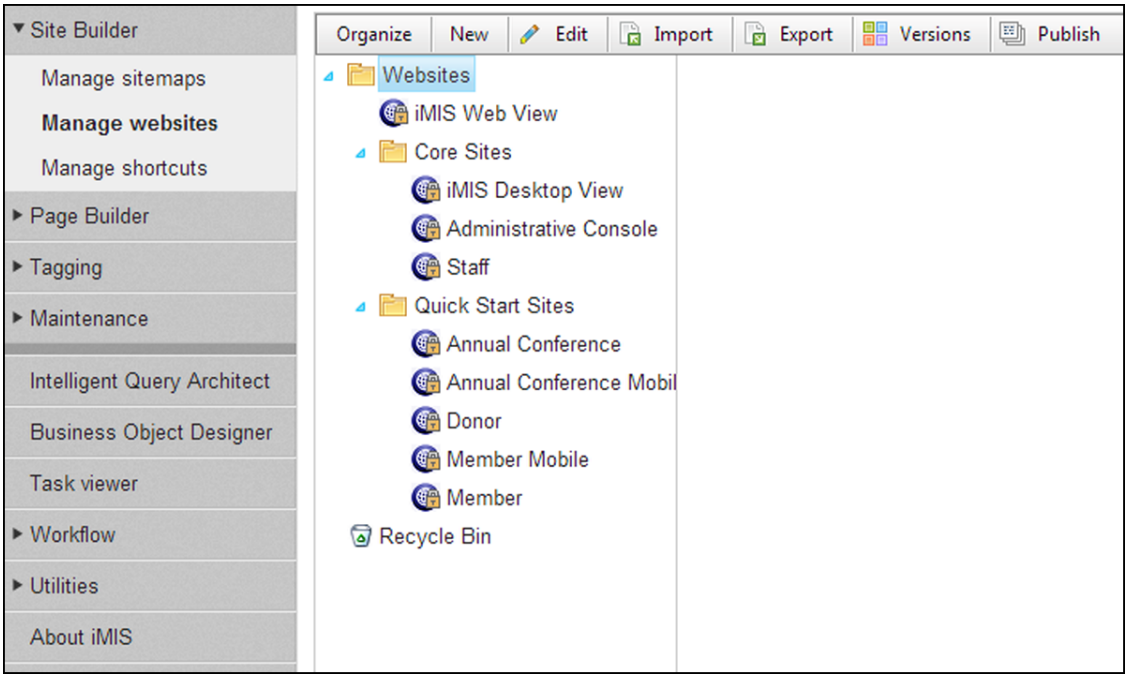
The sitemaps for **Core Sites** and **Quick Start Sites** are managed by ASI and should not be modified on your system. These sitemaps currently permit editing but any changes will be overwritten by future upgrades.

- **Core Sites**: Contains essential iMIS applications (such as **Staff**). Be prepared to recreate any customizations you introduce in the Core Sites.
- **Quick Start Sites**: Contains the growing set of sample websites (for example, **Member** and **Member Responsive**). Refer to Quick Start Sites for comparison, but make no changes.

The **Manage websites** utility organizes websites into folders that make clear their usage.

You can Creating a site and manage your organization's sites outside of these folders so that you can change, copy, and implement customizations, safe from overwriting by upgrades.

Click to view image




### Sitemaps and navigation items

Every iMIS content management website has a corresponding sitemap, in which you define a hierarchy of navigation items. Each navigation item defines the behavior of a single link to a web page of some sort, which can be:

- A content record located anywhere in the Page Builder content folder hierarchy. At run time on the website, IIS provides the rendered **.aspx** version of the most recently **Published** version of that content record.
- An ASI-developed dynamic web page that is available for use on all iMIS content management websites. Some of these pages provide standard website functionality such as a dynamic **Sitemap** page, while others provide specific features from the Public view of iMIS.
- A manually coded **.aspx** or **.html** file located anywhere in the IIS **Physical Path** associated with the IIS application that is used for hosting iMIS content management websites.
- A page located on an external website completely outside of the iMIS content management environment.

  You can nest navigation items inside of other navigation items, creating a hierarchical structure. The structure that you create for the sitemap hierarchy is very important for two reasons:

- This is what the system dynamically renders as the structure of a **Sitemap** page on iMIS content management websites.
- The position of a navigation item in the hierarchy (the root node is level 0 of the hierarchy) determines whether that navigation item is automatically displayed in the various navigation areas of website pages. This automated display can be suppressed on a per-navigation item basis, and you can force a navigation item to be displayed in specific navigation areas even if it would not normally be displayed there by the automated display handling specified in the definition of each navigation area.

  The specific ASI-developed control used in the website's master page for the rendering of each navigation area also affects whether navigation items are rendered in the various navigation areas. For more information, refer to Concept: navigation areas and breadcrumb areas.

  The website's sitemap is automatically created when you define a new iMIS content management website, and is given the same name as the website. Currently, iMIS content management supports one sitemap per website. You cannot delete or change the name of a sitemap. Instead, you define sitemaps by adding and removing navigation items,

rearranging navigation items in the sitemap hierarchy, and changing the definition of individual navigation items.

> **Note:** In content records, you can also hard-code links to other content records or external content by using **ContentReference** and **ContentLink**, but unlike navigation items, these hard-coded links cannot be dynamically displayed or hidden by the system. Instead, they are static links that are always visible in rendered pages.

Each sitemap will have a **Status**. The **Status** identifies when the sitemap is in a **Working**, **PublishPending**, **Submitted**, **Published**, **Inactive**, or **Active** state. Expand the status to see more details, including who created the record, who modified it last, and dates of these changes:

- Content records in a **Working** state have been saved in the iMIS database, but the latest changes have not been made active on the associated iMIS websites by the associated publishing servers and their corresponding publishing service. The **Publish** command queues the content record to the associated publishing servers, during which the content record is in a **PublishPending** state and can be viewed in the **Pending Requests** detail for the associated publishing servers. After each publishing server has successfully processed the publishing request, the latest changes become visible on the associated websites and become active within iMIS (indicated by a **Published** status).
  If a staff user does not have content authority group (CAG) **Content Approver** permissions, they see a **Submit** command instead of a **Publish** command on the toolbar. The **Submit** command queues a publishing request to the Page Builder **Task List** for all content authority group members with **Content Approver** permissions. Only a person with **Content Approver** permissions in at least one content authority group can actually publish content records.
- For all other definition objects, the publishing process is less complex and does not involve content authority group permissions, publishing servers, or the iMIS publishing service. When the object is in a **Working** state, the latest changes have been saved in the iMIS database, but they have not yet been made active in iMIS. The **Publish** command makes the latest changes active in iMIS.

The **This navigation item is a break** option defines the navigation item as a special **break item** that:

- Is rendered as a simple horizontal line in the secondary navigation area of an iMIS website
- Disables all other definition fields for the navigation item
- Creates system-generated values for the **Navigation Link Text** and **Navigation Folder Name** (This folder name should contain no spaces since the URL is built off of this name) When cleared, all definition fields for the navigation item are enabled.

### Configuration options: sitemaps (navigation items)

This section describes the fields on the **Properties**, **Options**, **Workflow Management** and **Access Settings** tabs. These fields control the properties of the navigation items within each sitemap defined in the system. Go to **RiSE > Site Builder > Manage sitemaps**.

Select a sitemap from the drop-down list, and then do one of the following:

- Select **New > Website Navigation Item**.
- Click **Edit**.

Properties tab

Navigation Link Text

Specifies the anchor text that is used for the links representing this navigation item throughout the iMIS content management website. This value must be unique among all sibling navigation items in the sitemap tree.

Navigation Folder Name

Specifies the name of this navigation item within the sitemap tree. This value is automatically generated by the system to be a valid hierarchical part of a URL (the path of folder names in a long URL) when you enter the **Navigation Link Text**. For example, if there are spaces in the value that you specified in the **Navigation Link Text** field, they are automatically converted to underscore characters in this field.

If you manually change this value, you must use a value that web browsers will correctly parse as a valid hierarchical part of the URI scheme used in URL syntax. You must also ensure that this value is unique among all sibling navigation items in the sitemap tree.

Tool Tip Description

Specifies short help text that pops up when the user hovers over the link in the navigation. Leave this field blank if you do not want to show a **Tool tip**.

Content or URL to Link to

Specifies the target of the navigation link. You can specify a shortcut, an absolute URL to any website, a relative URL to pages within the website associated with this sitemap, or you can click **select** to browse for a content record.

> **Note:** If **This navigation item is the Home link for the sitemap** is selected for a website (**Options** tab), be sure to enter **Default.aspx** in the **Content or URL to Link to** field. **Default.aspx** is the default page used when a link does not specify a page.

You can specify this value in the following ways:

- Specify a shortcut. To use a shortcut, enter a tilde character followed by a forward slash before the name of the shortcut. For example, **~/GiveNow**.
- Browse to any content record defined in the system.
- Specify a root-relative URL to a manually coded **.aspx** or **.html** file located anywhere under the root ( **~** ) of the physical path associated with the IIS application or IIS website that hosts your iMIS content management websites. For example, **~/handCodedPages/myPage.aspx**.

  > **Note:** Be sure to use forward slashes ( **/** ) for the segment delimiters.

- Specify an absolute path to a manually coded **.aspx** or **.html** file located anywhere in the IIS folder hierarchy of the **Default Web Site**. This is useful for linking to files that are outside of the physical path of the IIS application or IIS website that hosts your iMIS content management websites. The root of the absolute path is the IIS **Default Web Site**, which must be represented by a single forward slash (/), and you must also use forward slashes to delimit the path segments. For example, the absolute path to an **.aspx** file located in a first-level virtual directory named **SiteX** is **/SiteX/externalPage.aspx**.
- Specify an absolute URL to a page on an external website. For example, **http://-docs.imis.com/**.

URL Parameters

Specifies a string to append to this navigation item's URL. The string can be one or more parameters that will pass data to the parameter-collection web user control in the content type associated with a custom content item that is used in the content record to which this navigation item points. None of the standard iMIS content items use parameter-collection web user controls that accept this type of input in their associated content types. The specific control is defined in the **URL to the control or page that is used to collect parameters for content items of this type** field in the content item's corresponding content type.

Each parameter must contain a name and a value. Separate multiple parameters with an ampersand. For example, **name1=value1&name2=value2**.

> **Note:** iMIS encodes the characters entered into the **URL Parameters** field. For example, if you enter the URL parameter **ID=[LoggedInUserId]**, it will show as **%bLoggedInUserId%5d** in the URL. If you have code that checks for special characters in the URL, you must decode the URL before looking for those special characters.
>
> iMIS does not encode the equals sign (**=**), ampersand (**&**) and question-mark (**?**) characters.

Breadcrumb Name

Specifies the text displayed for the navigation item in a breadcrumb path, if breadcrumbs are enabled for the iMIS content management website. This text must be unique among all sibling navigation items in the sitemap tree.

Hide on this page

When selected, this option prevents the Breadcrumb Name for this navigation item from being displayed in a breadcrumb path.

Override Content Title

Specifies the text to use to override the title bar. This title appears on the content page pointed to by this navigation item. Leave this field blank to allow the content's assigned

title to display.

Navigation Code (for use by developers)
This field allows developers to hard-code links to this navigation item without worry about the text or location of the navigation changing later. This field specifies a URL alias for the navigation item that will stay the same even if this navigation item is moved within the sitemap tree or if the **Navigation Folder Name** is later changed. Navigation codes allow you to identify navigation items without the need to refer to the full path or underlying GUID for that item. They can be used in a variety of ways, including:

- Creating links in IQA query results
- Creating links in search results for the Common Search
- Creating target links in ASPX web pages to redirect users to another page
- Creating links in the Big Button Panel

A navigation code must be unique among a given sitemap. If a navigation code is unique among all navigation items that share the same IIS website root, which is defined from **Site Builder > Manage websites > Properties** of a website, then it can be used in a URL without the website name (such as **http://mydomain.com/StoreHome** instead of **http://mydomain.com/PublicSite/StoreHome**).

Image URL
Enter an image URL or select an image to display next to the navigation item.

CSS Class
Specifies one or more CSS classes to apply to the navigation item. For example, **class1 class2**.

Folder containing template content
Defaults to **Inherit from parent**, which you can disable to specify a different folder, such as for content that is shared across areas or websites.

Workflow Management tab
Remove this navigation if it has not been published within *n* days
Specifies the expiration interval for this navigation item. When expired, the navigation item is no longer rendered on iMIS content management websites, but the navigation

item remains in the system with a status of **Expired**. Manually republishing the navigation item makes it appear again on the iMIS content management websites and resets the expiration interval.

The expiration interval can be overridden by specifying a value of **0**.

Notify this person 10 and 5 days before removing this navigation
Specifies the contacts that should receive email notifications before the navigation item expires. This field is enabled only when the **Remove this navigation if it has not been published within *n* days** field has a non-zero value. The list comprises only those contacts who have **Navigation Editor** content authority group permissions in at least one content authority group.

Options tab
Open the link in a new window
Select this option to open the link destination page in a new window.

Link should be secure (HTTPS)
The content record that is the target of this navigation item is displayed through a secured connection (SSL) to the web server, but only if both of the following conditions are met:

- The website associated with this navigation item's sitemap has a valid **https://** URL listed in the **Secure URL(s) pointing to the IIS website root** field in their definition (in the Staff site, go to **RiSE > Site Builder > Manage websites > Propeties** tab).

  **Note:** Restart IIS whenever you change the **Secure URL(s) pointing to the IIS website root** setting. Note that **localhost** is not a valid **Secure URL**.

- You have installed valid site certificates in IIS for each web server that hosts this website. If the content record that is the target of this navigation item ends up being served by an iMIS content management website that does not meet the above criteria, the content record will be displayed through a non-secured connection (**http://**).

  **Note:** If other navigation items point at the same content record, but those other navigation items do not have the **Link should be secure (HTTPS)** checkbox

selected, they will not display the content record through a secured connection. However, if the **Content is secure (https://)** checkbox is selected on the target content record, then it does not matter how this checkbox is set on any navigation items that point at the content record – the content record will always be displayed through a security connection regardless of which link is used to get to the content.

This navigation item is the Home link for the sitemap

When this option is selected, this is the navigation item to which users are returned when they click the **Home** button.

This navigation item is active

Select this option to make this navigation active on the website. Deselect this option to make this navigation item inactive on the website.

**Note:** Although active, the navigation item does not appear on the site if the **This navigation item is hidden** option is selected.

This navigation item is hidden

The navigation item is hidden from the end user per the automated display rules defined in each navigation area when this option is selected. This option does not apply to any navigation item selected to be displayed in the **Auxiliary** and **Footer** navigation areas. If you do not want a navigation item to appear in those areas, you must clear the **Auxiliary** and **Footer** checkboxes from the **Show in the following navigation area** options.

**Note:** The Primary Navigation ignores the sitemap order for any navigation item marked **This navigation item is hidden**. To enable the sitemap order, deselect this option.

This navigation item is expanded by default

The rendered list of navigation links is expanded by default to show the child links.

This navigation item only displays for unauthenticated users

Select this option to hide the navigation item from authenticated users. This option is best used on public-facing iMIS-generated websites. For example, enable this option to display a **Create Account** link to unauthenticated users only.

Always show in the following navigation areas
These options specify the areas in which this navigation item is displayed. This applies to the top level of the navigation hierarchy only (the one that is always visible). The navigation item can still be used as a sub-navigation item whether this option is selected or not.

- This option is the only mechanism for making a navigation item appear in the **Auxiliary** or **Footer** navigation areas. If the link is flagged as a hidden navigation item, the link is still displayed in the **Auxiliary** and **Footer** navigation areas if those options are selected. If you do not want a navigation item to appear in the **Auxiliary** and **Footer** navigation areas, you must clear the **Auxiliary** and **Footer** checkboxes.
- Remember that these navigation areas are defined in iMIS, but not all website master pages will necessarily include them.
- The **Inherit from Parent** checkbox shows this navigation item if the parent is also displayed.

Access Settings tab

> **Note:** The **Access Settings** security options are the same throughout iMIS (see Using Access Settings). For best performance, use Preconfigured security sets.

Apply changes to all descendants
When this option is selected, any changes to this section flow automatically to all descendant definition objects when saved. When this option is deselected, changes to this section apply only to the current definition object. This checkbox usually appears only on Document System folder objects.

Use a preconfigured security set
When selected, this option allows a Staff user to specify a set of permissions for accessing objects. Each security set contains a predefined access list and permissions that remain constant. Refer to Preconfigured security sets, for object-level access for

information about preconfigured security sets.

Make this available to

When this option is selected, a Staff user can specify the **Specific Roles**, **Specific Groups**, or **Specific Users** that might have access to the community.

> **Note:** Granting a user, group or role any level of access to the community (even **Read**) gives the user, group or role the ability to view the community, as well as the ability to create posts and edit their own posts.

**Tips**

- Choose which sitemap to edit by using the drop-down list above the sitemap tree.
- | Red bars next to navigation items indicate a **Working** state (unpublished).
- Drag and drop navigation items in the sitemap tree to reorganize them:
- Child position: Drop navigation item **A** onto navigation item **B** to make **A** subordinate to **B** (**A** becomes a child of **B**, and **B** is the parent of **A**).
- Sibling position: Drop navigation item **A** into the space below navigation item **B** to make **A** follow **B** at the same level (**A** becomes a sibling of **B**). A dotted line appears below **B**.
- URL paths for navigation items map relative to the IIS website root to which this sitemap's website is mapped in the **Properties** section of the **Manage websites** window. Several websites can map to the same IIS website root, and some of the properties that you define in this window need to be unique across all sitemaps that ultimately map to the same IIS website root. Therefore, it helps to identify which other websites might share the same IIS website root when working with this window.

> **Warning!**
>
> The sitemaps for **Core Sites** and **Quick Start Sites** are protected for use by iMIS. The default Document System permissions for these sitemaps permit editing by SysAdmins only.

**Defining sitemaps and navigation items**

The website's sitemap is automatically created when you define a new iMIS content management website, and is given the same name as the website. Currently, iMIS supports

one sitemap per website. You cannot delete or change the name of a sitemap. Instead, you define sitemaps by adding and removing navigation items, rearranging navigation items in the sitemap hierarchy, and changing the definition of individual navigation items.

Defining a sitemap

1. Go to **RiSE > Site Builder > Manage sitemaps**.
2. Select a sitemap you want to define in the drop-down.
3. In the sitemap tree, select the location where you want to create the new navigation item.
4. Do one of the following:
   - Click **New > Website Navigation Item** to create a new navigation item.
   - Click **Edit** to modify a selected navigation item.
   - Click **Organize > Delete** to delete a selected navigation item.
5. Define the navigation item's **Properties**, **Workflow Management**, **Options**, and **Access Settings**.
6. **Save** and publish your navigation item.

Publishing a sitemap

When you first create a navigation item, or when you make changes to an existing **Published** navigation item, the navigation item has **Working** status, and that particular version of the navigation item is not yet visible on the associated iMIS content management website.

Do the following to publish this version of the navigation item and make it visible on the associated iMIS content management website:

1. Go to **RiSE > Site Builder > Manage sitemaps**.
2. If the navigation must be published, it is marked by a red bar. Select the navigation item.
3. Click **Publish**. Accept the default options, and click **OK**. The red bar will no longer be visible, and the status of the navigation item changes to **Published**.

Modifying a sitemap

You can modify the sitemap hierarchy by dragging and dropping navigation items into new locations. Do the following to reorganize navigation items within the sitemap hierarchy:

- Drop navigation item **A** onto navigation item **B** to make **A** subordinate to **B** (**A** becomes a child of **B**, and **B** is the parent of **A**).
- Drop navigation item **A** into the space below navigation item **B** (a dotted line appears below **B**) to make **A** follow **B** at the same level of the hierarchy (**A** becomes a sibling of **B**).

You must have at least one of the following Defining content authority groups (CAG) permissions in at least one content authority group to which you belong in order to create or modify navigation items:

- To create new navigation items, you must have **Navigation Creator** content authority group permissions.
- To modify the properties of a navigation item, you must have **Navigation Editor** content authority group permissions.

  To edit existing navigation items, you must have both **Read** and **Edit** Document System permissions on each navigation item. To delete existing navigation items, you must have **Delete** Document System permissions on each navigation item. The Document System permissions from the parent navigation item are copied into each newly created navigation item, but can later be changed.

  If you click the rendered link from a navigation item in an iMIS content management website and you receive the following message:

  `The requested content could not be loaded`

  This means that the navigation item's target content record has been deleted. To fix the navigation item, you must do one of the following:

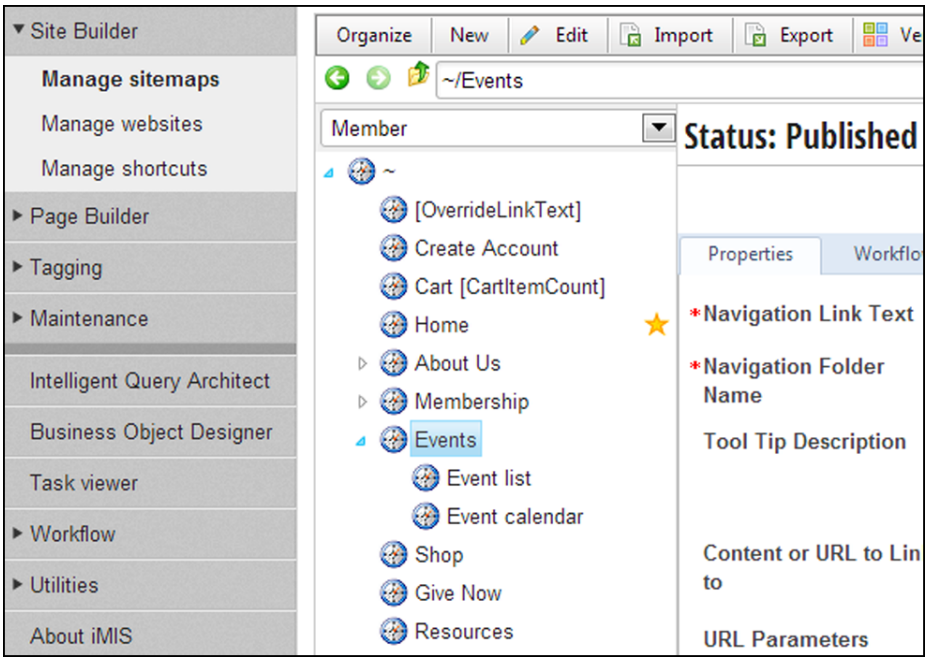
- Point the navigation item at a different content record.
- Remove the navigation item from the sitemap.

> **Warning!**
>
> The sitemaps for **Core Sites** and **Quick Start Sites** are protected for use by iMIS. The default Document System permissions for these sitemaps permit editing by system administrators only.

#### Modifying menus and task list items

Site Builder lets you quickly add, move, edit, and delete the items in your menus and task lists from your websites, without ever touching HTML or configuration files.

Click to view image




The structure of each website is a sitemap which you manage as a simple hierarchy of navigation items. Users see these as menus (tabs) and groups of task list items.

Editing task list items

As with most work you do in RiSE, changes you make to your sitemap are versioned so that you can revert to a previous iteration, and you can export and import sitemaps between systems.

1. Go to **RiSE > Site Builder > Manage sitemaps**.
2. Select a site in the drop-down you want to reorganize.
3. Drag and drop to change the order of menus and task items.

   **Note:** Dropping an item on top of another item places the first item as a subordinate of the second item. To move an item up or down in a list, drop the item onto the dotted line that is temporarily displayed between items during the move.

4. At the bottom right, click **Save**. The **Status** section header reports **Working**.

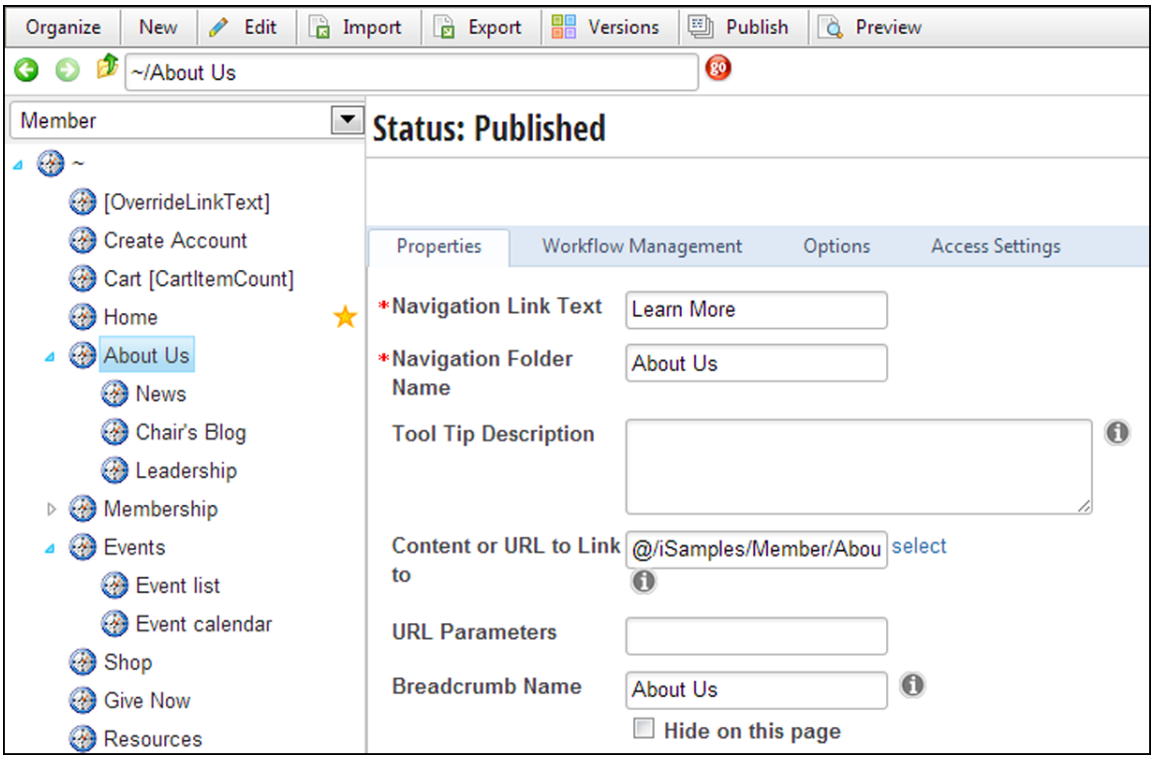
5. Click **Preview** on the toolbar to check your changes. You can correct any issues before publishing.
6. Click **Publish** on the toolbar.
7. Click **OK**. A window is displayed that reports the publishing success.
8. Click **Close**.

Changing menus and task list items

Do the following to change menus and task list items.

1. Go to **RiSE > Site Builder > Manage sitemaps**.
2. Select a site in the drop-down you want to modify.
3. Select the navigation item you want to change.
4. In the editing window that is displayed, you can edit the navigation item and edit the **Properties**, **Workflow Management**, **Options**, and **Access Settings** options. For example, to rename **About Us** to **Learn More** on your site, select the **About Us** navigation item and edit the **Navigation Link Text** field.

   Click to view image




5. Click **Save**. The **Status** section header reports **Working**, and the navigation item is marked with a red bar, indicating changes that are yet to be published.

6. Click **Preview** on the toolbar to check your changes. You can correct any issues before publishing.
7. Click **Publish** on the toolbar.
8. Click **OK**. A window is displayed that reports the publishing success.
9. Click **Close**.

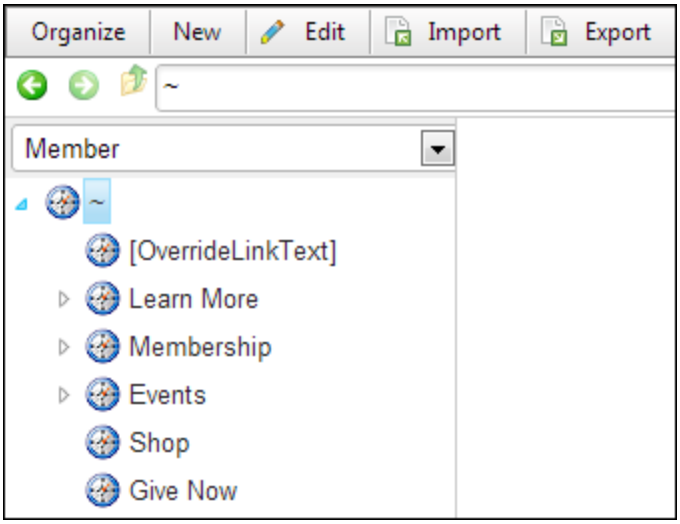
Adding new menus and task list items

Do the following to add new menus and task list items:

1. Go to **RiSE > Site Builder > Manage sitemaps**.
2. Select a site in the drop-down you want to modify.
3. Select the navigation item (parent) that you want your new item (child) to appear below.

   To add a new **Resources** tab to your site, select the top node on the sitemap:

   Click to view image




4. Select **New > Website Navigation Item**. Specify the new item's Properties, Workflow Management, Options, and Access Settings options.
5. Drag-and-drop to change the order of menus and task items, if necessary.

   **Note:** Dropping an item on top of another item places the first item as a subordinate of the second item. To move an item up or down in a list, drop the item onto the dotted line that is temporarily displayed between items during the move.

6. Click **Save**. The **Status** section header reports **Working**.

7. Click **Preview** on the toolbar to check your changes. You can correct any issues before publishing.
8. Click **Publish** on the toolbar.
9. Click **OK**. A window is displayed that reports the publishing success.
10. Click **Close**. The **Status** section header reports **Published**, and you can follow the **URL** link to see the changes on the live site.

## Using process automation

By using automated tasks, you can easily engage users without having to repeatedly complete time-consuming processes. You can set up a task one time, and it automatically runs when needed, ensuring perfectly tailored and timed communications with your organization's contacts with minimal effort from staff.

The following tasks can be automated:

- Displaying alerts to website users
- Sending scheduled emails
- Sending scheduled reports

You must have the advanced tasks license key to create, copy, edit or delete tasks.

## Using the Content Collection Organizer

The Content Collection Organizer content item enables users to create a collection of pages and assign names to the tabs or headers for each page. In the simplest example, those pages are displayed, the user can access tabs in any order desired, and information is saved independently on each page.

Users accessing a content record with the Content Collection Organizer will only see the tabs that they are permitted to view.

On the other hand, if members with correct access settings cannot see particular tabs, the culprit could be broken links. Broken content links will result in tabs not appearing to your members. Authorized Staff can simply click on the tab to troubleshoot and fix the broken link.

### Displaying content pages in tab format

In Content Collection Organizer, content pages can be displayed in a tab format. The following image shows an example content item with tabs across the top, configured to

display different content pages.




You simply determine the number of tabs you want to display, and provide names for each tab. Then, point each tab to the content you want to display.

### Using the Content Collection Organizer to show or hide tabs

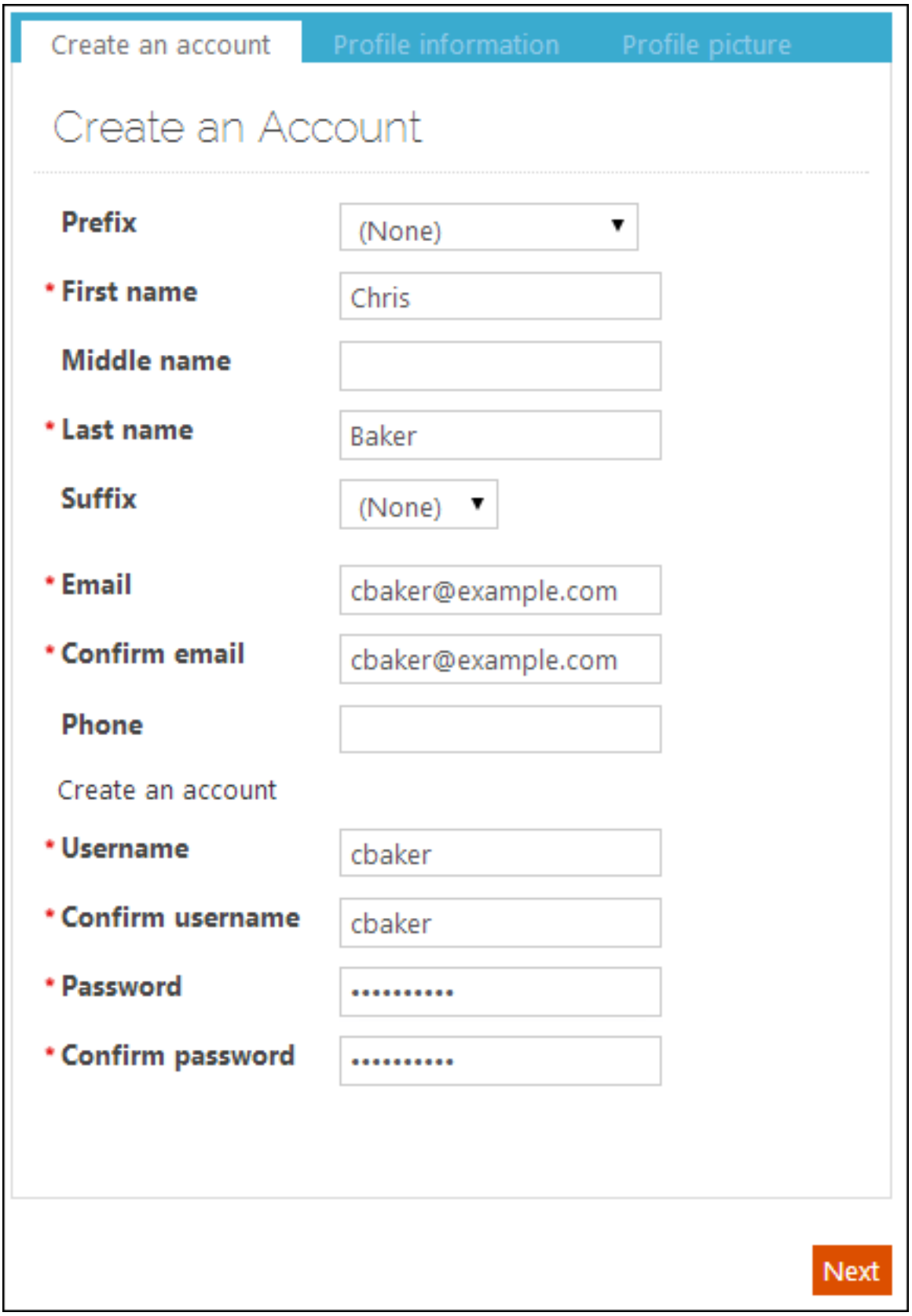
Users accessing a content record with the Content Collection Organizer might see tabs depending on the access granted. See Using Access Settings to set specific permissions for content tabs. You can also delete or break content links to make tabs no longer appear.

> **Note:** Do you have members with correct Access Settings that can't see a particular tab? Planned or unplanned, broken content links will result in tabs not being displayed to your members. Authorized staff can simply click on the tab to troubleshoot and fix the broken link.

### Using the Content Collection Organizer as a wizard

You can configure the Content Collection Organizer to function as a wizard. The wizard can guide a user through multiple steps of an end-to-end process, for example, setting up a new account. When the Content Collection Organizer is enabled as a wizard, **Next** and **Previous** buttons are displayed, allowing users to navigate between the steps. Users can navigate to any previous tab, but can only navigate forward to the next tab in the workflow

sequence. The user can also navigate with a browser's Forward and Back buttons, but the data is not committed until the user clicks **Next**.


Create an account
Profile information
Profile picture
Create an Account
Prefix
(None)
First name
Chris
Middle name
Last name
Baker
Suffix
(None)
Email
cbaker@example.com
Confirm email
cbaker@example.com
Phone
Create an account
Username
cbaker
Confirm username
cbaker
Password
Confirm password
Next

As you add steps to the wizard, you define a name for the step, as well as select the content you want to display on that step. You can also define where the wizard will take a user if a step is successful or fails.

Each page in the workflow is validated when the user clicks **Next**. If any of the data on a page is incomplete or incorrect, an error message is displayed and the user cannot proceed to the next step until the error is corrected.

You can also define the destination to which users are directed when they click **Finish** in the wizard. To do this, you must define the **Finish button redirect**. Select the **Content record or URL** radio button, then select the content or URL to which you want the user redirected. This defines the action that will happen once a user clicks the **Finish** button in a wizard process.

> **Note:** It is not recommended to point to content records that contain embedded content records. This can interfere with the behavior of pop-up windows. Also, if you are creating a wizard that is intended to be displayed in a pop-up window, it is not recommended to add any other content items to the wizard content record.

### Creating an account using the Content Collection Organizer as a wizard

You can set up a Content Collection Organizer content item wizard to walk users through the process of creating an account. To do this, you must add a Content Collection Organizer content item to a content record.

Add a name for the Content Collection Organizer and a title, and make sure you select **Function as a wizard**. You can select the content to redirect a user to when they are finished with this wizard. Because we are walking users through the process of creating an account, let's redirect the user to their new account page upon completing this wizard. Select **@/iCore/Contacts/ContactLayouts/AccountPage** for the **Finish button redirect** content.

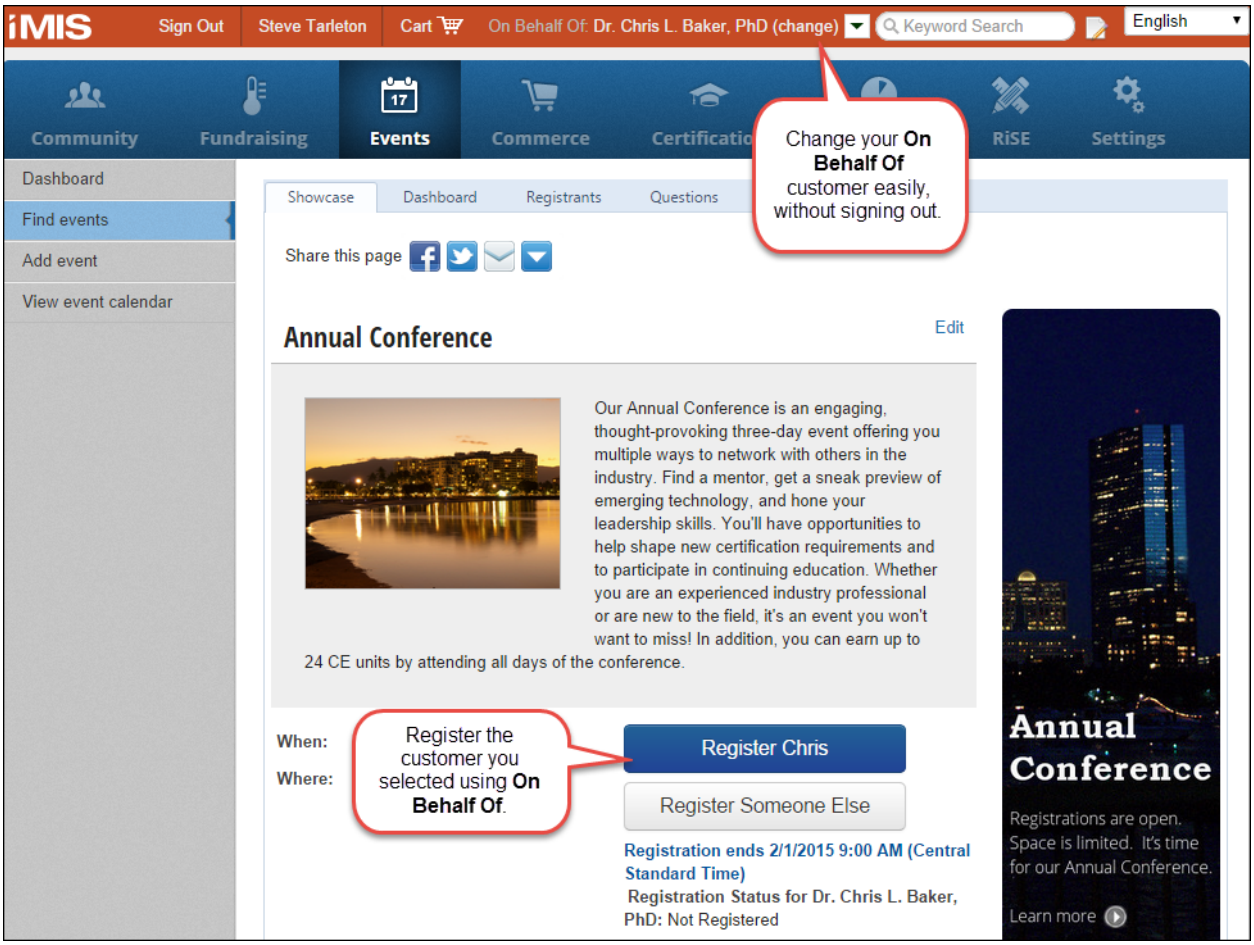
Now create a first step. This wizard is to create an account, so you are going to select a content record with a Contact Account Creator content item, for example, **@/iCore/Contacts/CreateAccount**.

The Contact Account Creator content item must have specific configuration options set. First, you must select **Hide for authenticated users**. You must also select the **Include option to create an account** and **Require username and password** options. Finally, the **Redirect to** option must be set to **Do not redirect**.

You can now add as many additional steps as you like. On the last step, a **Finish** button will be added. You have already added a redirect link for this button. Click **OK** to save your wizard, save and publish, and add this content record to your website.

### On Behalf Of: Customer service mode

Your site is not just for self-service: **On Behalf Of** gives your staff a customer service mode, to complete website commerce on behalf of your customers. When requests for event registrations, product orders, and even membership renewal payments come in by phone, fax, or email, **On Behalf Of** lets you conduct a secure session during which you can add items to a customer's cart and complete the transaction for them, all without signing out of your own session.




Separating carts

To avoid confusion and to protect your customers' privacy as to which items they might have added to their own carts, **On Behalf Of** sessions create and save carts that are completely separate from those your customers see. For added security, items yet to be purchased are saved in these carts, but any cardholder information that might have been entered is not saved.

For example, if you added a registration to a member's cart but have not submitted it, then the member will not see the registration in their cart the next time they sign in. However, when you return to registering the member on their behalf, you see their cart restored to the state it was in when you left the cart. Once you complete a purchase on the member's behalf, both the member and you can see the order through the member's account page.

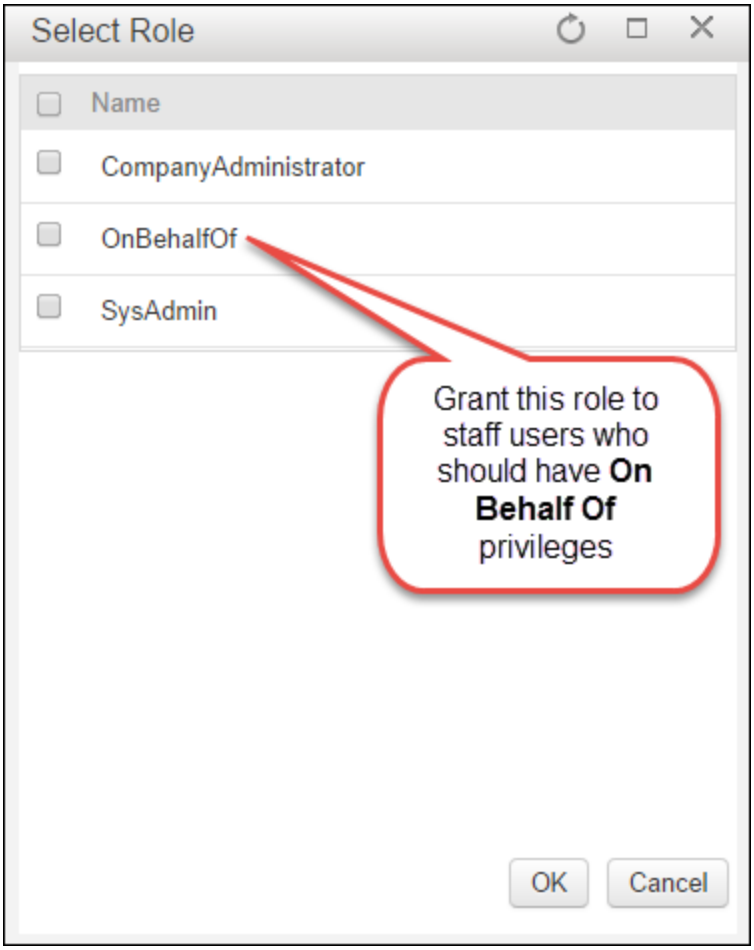
**Note:** You can use the audit trails to track which logged-in user performed each action that affected an **On Behalf Of** transaction.

Acting On Behalf Of

To protect the security of contact data, users must be added to the security role **SysAdmin** or **OnBehalfOf** to perform actions on behalf of another contact (individual or organization). Do the following to provide a staff member **On Behalf Of** privileges:

1. Go to **Settings > Security administration > Users**.
2. Find and select a user.
3. Under **User Information** click **add role**.

Click to view image




Changing or ending an On Behalf Of session

When you act on behalf of someone else, all of your commerce-related actions pertain to the target contact until you end the session by doing one of the following:

- Select a new target contact by clicking **(change)** next to the target contact.
- Clear the selected contact by clicking the down arrow next to the target contact and selecting **Clear**.
- Close the browser.
- Sign out of iMIS.

Displaying contact information

Acting on behalf of another contact controls the current cart, but it does not keep you from accessing information for other contacts. A content item determines whose cart and information to show and update based on the following logic:

- If the link's URL specifies an ID (such as for search results), the content item shows information for that contact.
- If not, the content item shows information for your **On Behalf Of** contact, if appropriate. For example, the Query Menu content item runs queries regardless of the target contact.
- Without **On Behalf Of**, the content item shows information for you, the logged-in user.
- If no one is signed in, the content item shows limited information.

For example, you could be working on behalf of one contact when you need to use the Directory to look up an address for another. You can drill down on information from those searches with no effect on your on-behalf-of contact: the content items pass the queried contact's ID on the URL to show you the information you need. Only when you take actions that add items to the cart is **On Behalf Of** enforced.

Click to view image




**Note:** The contact name link in the top navigation does not change: it always shows information for the logged-in user.

## Using the Content Browser utility

A standalone **Content Browser** utility lets you analyze all content across the entire Document System of any iMIS database. This tool helps you to see where content items are used, and how content is referenced by navigation. The Content Browser also allows you to identify and even delete orphaned content without having to locate the content through the Document System. This is especially useful since not all content is required to live in a Document System hierarchy.

Running the Content Browser

1. Back up the database so that it can be restored. You cannot undo permanent deletions.

**Warning!**

If you copy **ContentBrowser.exe** to a new system, you must reconfigure it:

a. Copy the **C:\Program Files (x86)\ASI\iMIS\Net\bin\ContentBrowser.exe** and **ContentBrowser.exe.config** files to the **...\net\bin** folder of an iMIS install.

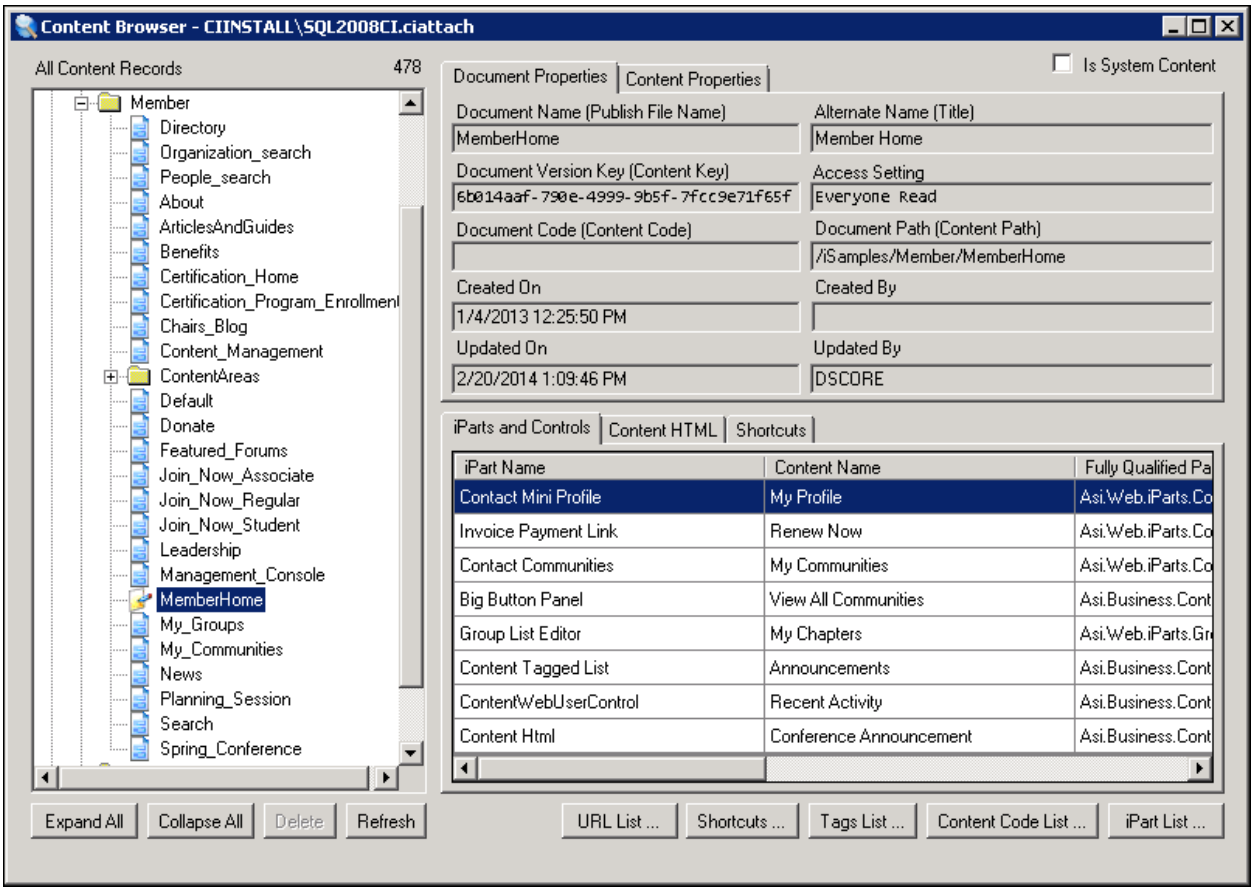
b. Edit the connection string in the **ContentBrowser.exe.config** file to point to the corresponding iMIS database on the new system.

1. Go to the **...\net\bin** folder and launch **ContentBrowser.exe**.

> **Note:** Content Browser can take some time to open, because it must load all the content in the database and scan all the navigation.

2. Verify the **[*server*].[*database*]** that is displayed in the title bar is the database to which you want to be connected.
3. Once Content Browser has loaded all content, you can navigate using the tree control. Use the **Expand All** and **Collapse All** buttons to help manipulate the display in the **All Content Records** area.
4. Click any content record to see it displayed.

Click to view image



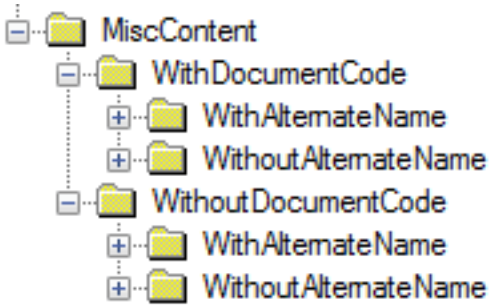
The tree-view shows all the content folders and content records found in the system. Clicking on any node will show information about that content. The right pane contains two tab controls: **Document Properties** and **Content Properties**. At the bottom of the tree control on the left are **Expand All** and **Collapse All** buttons that expand all the nodes in the tree view or collapse them all back to folders, respectively.

At the bottom of the tree control is a special node, **MiscContent**, which will show any content that is found that is not in the document system hierarchy. This content is divided into nodes by the following

- Records with document codes
- Records without document codes
- Records with alternate names/title
- Records without alternate names/title

  Most likely, any content found in the **WithoutDocumentCode > WithoutAlternateName** node can be deleted. However, because content does not have to exist in the Document System hierarchy, there could be valid content in any of these nodes, depending on how the content is referenced.

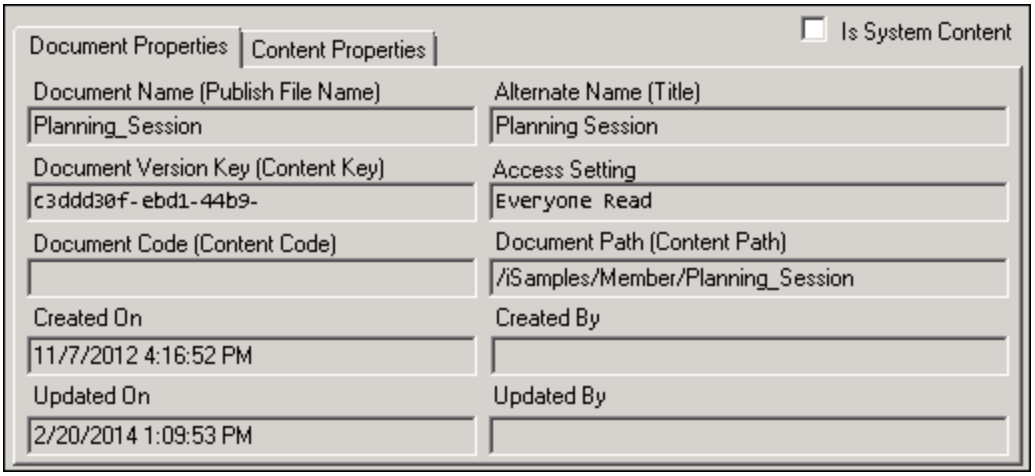
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### Properties tabs

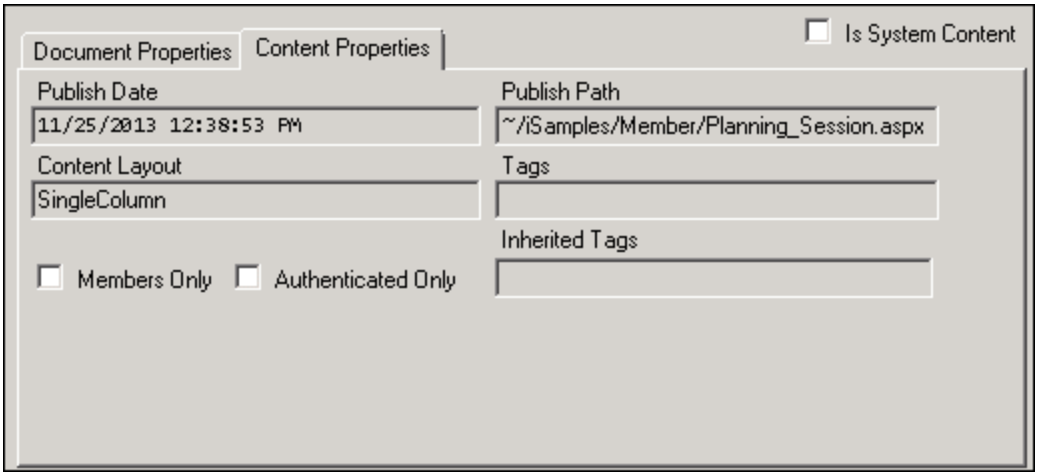
- **Document Properties** – Displays all document-related properties, including
  - When the document was last updated
  - Who updated the document
  - The document name
  - The path to the document in the document system
  - The access settings

Click to view image




- **Content Properties** – Displays all content-related properties, including
  - The relative publish path
  - The content layout
  - Content tags
  - Flags such as whether the content is for authorized (logged-in) users only

  Click to view image




### Content tabs

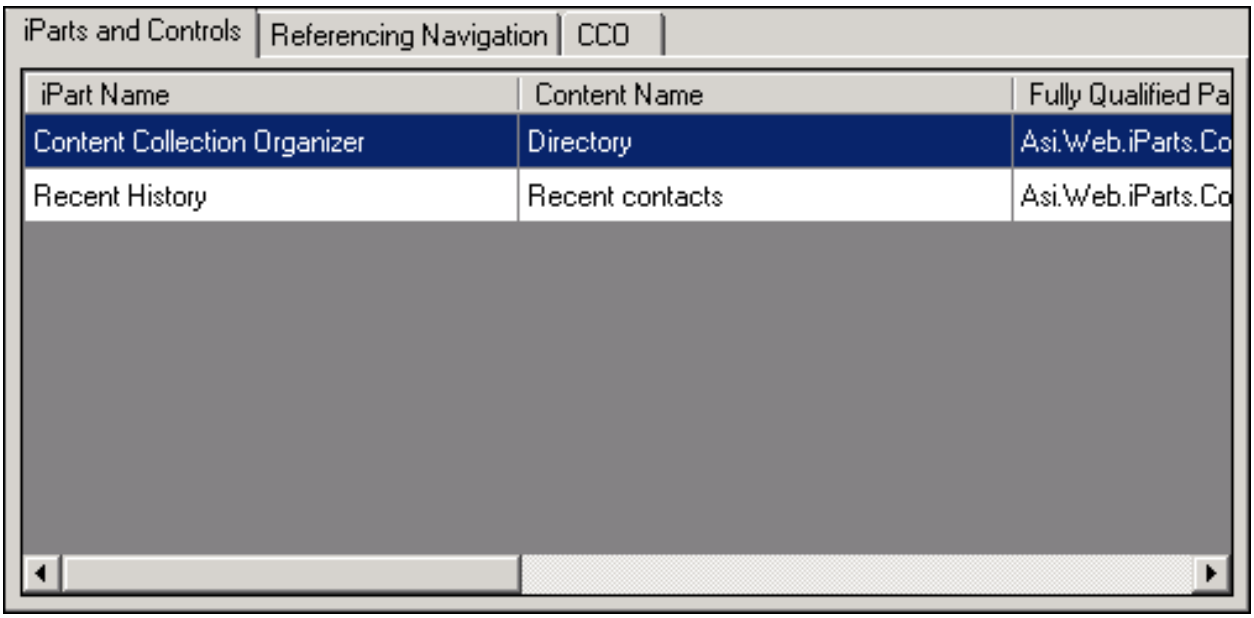
The content tab set can contain from 0 to 6 tabs, depending on the content selected.

Folders will show blank (0 tabs), while most content will show between 1 and 6 tabs

- iParts and Controls

  The **iParts and Controls** tab lists all the content items or controls hosted by the content. If this tab is not present, then the content does not contain any controls or content items. Each content item has a row on the tab, containing the name of the control, the name of the content, the fully qualified content item name (useful for developers), and the assembly name of the content item (useful for developers).

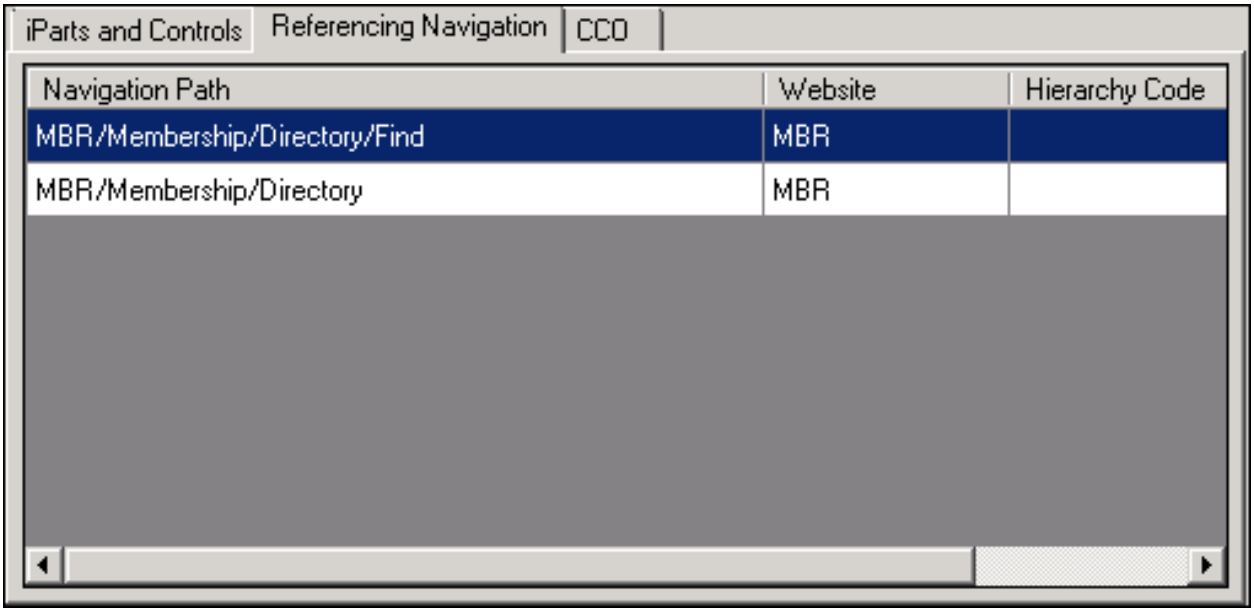
  Click to view image




- Referencing Navigation

  The **Referencing Navigation** tab is displayed if there are any navigation items that point directly to this content. You can see the navigation path, the website associated with the navigation, and any hierarchy code that is present.

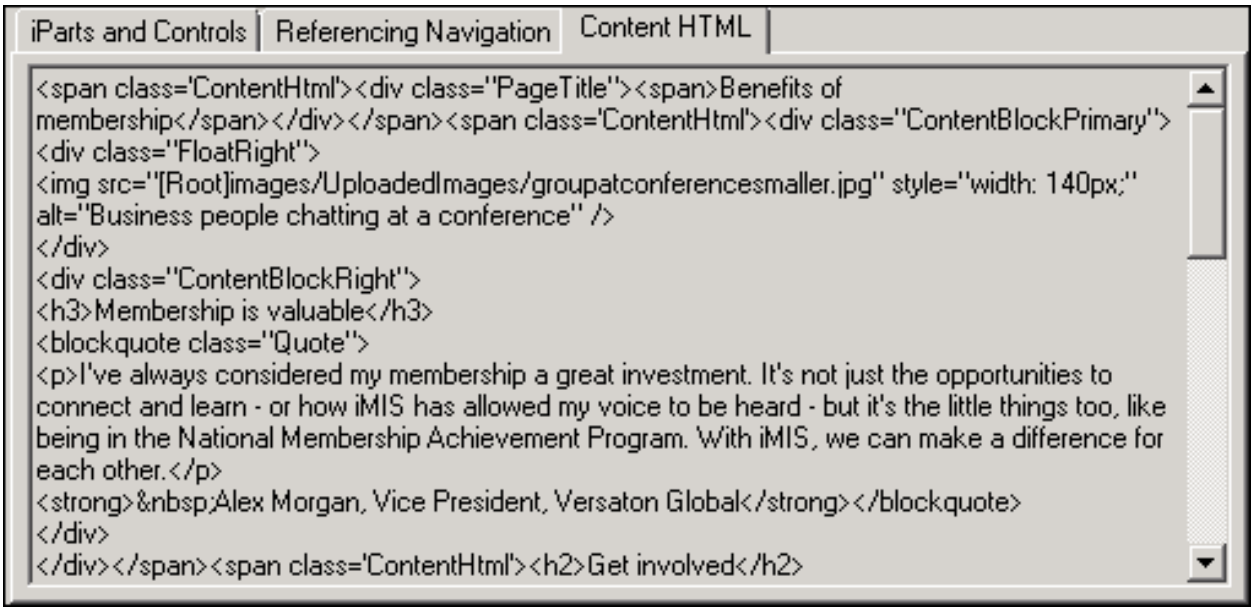
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- Content HTML

  The **Content HTML** tab is displayed if there is any HTML defined in the content. You can view the HTML, but you cannot edit the HTML.

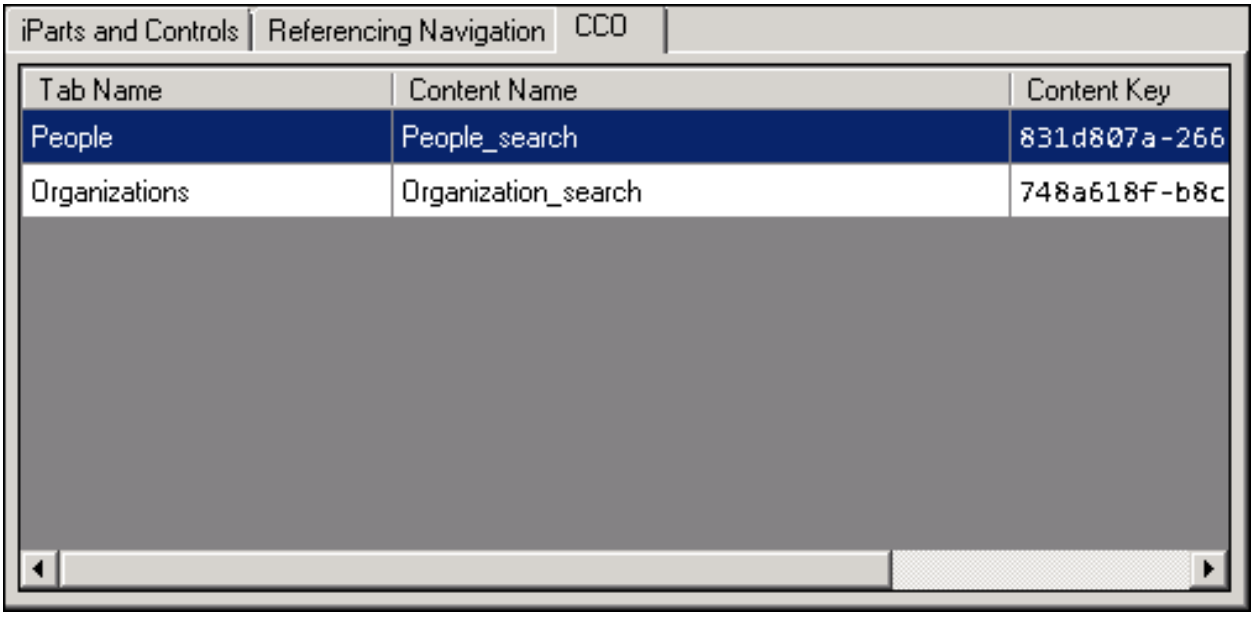
  Click to view image



> **Note:** If there are any clickable URL links in the Content HTML block, a drop-down listing all the URLs is displayed at the bottom of the Content HTML Tab. This drop-down initially appears blank. Click the down arrow to see all the URLs. If you select a URL, you are taken to the **URL List** so you can see any other content that also contains that same URL. See URL List for more information.

- CCO (Content Collection Organizer)
  The **CCO** tab displays the content referenced by any Content Collection Organizer present in the content. The Content Collection Organizer is a special content item that allows you to collect references to other content into a tab control. The information in this tab includes the names of all the tabs in the CCO control, the name of the content that they reference, and the content key. Double-clicking on any referenced content will take you to that content, selecting the content in the tree control, and displaying information about the content in the panes on the right side of the window.

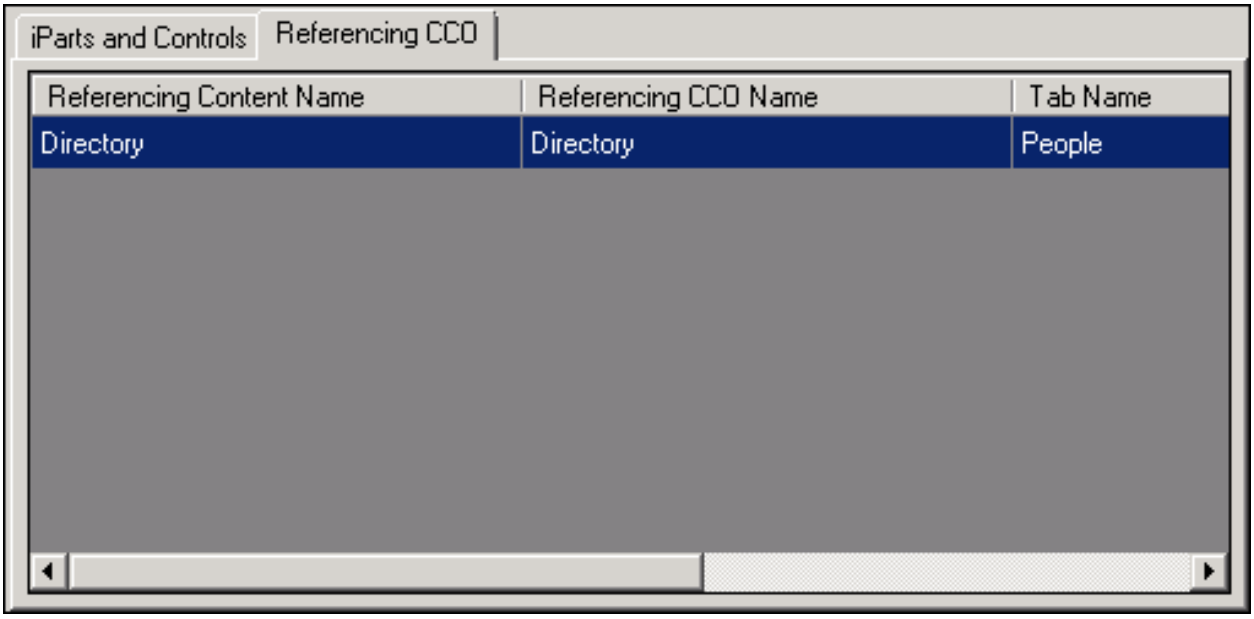
  Click to view image




- Referencing CCO
  The **Referencing CCO** tab displays any content that is referencing the currently selected content. It will show the referencing content's name, the name of the CCO control, and

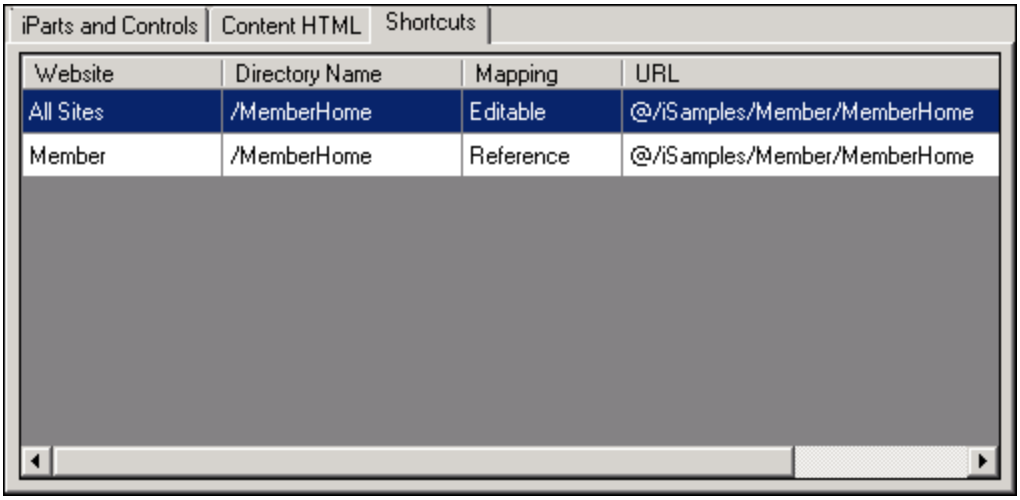
the name of the tab within the CCO control that is performing the referencing. Double-clicking the row will take you directly to the referencing content. This allows you to easily navigate between the content hosting the CCO, and the content the CCO references.

Click to view image




- Shortcuts
  The **Shortcuts** tab displays any shortcuts that are referencing the content. It will show the website, the directory name, the mapping type, and the URL string associated with the shortcut.

  Click to view image



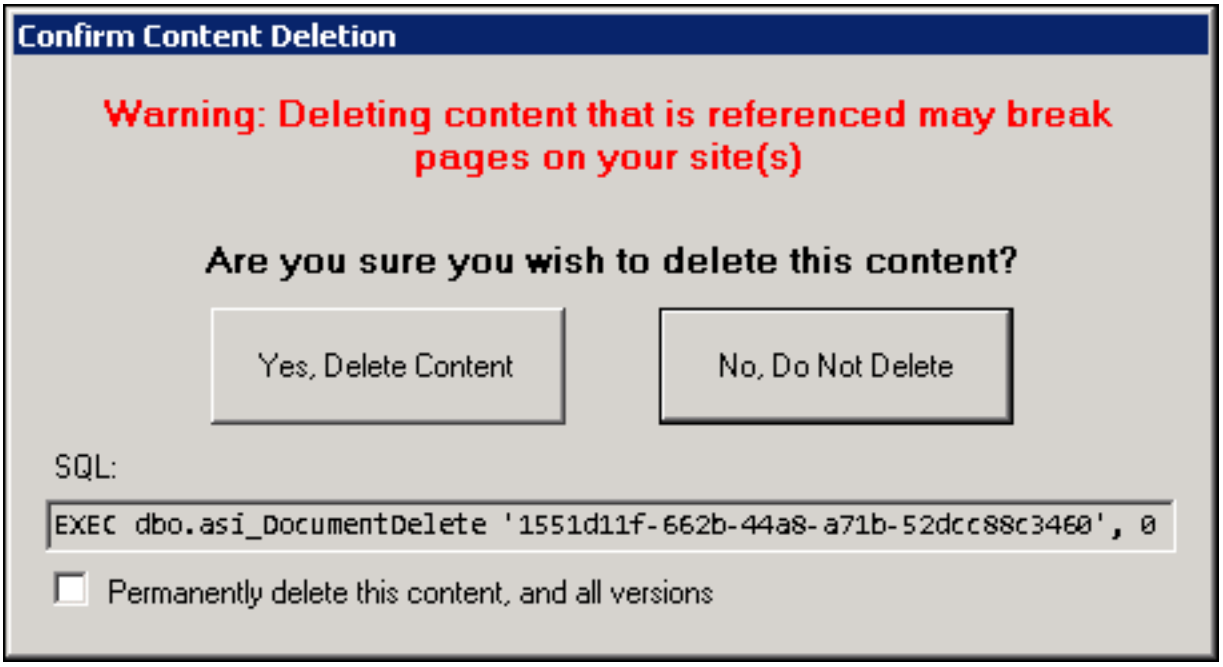
### Delete

The **Delete** button is enabled any time there is content selected that is

- Not a folder
- Not directly referenced by navigation
- Not directly referenced by a Content Collection Organizer content item

Be aware that other references might exist. There could be references to content codes, URLs, and codes embedded in HTML, references that are programmatically generated at run time, and so forth. For this reason, delete content at your own risk. If the button is enabled, it means that there are no direct references to the content of which this tool is aware. Ensure there are no other references to content in other places. If you are certain you want to delete the content currently selected in the tree control, click **Delete**. The following warning dialog is displayed:

Click to view image




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The **Permanently delete this content, and all versions** checkbox is clear by default, which means the content will be recycled. The content will be logically deleted, but still present. No rows are deleted from the database. Content deleted in this way could theoretically be recovered.

Selecting the **Permanently delete this content, and all versions** checkbox permanently deletes the content, including any archived versions or history, and removes the rows from the database. The only way to restore content deleted in this way is to restore from backup.

The **SQL** field shows the SQL script that is being run when the delete occurs. You can copy this SQL if you want to create a script for deleting content in bulk, for example, should you want to delete the same content from multiple databases.

> **Note:** Selecting the **Permanently delete this content, and all versions** checkbox changes the SQL displayed in the **SQL** field.

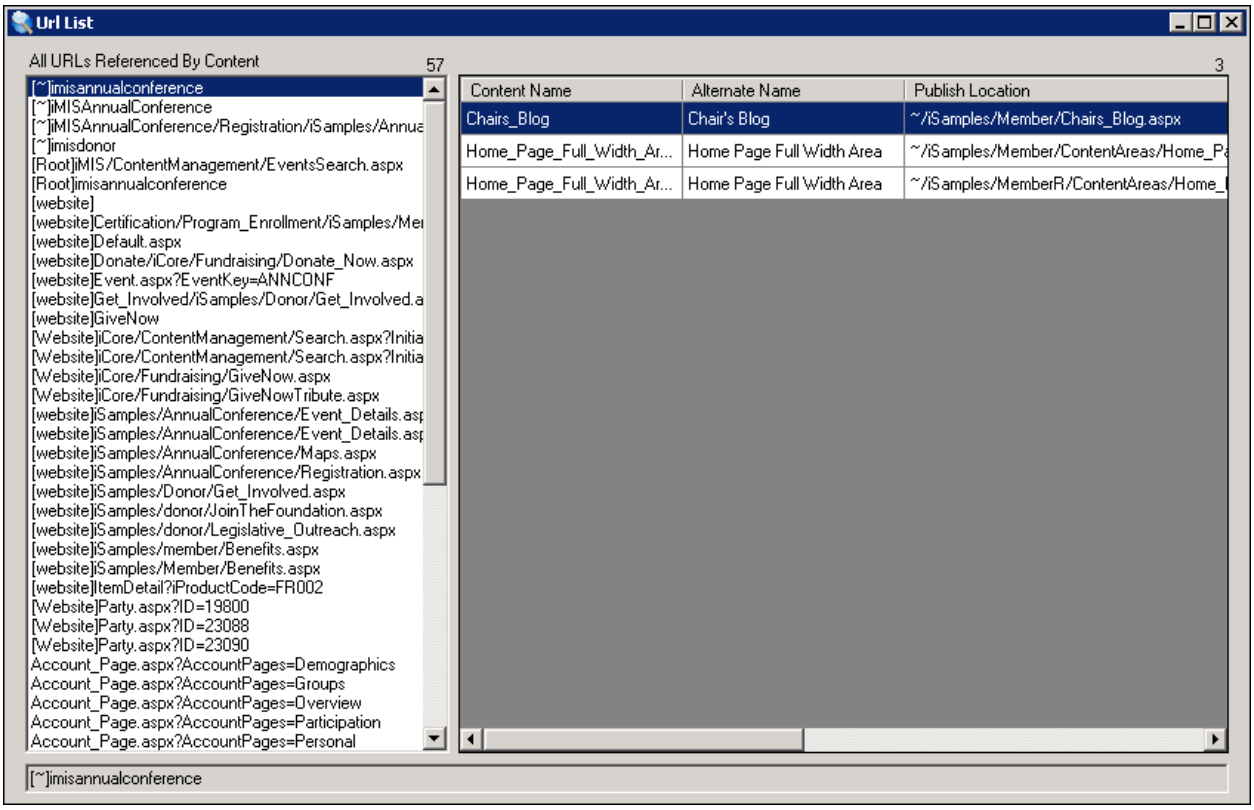
### Refresh

The **Refresh** button reloads all content and rescans all of the navigation. If you are using WCM to modify content while this tool is running, you will need to click **Refresh** to see your changes reflected in the tool. The Content Browser caches all the information and relationship for performance reasons, so real-time changes made with any other tool or interface will not be reflected unless you click **Refresh**.

### URL List

The **URL List** button displays a new window that shows all of the URLs referenced by clickable links in a Content HTML content item for any content. While the window is open, this button will be grayed out. You can move between this window and the main window freely. The URL List window is not a modal window. It allows you to see all the content that references a given URL, and easily jump to that content for more information.

Click to view image



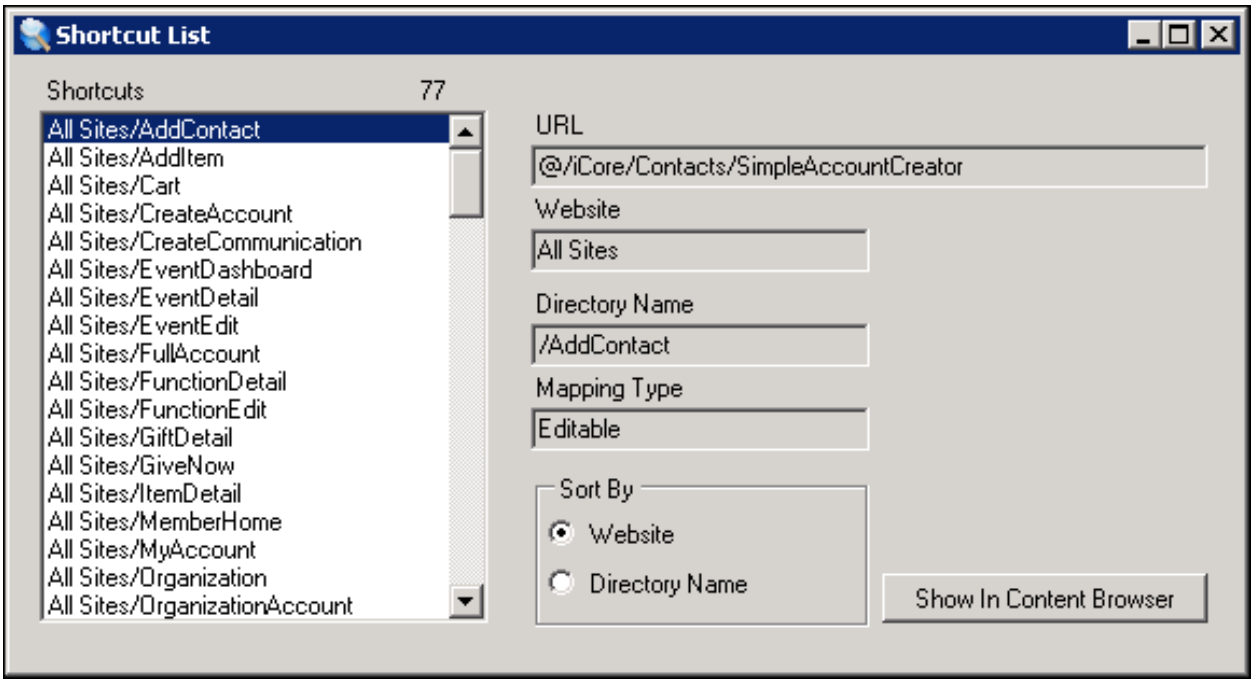

The **URL List** window lists in alphabetical order all the URLs currently used in any content in the **All URLs Referenced By Content** area. When a URL is selected, all the content that contains an instance of that URL will be displayed to the right. At the very bottom of the window, the full URL will be displayed, for those URLs that are too long to view completely in the list. Each URL you select will be displayed here.

Double-clicking on any content record will select that content in the tree control on the main Content Browser window. This allows you to easily locate and navigate to specific content that is using any given URL, and get an overview of how URLs are used on your sites.

### Shortcuts

The **Shortcut List** window shows all the shortcuts, sorted either by website or by directory name. While the window is open, this button is grayed out. You can move between this window and the main window freely. The **Shortcut List** window is not a modal window.

Click to view image

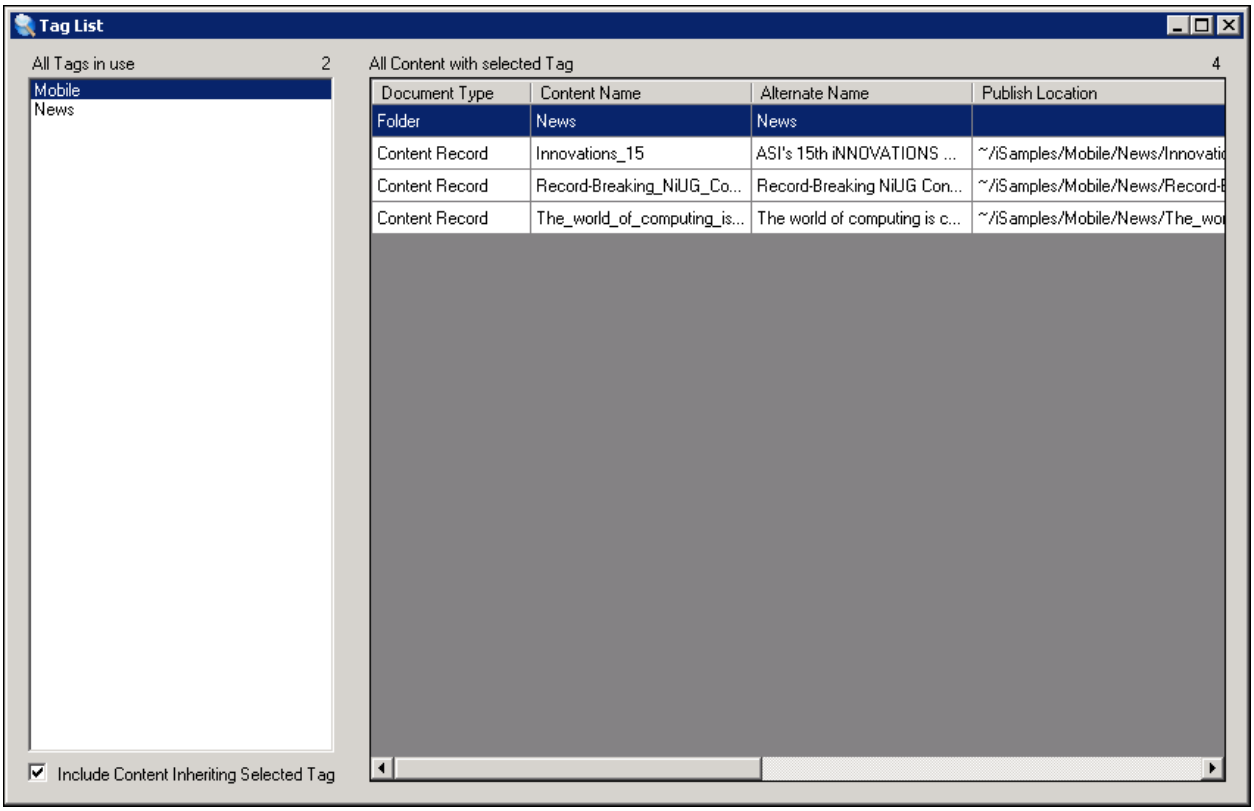



Double-clicking on any shortcut in the **Shortcuts** list will open the referenced content item in the main Content Browser window. You can also click **Show In Content Browser** to open the referenced content item in the main Content Browser window.

### Tags List

The **Tags List** button displays a new window that lists all the tags used by all the content in the system. This is another way to view the data, and see how the content is used. While the window is open, this button will be grayed out. You can move between this window and the main window freely. The **Tag List** window is not a modal window.

Click to view image




The **Tag List** window will list all the tags currently used in any content in alphabetical order in the **All Tags in use** area. When a tag is selected, all the content with the selected tag will be displayed in **All Content with selected Tag** on the right.

If the **Include Content Inheriting Selected Tag** checkbox is selected, then you see not only the content that is directly tagged, but all content in folders that are directly tagged.

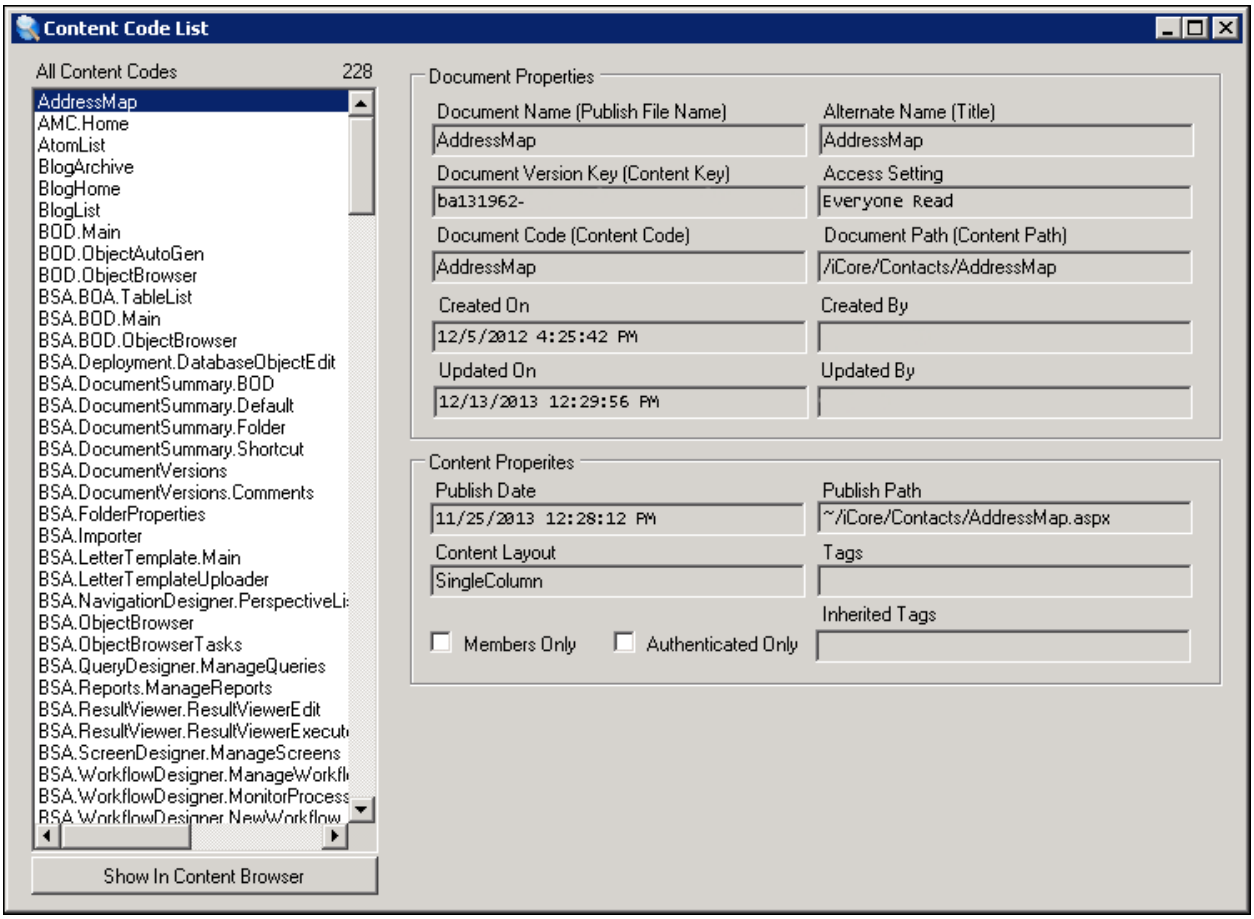
Double-clicking on any content record in the **All Content with selected Tag** area will select that content in the tree control in the main Content Browser window. This allows you to easily locate and navigate to specific content that is referenced by any given tag, and get an overview of how tags are used on your sites.

### Content Code List

The **Content Code List** button opens a new window that lists all the content codes used by all the content in the system. This is another way to view the data, and see how the content is used. While the window is open, this button will be grayed out. You can move

between this window and the main window freely. The **Content Code List** window is not a modal window.

Click to view image




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The **Content Code List** window lists all the content codes currently used in any content in alphabetical order in the **All Content Codes** pane. When a content code is selected, all the properties of the content with that content code will be displayed. The information is the same as you would see in the main Content Browser window.

Click **Show in Content Browser** to select the content in the tree-view of the main window. You can also double-click on the content code in the list to have the same effect as clicking **Show in Content Browser**.

Two pieces of content should not have the same content code. If they do, then selecting the content code causes an error message to be displayed.

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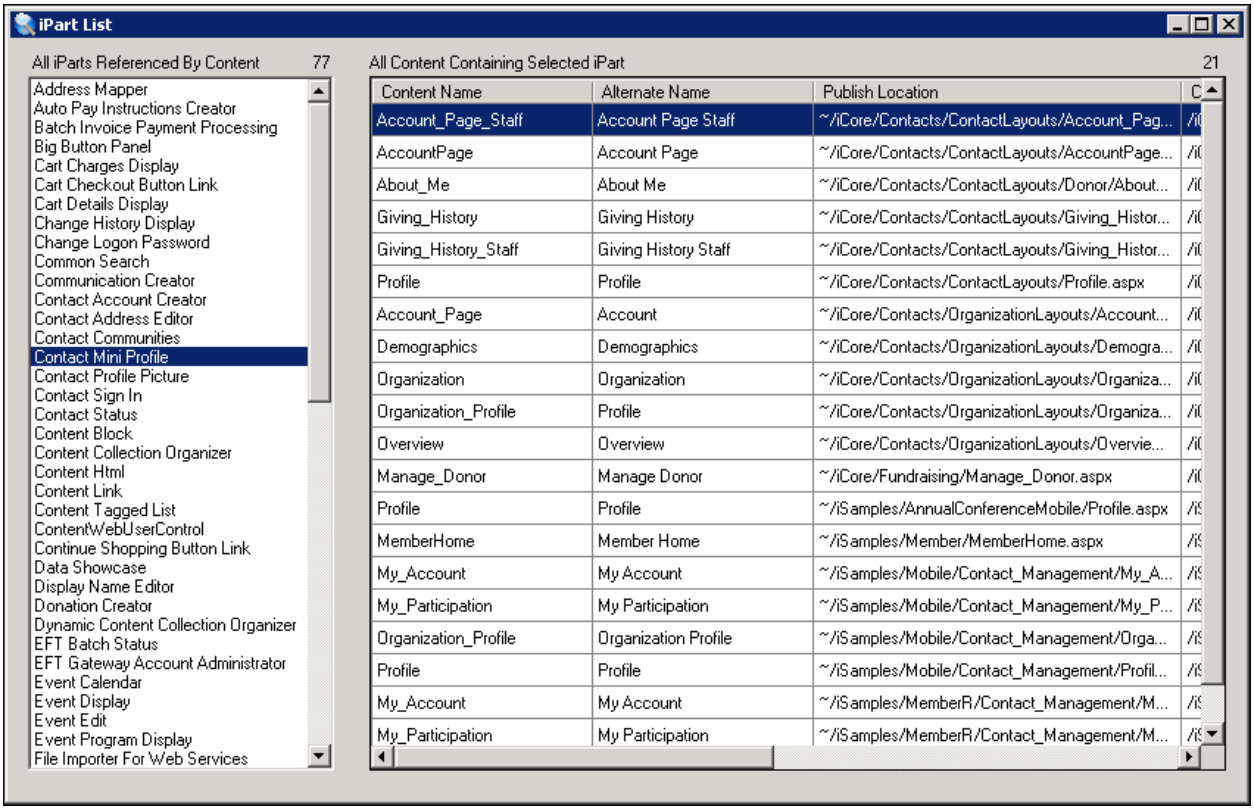



Click **Dup 1** or **Dup 2** to display the properties of each content record. Whichever content record is active will be the content record you see in the main window when you click **Show in Content Browser**. You can delete one of the two content records at this point.

### iPart List

The **iPart List** button opens a new window that lists all the content items used by all the content in the system. This is another way to view the data, and see how the content is used. While the window is open, this button will be grayed out. You can move between this window and the main window freely. The **iPart List** window is not a modal window.

Click to view image




The **iPart List** window lists all the content items and controls currently used in any content in alphabetical order in the **All iParts Referenced By Content** area. When a content item

is selected, all the content that contains an instance of that content item or control will be displayed in the **All Content Containing Selected iPart** area.

Double-clicking on any content record in the **All Content Containing Selected iPart** area will select that content in the tree control on the main Content Browser window. This allows you to easily locate and navigate to specific content that is using any given content item, and get an overview of how content items are used on your sites.

## Understanding iMIS Features

Explore the feature areas available in iMIS in detail, ranging from Certification to RiSE. Each area provides topics containing conceptual, configuration, and procedures to help you better understand the features. Additional information is also included in the How To Articles.

- **Analytics** enables you to understand and analyze the performance of your organization in ways that are difficult to accomplish with standard reporting tools.
- **Certification** is a highly organized and integrated tool for managing your organization's certification programs. Your website visitors can stay informed and up-to-date with training and certification programs and can manage and view their certification progress. Your staff can define and manage certification programs, specify program requirements, and more!
- **Commerce** is filled with tools for finding and adding products, managing promotions, and processing automatic payments. This tab also has a link to the Advanced Accounting Console.
- **Communication** includes topics about how to design and send email communications to your contacts.
- **Community** describes how to manage your contacts, chapters, committees, marketing campaigns, and more!
- **Continuum** is the place to go to learn about modifying iMIS reports and building your own custom reports. In addition, you can review our sample Guided Performance Scorecard and learn how to set up these essential measurements to manage and report on your organization's goals.
- **Creating websites** is filled with tools for creating public-facing websites.

- **Database tools** are the tools to keep your iMIS database running efficiently. Topics about maintaining and upgrading your database are in this section, as well as other methods to help ensure smooth system performance.
- **Dynamic Content Items** tab helps you to understand how to present attractive and dynamic content to your users.
- **Events** is an especially exciting and flexible area for creating events online. You can also add survey questions for events and view your event calendar.
- **Fundraising** helps you manage your organization's fundraising campaigns, add gift items to your site, and manage your donations.
- **IQA** (Intelligent Query Architect) provides insight to defining queries of database information that can later be included in a report or presented in a grid on your website.
- **Payments** guides you through the configuration and integration of authorized gateways to administer payment functionality for iMIS.
- **RiSE** is core to building and maintaining your organization's website content and look and feel.
- **Staff Settings** guides you through the process of configuring iMIS to meet your organization's needs.
- **Website Management** includes many articles that are helpful in managing your RiSE websites. Topics from Creating a site to Responsive web design help you plan and implement beautiful websites.

## About Analytics

iMIS Analytics brings true business intelligence to your iMIS solution, giving you the power to understand and analyze the performance of your organization in ways that are tedious or impossible with standard reporting tools.

### The Problem

The information that you need to identify and respond to performance issues, market trends, and competitive forces is there in your iMIS database, but the sheer volume and variety of data makes it difficult to organize this information. For example, how do you determine whether a sharp revenue drop is just a one-time event in a specific region or is an indication of a larger trend that warrants a massive change in the budget?

iMIS provides many useful reports, and you have probably had many custom reports designed to help you see trends or to investigate performance issues. Unfortunately, it's not practical to continually develop new reports to deal with time-critical issues as they arise, which means that you are often making important decisions based on incomplete information.

Other issues that affect your ability to analyze your organization's performance include the following problems:

- Frequent reports and queries by your executives and managers can drain the system of resources for your normal business activities.
- Some of the information in your iMIS database is always current data, such as a customer name or address. However, if a customer address changes, for example, reports and queries cannot easily show you the historical addresses.
  You might already know that implementing a data warehouse and online analytical processing (OLAP) database can solve these problems, but such an undertaking can be difficult and costly.

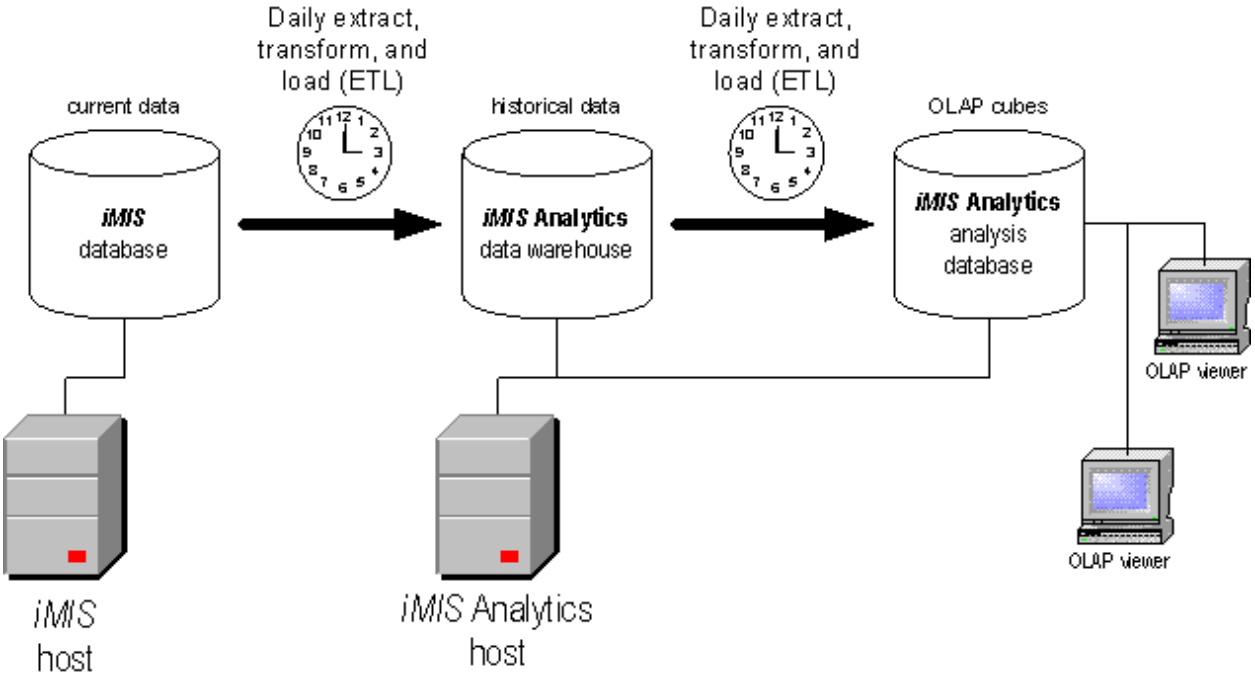
### The Solution

Analytics is a turn-key business intelligence solution for your iMIS system. Analytics creates a data warehouse and OLAP database that is tailored specifically for your iMIS database. Every night, your data is automatically extracted from the iMIS database and stored in the data warehouse so that you have a complete historical record of all your iMIS data. The OLAP database contains one iMIS cube comprising eight measure groups that are designed to give you the best combination of multi-dimensional views into your iMIS information, and the cube is automatically updated every night with the information from your data warehouse.

You use an OLAP viewer to analyze the information that is stored in the cube, which is a very fast and flexible process that doesn't require knowledge about designing reports or performing SQL queries. This approach eliminates the need to run reports on a daily basis for manual comparison. Instead, you have instant access to key performance indicators, can easily compare multiple information categories, and can easily drill down into any information category. Because you are examining the OLAP database instead of

reporting and querying against your iMIS database, your organization's normal business activities are relatively unaffected.

Click to view image




Analytics comes with a predefined Analytics Briefing Book that is designed for the popular OLAP viewer **ProClarity Professional**. The Briefing Book is filled with many useful views into the iMIS cube, which provides you with a clear picture of your organization's performance in key areas. You can also add your own views to the Briefing Book and share them with other ProClarity Professional users in your organization.

Analytics can be configured to include certain types of custom demographics that you have added to your iMIS solution, making these custom demographics available in your data warehouse and OLAP database.

**Benefits for executives and managers**

- Extremely fast access to important business performance information
- Easy access to all types of charts, graphs, and metrics
- Great visuals for presentations
- Dynamic charting and analysis of key performance indicators
- Power to manage and plan more effectively

- Ability to add your custom iMIS demographics
- Less reliance on IT Staff for reports

**Limitations**

Analytics does not include predictive/forecasting capabilities or pattern analysis. These capabilities can be achieved by using a predictive tool that is compatible with Microsoft Analysis Services, which is beyond the scope of ASI support.

Although you can use any OLAP viewer that is compatible with Microsoft Analysis Services to browse and report on the iMIS cube created by Analytics, ASI supports Analytics only for use with ProClarity Professional.

**Important Analytics concepts**

iMIS Analytics can be installed without any customization, and you will have access to many useful key performance indicators by using the supplied Analytics Briefing Book for ProClarity Professional. You don't need to understand data warehousing or online analytical processing (OLAP) to gain instant value from using Analytics.

- If you understand some basic concepts, however, you can take advantage of the full power of Analytics.
- If your executives and managers understand the basic elements of an OLAP cube, they can use OLAP viewers such as ProClarity Professional to create any view of iMIS data that they need, rather than relying only on the predefined views in the Briefing Book.
- If your IT staff understands some basic data warehousing concepts and the general architecture of Analytics, they can:
- Determine how to implement Analytics as a data mart in the bus architecture of a larger enterprise data warehouse solution.
- Determine which of your custom iMIS demographics (custom fields) should be added to the data warehouse to provide you with even stronger business intelligence than that offered by a non-customized implementation of Analytics.

Basic concepts for your executives and managers

iMIS Analytics is a sophisticated product that creates and maintains a robust data warehouse and a powerful OLAP cube in a special analysis database. Most of the product is invisible to you, however, working behind the scenes. If you are using the recommended

ProClarity Professional viewer to analyze the data in the cube, your main exposure to the product is through the Analytics Briefing Book.

The Briefing Book contains many predefined views of your iMIS data, but sometimes you will want to see information that is not available in one of the predefined views. In these situations, you will want to use the following special features of ProClarity Professional (see your ProClarity Professional tutorial to learn more about these features):

- **drill-downs**
- *displays more granular details of a chart*
- When viewing any chart, you can drill down to more granular data for a particular data point by left-clicking the data point. You can also "cross-drill" to other closely related data in a background hierarchy by right-clicking the data point and choosing the hierarchy into which you want to drill-down.
- **Setup Panel**
- *creates custom views of your iMIS data*
- To define your own custom views, you use the **Setup Panel** to either modify an existing view in the Briefing Book, or to define an entirely new view.

Basic concepts for your IT staff

In smaller organizations, iMIS Analytics might be the only data warehouse providing you with business intelligence. In larger organizations with several major databases besides your iMIS database, the data warehousing experts in your organization can implement Analytics as a data mart in the bus architecture of a larger enterprise data warehouse solution (per the Kimball model). Describing this type of data mart implementation is beyond the scope of this document, because such implementations are highly customized solutions. A data mart implementation is possible, however, because the Analytics data warehouse uses dimensional models and a star schema, and because the Analytics OLAP cube has been designed around conformed dimensions and conformed measures (facts). Your data warehousing experts can rely on documentation for Microsoft Analysis Services or any related third-party documentation to be applicable to the design of the Analytics data warehouse and analysis database.

Whether Analytics is implemented as your only data warehouse or as a data mart, there are major decisions that you must make when implementing Analytics:

- Should the product be installed in a two-tier or single-tier server configuration?
- Which of your custom iMIS demographics (custom fields) should be added to Analytics?
- Which type of slowly-changing dimension (SCD) should you use for each custom demographic?

Server configurations

Analytics server components can be implemented on a single tier with your iMIS database, or spread across two hosts in a two-tier configuration:

- **Two-tier**: The Analytics data warehouse and analysis database are located together on one SQL Server host (the *Analytics* host), and your iMIS database is located on a different SQL Server host (the *iMIS* host). Both the Analytics host and the iMIS host must be members of the same domain.
- **Single-tier**: The Analytics data warehouse and analysis database are located on the same SQL Server host that contains your iMIS database. In this configuration, the Analytics host is also the iMIS host.

The single-tier configuration is the easiest to install and use, and generally won't affect performance of your iMIS database unless you have many people constantly using the analysis database. The following information about the three databases involved in an Analytics implementation can help you determine whether a two-tier or single-tier configuration is best for your organization:

- **iMIS database**
- *current data stored in relational tables*
- Your iMIS database contains some historical records of things like donations, purchases, etc. Much of the information in your iMIS database, however, is always current data. For example, if a product description or customer's address changes, the old product description or the old customer address is not saved in the iMIS database.
- **data warehouse**
- *historical data stored in dimensional tables using a star schema*
- The Analytics data warehouse is a special database that contains a copy of all your iMIS data. The data warehouse does not use relational tables, but instead structures your data

in a dimensional model using a star schema. Because much of the copied data comprises slowly changing dimensions that preserve history (Type 2 SCDs), the data warehouse will grow over time, so space requirements for growth are a factor in determining whether to implement a two-tier or single-tier configuration. However, since the data warehouse is used only during the extraction, transform, and load (ETL) process during off-peak hours, the performance impact on the iMIS host in a single-tier configuration is negligible.

- **analysis database - OLAP cube**
- *OLAP cube derived from data warehouse contents, using conformed dimensions and conformed measures (facts)*
- The Analytics analysis database contains a copy of the information from the data warehouse, transformed into a cube in an OLAP database. As with the data warehouse, the analysis database will grow over time, so space requirements for growth are a factor in determining whether to implement a two-tier or single-tier configuration. Unlike the data warehouse, this database might be used heavily during peak hours of the business day. However, OLAP viewers such as ProClarity Professional do not generate heavy SQL activity, so the performance impact on the iMIS host in a single-tier configuration is minimal.

Custom iMIS demographics

The Customers feature of iMIS has a feature called the iMIS Customizer, which enables you to create custom tables for use in custom window tabs that capture your own demographic information about each customer. With some limitations, you can configure your implementation of Analytics to include your custom demographic information about each customer in the data warehouse and analysis database. The following limitations apply to custom iMIS demographics:

- Fields from custom tables that are defined to allow multiple table rows for a single customer ID (multi-instance custom tables) cannot be included in Analytics.
- Fields from single-instance custom tables are added as attributes to the **Customer Ext Dim** dimension.

Examining these limitations in more detail can help you plan how to configure Analytics to track custom iMIS demographics (see Configuring Analytics to track custom iMIS demographics).

A multi-instance custom table is one for which the **Multiple Instances Allowed** checkbox was selected when creating the custom table with the iMIS Customizer. In a multi-instance custom table, you can have multiple records for the same customer ID. For example, you might want to send out annual surveys to each of your customers and track the survey results in a custom table that is viewable on a custom **Surveys** tab in the **Manage Customers** window. In this scenario, the Surveys tab for a specific customer would show one row for each year's survey results.

In a single-instance custom table, by contrast, there would never be multiple records for the same customer ID. For example, you might have created a custom table that tracks general demographic information for customers, such as their spouse's name and the school they attended. In this scenario, there would never be more than one row needed per customer ID to store the demographic information.

Because multi-instance custom tables can have more than one record per customer ID, Analytics cannot determine which of those multiple records to display as attributes for a specific customer when you are examining the detail information for that customer in an OLAP viewer such as ProClarity Professional. Therefore, only fields from single-instance custom tables can be included in your implementation of Analytics.

The other limitation of custom tables is that the fields from these tables are essentially extended attributes of a specific customer ID, instead of being a category of business information that could be considered a dimension member in its own right. Therefore, the custom fields that you add to Analytics are not treated as members (levels) in a dimension that you can directly graph on a chart in OLAP viewers such as ProClarity Professional. Instead, you can view the custom fields only as attributes of a specific customer, once you have drilled-down far enough into a view to display specific customers.

## Slowly changing dimensions

The most difficult decision to make when configuring Analytics to track your custom demographics is which type of slowly changing dimension (SCD) to use for each demographic. In a data warehouse, the measures (facts) change very rapidly, but by comparison, the data in your dimensions change slowly. For example, a custom demographic such as *staff size* is likely to change over time for a given customer.

Analytics supports two types of slowly changing dimensions, as well as giving you the option to not use a slowly changing dimension for demographics that never change over time. There are two questions you should consider for each demographic that you want to track in Analytics:

- Is this demographic a value that might change over time?
- If the answer is *no*, then you should configure the demographic to not use a slowly changing dimension.
- If the answer is *yes*, then you should consider the following question to determine which type of slowly changing dimension to use.
- Do I need to preserve a history of the different values of this demographic as it changes over time, or do I care only about the most current value of this demographic?
- If you need to preserve the historical values of a demographic, you should use a Type 2 SCD.
- If you need only the current value of a demographic, you should use a Type 1 SCD.
  The following information about slowly changing dimensions can also help you determine which SCD type to use for each custom field:

- **Type 2**
- *Preserves history*
- When changes occur to a Type 2 SCD, a new record is added with the new attribute information, preserving records of the old attribute information. Type 2 SCDs track history very efficiently because they create new records only when the attribute information changes. However, because Type 2 changes add new records, they can significantly increase the size of your data warehouse.

- **Type 1**
- *Overwrites history*
- When changes occur to a Type 1 SCD, no new records are created. Instead, the change overwrites the existing attribute with new information. The old information is lost forever.
- **Type 0**
- *Use no SCD*
- A Type 0 SCD is a special value used only in Analytics to indicate that the custom demographic is not a slowly changing dimension. The demographic is a value that will never change for a given customer. The advantage of using a Type 0 SCD for custom demographics that never change is that the data warehouse requires less overhead to maintain that demographic.

**Predefined views in the Analytics Briefing Book**

The iMIS Analytics Briefing Book, designed for use with the recommended ProClarity Professional OLAP viewer, contains the following predefined views of the measures in the Analytics analysis database. You can easily create your own custom views and add them to the Analytics Briefing Book.

Revenue

- Revenue by Product Class
- Revenue by Country
- Revenue by Customer Type
- Revenue by Campaign
- Revenue by Customer Type - Decomp
- Revenue by Country - Decomp
- Revenue by Product Type -Decomp
- Revenue Growth

Membership

- Committee Counts
- Membership Dues Counts
- Membership Renewal Rates

Opportunities

- Opportunities by Stage
- Opportunities Breakdown by Stage

- Forecast Totals by Customer Type
- Opportunities by Channel Type
- Opportunities by Team

Fundraising

- Pledges by Campaign
- Pledges by Customer Type

Marketing

- Revenue by Campaign
- Revenue by Response Type
- Revenue by Campaign and Response Type

Inventory

- Inventory Levels by Product and Warehouse
- Inventory Levels by Product Group

Issues

- Issues by Issue Type
- Issues by Product Type

Accounting

- General Ledger Activity by Account Number
- General Ledger Activity by Account Name

**Analytics dimensions and measures**

The iMIS cube in the analysis database contains the following dimensions and measures. If you use the recommended ProClarity Professional OLAP viewer with iMIS Analytics, you can easily browse the dimensions and measures and create any needed view of your iMIS business performance. Once you have created a custom view (see Viewing the iMIS cube for ad-hoc analysis), you can add it to the predefined views in the Analytics Briefing Book.

Dimensions

- Campaign
- Channel
- Customer
- Customer Ext Dim (see Configuring Analytics to track custom iMIS demographics)
- Date

- GL Account
- Group Enroll Type
- Group Expire Type
- Group
- Issue Status
- Issue Type
- Opportunity Status
- Opportunity Type
- Organization
- Product
- Promotion
- Response Media
- Sales Location
- Sales Order Details
- Sales Team
- Shipper
- Warehouse

Measure groups (facts) and measures

- GL Transaction Fact
- GL Transaction Fact Count
- Transaction Amount
- Group Enrollment Fact
- Count
- Group Enrollment Fact Count
- Group Stats Fact
- Active Count
- Downgrade
- Dropped
- Lapsed
- New
- Reinstate
- Renew
- Transfer In

- Transfer Out
- Upgrade
- Inventory Level Fact
- Cost
- Inventory Level Fact Count
- Quantity On Hand
- Quantity On Order
- Quantity Received
- Quantity Shipped
- Quantity Sold
- Issue Fact
- Issue Fact Count
- Service Provider Key
- Time to Resolve
- Total Effort
- Opportunity Fact
- Component Price1
- Component Price2
- Component Price3
- List Price
- Opportunity Fact Count
- Probability
- Purchase Budget
- Units
- Pledge Fact
- Adjustment Amount
- Amount Paid
- Open Balance
- Pledge Amount
- Pledge Fact Count
- Sales Fact
- Cost Amount
- Fair Market Value

- Gross Profit
- Quantity
- Sales Amount
- Sales Fact Count

*See also*:

- Analytics usage
- Analytics implementation

## About Analytics

iMIS Analytics brings true business intelligence to your iMIS solution, giving you the power to understand and analyze the performance of your organization in ways that are tedious or impossible with standard reporting tools.

### The Problem

The information that you need to identify and respond to performance issues, market trends, and competitive forces is there in your iMIS database, but the sheer volume and variety of data makes it difficult to organize this information. For example, how do you determine whether a sharp revenue drop is just a one-time event in a specific region or is an indication of a larger trend that warrants a massive change in the budget?

iMIS provides many useful reports, and you have probably had many custom reports designed to help you see trends or to investigate performance issues. Unfortunately, it's not practical to continually develop new reports to deal with time-critical issues as they arise, which means that you are often making important decisions based on incomplete information.

Other issues that affect your ability to analyze your organization's performance include the following problems:

- Frequent reports and queries by your executives and managers can drain the system of resources for your normal business activities.
- Some of the information in your iMIS database is always current data, such as a customer name or address. However, if a customer address changes, for example, reports and queries cannot easily show you the historical addresses.

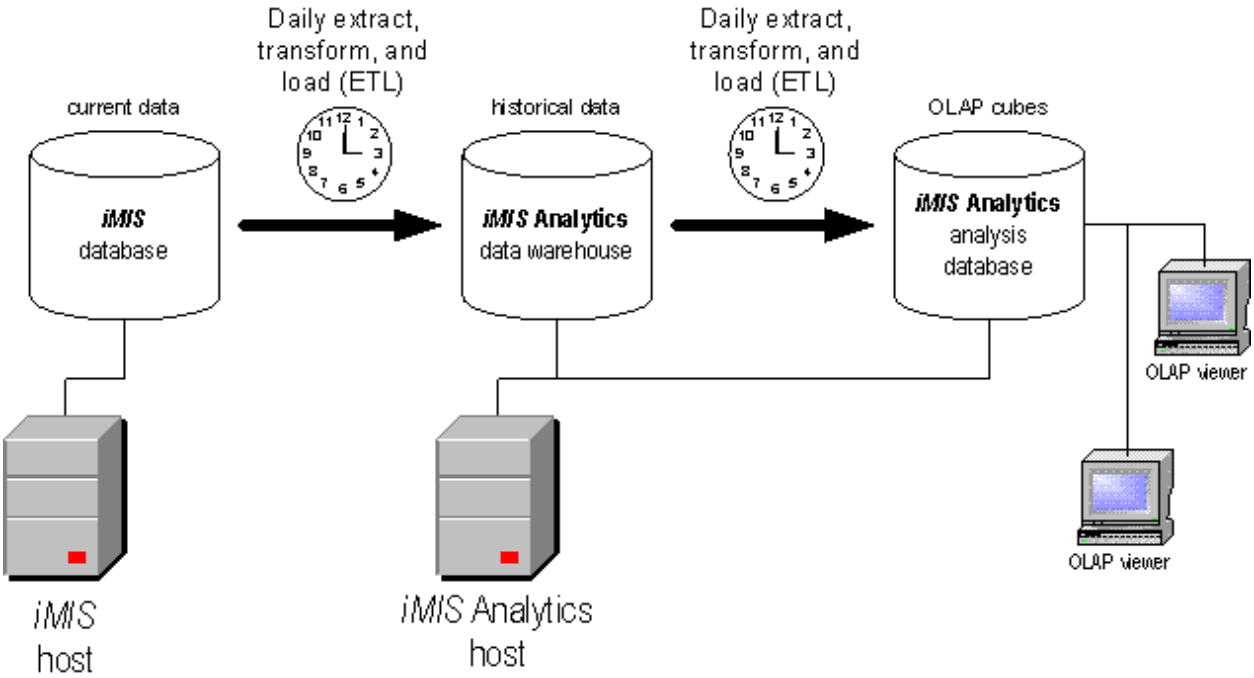
You might already know that implementing a data warehouse and online analytical processing (OLAP) database can solve these problems, but such an undertaking can be difficult and costly.

### The Solution

Analytics is a turn-key business intelligence solution for your iMIS system. Analytics creates a data warehouse and OLAP database that is tailored specifically for your iMIS database. Every night, your data is automatically extracted from the iMIS database and stored in the data warehouse so that you have a complete historical record of all your iMIS data. The OLAP database contains one iMIS cube comprising eight measure groups that are designed to give you the best combination of multi-dimensional views into your iMIS information, and the cube is automatically updated every night with the information from your data warehouse.

You use an OLAP viewer to analyze the information that is stored in the cube, which is a very fast and flexible process that doesn't require knowledge about designing reports or performing SQL queries. This approach eliminates the need to run reports on a daily basis for manual comparison. Instead, you have instant access to key performance indicators, can easily compare multiple information categories, and can easily drill down into any information category. Because you are examining the OLAP database instead of reporting and querying against your iMIS database, your organization's normal business activities are relatively unaffected.

Click to view image




Analytics comes with a predefined Analytics Briefing Book that is designed for the popular OLAP viewer **ProClarity Professional**. The Briefing Book is filled with many useful views into the iMIS cube, which provides you with a clear picture of your organization's performance in key areas. You can also add your own views to the Briefing Book and share them with other ProClarity Professional users in your organization.

Analytics can be configured to include certain types of custom demographics that you have added to your iMIS solution, making these custom demographics available in your data warehouse and OLAP database.

### Benefits for executives and managers

- Extremely fast access to important business performance information
- Easy access to all types of charts, graphs, and metrics
- Great visuals for presentations
- Dynamic charting and analysis of key performance indicators
- Power to manage and plan more effectively
- Ability to add your custom iMIS demographics
- Less reliance on IT Staff for reports

### Limitations

Analytics does not include predictive/forecasting capabilities or pattern analysis. These capabilities can be achieved by using a predictive tool that is compatible with Microsoft Analysis Services, which is beyond the scope of ASI support.

Although you can use any OLAP viewer that is compatible with Microsoft Analysis Services to browse and report on the iMIS cube created by Analytics, ASI supports Analytics only for use with ProClarity Professional.

### Important Analytics concepts

iMIS Analytics can be installed without any customization, and you will have access to many useful key performance indicators by using the supplied Analytics Briefing Book for ProClarity Professional. You don't need to understand data warehousing or online analytical processing (OLAP) to gain instant value from using Analytics.

- If you understand some basic concepts, however, you can take advantage of the full power of Analytics.
- If your executives and managers understand the basic elements of an OLAP cube, they can use OLAP viewers such as ProClarity Professional to create any view of iMIS data that they need, rather than relying only on the predefined views in the Briefing Book.
- If your IT staff understands some basic data warehousing concepts and the general architecture of Analytics, they can:
- Determine how to implement Analytics as a data mart in the bus architecture of a larger enterprise data warehouse solution.
- Determine which of your custom iMIS demographics (custom fields) should be added to the data warehouse to provide you with even stronger business intelligence than that offered by a non-customized implementation of Analytics.

Basic concepts for your executives and managers

iMIS Analytics is a sophisticated product that creates and maintains a robust data warehouse and a powerful OLAP cube in a special analysis database. Most of the product is invisible to you, however, working behind the scenes. If you are using the recommended ProClarity Professional viewer to analyze the data in the cube, your main exposure to the product is through the Analytics Briefing Book.

The Briefing Book contains many predefined views of your iMIS data, but sometimes you will want to see information that is not available in one of the predefined views. In these situations, you will want to use the following special features of ProClarity Professional (see your ProClarity Professional tutorial to learn more about these features):

- **drill-downs**
- *displays more granular details of a chart*
- When viewing any chart, you can drill down to more granular data for a particular data point by left-clicking the data point. You can also "cross-drill" to other closely related data in a background hierarchy by right-clicking the data point and choosing the hierarchy into which you want to drill-down.
- **Setup Panel**
- *creates custom views of your iMIS data*
- To define your own custom views, you use the **Setup Panel** to either modify an existing view in the Briefing Book, or to define an entirely new view.

Basic concepts for your IT staff

In smaller organizations, iMIS Analytics might be the only data warehouse providing you with business intelligence. In larger organizations with several major databases besides your iMIS database, the data warehousing experts in your organization can implement Analytics as a data mart in the bus architecture of a larger enterprise data warehouse solution (per the Kimball model). Describing this type of data mart implementation is beyond the scope of this document, because such implementations are highly customized solutions. A data mart implementation is possible, however, because the Analytics data warehouse uses dimensional models and a star schema, and because the Analytics OLAP cube has been designed around conformed dimensions and conformed measures (facts). Your data warehousing experts can rely on documentation for Microsoft Analysis Services or any related third-party documentation to be applicable to the design of the Analytics data warehouse and analysis database.

Whether Analytics is implemented as your only data warehouse or as a data mart, there are major decisions that you must make when implementing Analytics:

- Should the product be installed in a two-tier or single-tier server configuration?
- Which of your custom iMIS demographics (custom fields) should be added to Analytics?

- Which type of slowly-changing dimension (SCD) should you use for each custom demographic?
  Server configurations
  Analytics server components can be implemented on a single tier with your iMIS database, or spread across two hosts in a two-tier configuration:

- **Two-tier**: The Analytics data warehouse and analysis database are located together on one SQL Server host (the *Analytics* host), and your iMIS database is located on a different SQL Server host (the *iMIS* host). Both the Analytics host and the iMIS host must be members of the same domain.
- **Single-tier**: The Analytics data warehouse and analysis database are located on the same SQL Server host that contains your iMIS database. In this configuration, the Analytics host is also the iMIS host.
  The single-tier configuration is the easiest to install and use, and generally won't affect performance of your iMIS database unless you have many people constantly using the analysis database. The following information about the three databases involved in an Analytics implementation can help you determine whether a two-tier or single-tier configuration is best for your organization:

- **iMIS database**
- *current data stored in relational tables*
- Your iMIS database contains some historical records of things like donations, purchases, etc. Much of the information in your iMIS database, however, is always current data. For example, if a product description or customer's address changes, the old product description or the old customer address is not saved in the iMIS database.
- **data warehouse**
- *historical data stored in dimensional tables using a star schema*
- The Analytics data warehouse is a special database that contains a copy of all your iMIS data. The data warehouse does not use relational tables, but instead structures your data in a dimensional model using a star schema. Because much of the copied data comprises slowly changing dimensions that preserve history (Type 2 SCDs), the data warehouse will grow over time, so space requirements for growth are a factor in determining whether to implement a two-tier or single-tier configuration. However, since the data

warehouse is used only during the extraction, transform, and load (ETL) process during off-peak hours, the performance impact on the iMIS host in a single-tier configuration is negligible.

- **analysis database - OLAP cube**
- *OLAP cube derived from data warehouse contents, using conformed dimensions and conformed measures (facts)*
- The Analytics analysis database contains a copy of the information from the data warehouse, transformed into a cube in an OLAP database. As with the data warehouse, the analysis database will grow over time, so space requirements for growth are a factor in determining whether to implement a two-tier or single-tier configuration. Unlike the data warehouse, this database might be used heavily during peak hours of the business day. However, OLAP viewers such as ProClarity Professional do not generate heavy SQL activity, so the performance impact on the iMIS host in a single-tier configuration is minimal.

Custom iMIS demographics

The Customers feature of iMIS has a feature called the iMIS Customizer, which enables you to create custom tables for use in custom window tabs that capture your own demographic information about each customer. With some limitations, you can configure your implementation of Analytics to include your custom demographic information about each customer in the data warehouse and analysis database. The following limitations apply to custom iMIS demographics:

- Fields from custom tables that are defined to allow multiple table rows for a single customer ID (multi-instance custom tables) cannot be included in Analytics.
- Fields from single-instance custom tables are added as attributes to the **Customer Ext Dim** dimension.

Examining these limitations in more detail can help you plan how to configure Analytics to track custom iMIS demographics (see Configuring Analytics to track custom iMIS demographics).

A multi-instance custom table is one for which the **Multiple Instances Allowed** checkbox was selected when creating the custom table with the iMIS Customizer. In a multi-

instance custom table, you can have multiple records for the same customer ID. For example, you might want to send out annual surveys to each of your customers and track the survey results in a custom table that is viewable on a custom **Surveys** tab in the **Manage Customers** window. In this scenario, the Surveys tab for a specific customer would show one row for each year's survey results.

In a single-instance custom table, by contrast, there would never be multiple records for the same customer ID. For example, you might have created a custom table that tracks general demographic information for customers, such as their spouse's name and the school they attended. In this scenario, there would never be more than one row needed per customer ID to store the demographic information.

Because multi-instance custom tables can have more than one record per customer ID, Analytics cannot determine which of those multiple records to display as attributes for a specific customer when you are examining the detail information for that customer in an OLAP viewer such as ProClarity Professional. Therefore, only fields from single-instance custom tables can be included in your implementation of Analytics.

The other limitation of custom tables is that the fields from these tables are essentially extended attributes of a specific customer ID, instead of being a category of business information that could be considered a dimension member in its own right. Therefore, the custom fields that you add to Analytics are not treated as members (levels) in a dimension that you can directly graph on a chart in OLAP viewers such as ProClarity Professional. Instead, you can view the custom fields only as attributes of a specific customer, once you have drilled-down far enough into a view to display specific customers.

Slowly changing dimensions

The most difficult decision to make when configuring Analytics to track your custom demographics is which type of slowly changing dimension (SCD) to use for each demographic. In a data warehouse, the measures (facts) change very rapidly, but by comparison, the data in your dimensions change slowly. For example, a custom demographic such as *staff size* is likely to change over time for a given customer.

Analytics supports two types of slowly changing dimensions, as well as giving you the option to not use a slowly changing dimension for demographics that never change over time. There are two questions you should consider for each demographic that you want to track in Analytics:

- Is this demographic a value that might change over time?
- If the answer is *no*, then you should configure the demographic to not use a slowly changing dimension.
- If the answer is *yes*, then you should consider the following question to determine which type of slowly changing dimension to use.
- Do I need to preserve a history of the different values of this demographic as it changes over time, or do I care only about the most current value of this demographic?
- If you need to preserve the historical values of a demographic, you should use a Type 2 SCD.
- If you need only the current value of a demographic, you should use a Type 1 SCD.

The following information about slowly changing dimensions can also help you determine which SCD type to use for each custom field:

- **Type 2**
- *Preserves history*
- When changes occur to a Type 2 SCD, a new record is added with the new attribute information, preserving records of the old attribute information. Type 2 SCDs track history very efficiently because they create new records only when the attribute information changes. However, because Type 2 changes add new records, they can significantly increase the size of your data warehouse.
- **Type 1**
- *Overwrites history*
- When changes occur to a Type 1 SCD, no new records are created. Instead, the change overwrites the existing attribute with new information. The old information is lost forever.
- **Type 0**
- *Use no SCD*
- A Type 0 SCD is a special value used only in Analytics to indicate that the custom demographic is not a slowly changing dimension. The demographic is a value that will never

change for a given customer. The advantage of using a Type 0 SCD for custom demographics that never change is that the data warehouse requires less overhead to maintain that demographic.

### Predefined views in the Analytics Briefing Book

The iMIS Analytics Briefing Book, designed for use with the recommended ProClarity Professional OLAP viewer, contains the following predefined views of the measures in the Analytics analysis database. You can easily create your own custom views and add them to the Analytics Briefing Book.

Revenue

- Revenue by Product Class
- Revenue by Country
- Revenue by Customer Type
- Revenue by Campaign
- Revenue by Customer Type - Decomp
- Revenue by Country - Decomp
- Revenue by Product Type -Decomp
- Revenue Growth

Membership

- Committee Counts
- Membership Dues Counts
- Membership Renewal Rates

Opportunities

- Opportunities by Stage
- Opportunities Breakdown by Stage
- Forecast Totals by Customer Type
- Opportunities by Channel Type
- Opportunities by Team

Fundraising

- Pledges by Campaign
- Pledges by Customer Type

Marketing

- Revenue by Campaign
- Revenue by Response Type
- Revenue by Campaign and Response Type

Inventory

- Inventory Levels by Product and Warehouse
- Inventory Levels by Product Group

Issues

- Issues by Issue Type
- Issues by Product Type

Accounting

- General Ledger Activity by Account Number
- General Ledger Activity by Account Name

**Analytics dimensions and measures**

The iMIS cube in the analysis database contains the following dimensions and measures. If you use the recommended ProClarity Professional OLAP viewer with iMIS Analytics, you can easily browse the dimensions and measures and create any needed view of your iMIS business performance. Once you have created a custom view (see Viewing the iMIS cube for ad-hoc analysis), you can add it to the predefined views in the Analytics Briefing Book.

Dimensions

- Campaign
- Channel
- Customer
- Customer Ext Dim (see Configuring Analytics to track custom iMIS demographics)
- Date
- GL Account
- Group Enroll Type
- Group Expire Type
- Group
- Issue Status
- Issue Type
- Opportunity Status

- Opportunity Type
- Organization
- Product
- Promotion
- Response Media
- Sales Location
- Sales Order Details
- Sales Team
- Shipper
- Warehouse

Measure groups (facts) and measures

- GL Transaction Fact
- GL Transaction Fact Count
- Transaction Amount
- Group Enrollment Fact
- Count
- Group Enrollment Fact Count
- Group Stats Fact
- Active Count
- Downgrade
- Dropped
- Lapsed
- New
- Reinstate
- Renew
- Transfer In
- Transfer Out
- Upgrade
- Inventory Level Fact
- Cost
- Inventory Level Fact Count
- Quantity On Hand
- Quantity On Order

- Quantity Received
- Quantity Shipped
- Quantity Sold
- Issue Fact
- Issue Fact Count
- Service Provider Key
- Time to Resolve
- Total Effort
- Opportunity Fact
- Component Price1
- Component Price2
- Component Price3
- List Price
- Opportunity Fact Count
- Probability
- Purchase Budget
- Units
- Pledge Fact
- Adjustment Amount
- Amount Paid
- Open Balance
- Pledge Amount
- Pledge Fact Count
- Sales Fact
- Cost Amount
- Fair Market Value
- Gross Profit
- Quantity
- Sales Amount
- Sales Fact Count

*See also*:

- Analytics usage
- Analytics implementation


## Analytics usage

Because iMIS Analytics conforms to industry standards for OLAP databases, you can use any OLAP viewer that is compatible with Microsoft SQL Server Analysis Services to browse and report on the data in the iMIS cube created by Analytics. To help you get started, however, we have included a briefing book with Analytics that is designed to work with the ProClarity Professional viewer. If you are using ProClarity Professional, you can open the Analytics Briefing Book and have instant access to many useful business performance views into your iMIS data.

> **Note:** The following procedures assume that you are using the ProClarity Professional viewer. If you are using a different OLAP viewer, you must adapt these procedures as necessary to accommodate your preferred OLAP viewer. Go to Microsoft to download ProClarity Professional.

### Analyzing iMIS business performance with the Analytics Briefing Book

The easiest way to analyze your iMIS business performance is to use the predefined iMIS Analytics Briefing Book designed for the ProClarity Professional viewer. The Analytics Briefing Book gives you instant access to many useful views into your iMIS data.

If the predefined Analytics Briefing Book does not provide iMIS business performance data that you would like to examine, you can also use ProClarity Professional to view the iMIS cube directly, drilling down into any dimension you choose. See Viewing the iMIS cube for ad-hoc analysis.

> **Note:** You must use the ProClarity Professional viewer for this procedure because the supplied Analytics Briefing Book is designed for use with it. If you are using a different OLAP viewer, see your viewer's documentation for information on how to create a set of predefined views into the Analytics cubes. Go to Microsoft to download ProClarity Professional.

Before you begin

- Analytics must be properly installed and configured, and the Analytics data warehouse and analysis database must be populated with data from the iMIS database. See Analytics implementation for more information.
- ProClarity Professional must be installed on your computer.
- The Analytics Briefing Book must have been installed on your computer. See Installing the Analytics Briefing Book on client computers for more information.

Scenario

In the following sample procedure, you are reviewing annual membership dues counts for your organization. The default Analytics Briefing Book view for **Membership Dues Counts** shows the total annual count of dues and activity fees for active members of your entire organization, but you are interested in comparing this information against the annual growth rate for chapters. You use the **Setup Panel** feature in ProClarity Desktop Professional to change the rows of the Membership Dues Counts view to display trend lines for both chapter membership counts and annual dues and activity fees.

To analyze iMIS business performance with the Analytics Briefing Book

> **Note:** See your ProClarity Professional documentation for more information.

1. In ProClarity Desktop Professional, open the Analytics Briefing Book (**iMIS Analytics.bbk**).
2. In the **Briefing Book** area, expand the **Membership** folder and open the **Membership Dues Counts** view. The view area displays a line chart and associated table that shows the annual number of dues and activity fee payments made by active members across the entire organization.
3. From the main menu, choose **View > Setup Panel**. The **Setup Panel** appears.
4. In the **Rows** list, right-click **Group Type - Children of Dues** and choose **Select Items**. The **Select Items** tab appears, with the **Children of Dues** item of the **Group Type** hierarchy selected.
5. Multi-select the **Chapters** level and the **Dues** level (hold **Ctrl** while clicking each level in the list), ensuring that you first deselect the **Children of Dues** item. The **Select Items** tab now shows that only **Chapters** and **Dues** are selected.

6. From the main menu, choose **View > Apply Now**. The view displays your query results, using a line chart that compares the annual number of dues and activity fee payments to the annual number of members in all chapters.

### Viewing the iMIS cube for ad-hoc analysis

If the predefined views in the iMIS Analytics Briefing Book for ProClarity Professional do not provide the specific iMIS business performance data that you would like to examine, you can use the **Setup Panel** feature of ProClarity Desktop Professional to create custom views of the measures and hierarchies available in the iMIS cube.

The following procedure uses one specific scenario to demonstrate how to create ad-hoc views of the iMIS cube using ProClarity Professional. You can adapt this procedure as necessary to perform ad-hoc analysis of other types of iMIS information.

> **Note:** If you are not using the ProClarity Professional viewer, you must adapt this procedure as necessary for your choice of OLAP viewer. See your viewer's documentation for more information.

Before you begin

- Analytics must be properly installed and configured, and the Analytics data warehouse and analysis database must be populated with data from the iMIS database. See Analytics implementation for more information.
- ProClarity Professional must be installed on your computer.
- The Analytics Briefing Book must have been installed on your computer. See Installing the Analytics Briefing Book on client computers for more information.

Scenario

In the following sample procedure, you want to analyze membership data that is not available as a default view in the Analytics Briefing Book. You use ProClarity Professional to create a new view that shows the total count of specific member types per calendar year, based on their membership subscription begin dates. Because this is a view you might want to review later, you then save the new view for easy access the next time you want to examine the same information.

To view the iMIS cube for ad-hoc analysis

> **Note:** See your ProClarity Professional documentation for more information about performing the following steps.

1. In ProClarity Professional, open the Analytics Briefing Book (**iMIS Analytics.bbk**).
2. Find a pre-defined view that already uses the type of chart you think would be most appropriate for interpreting the membership data that you want to analyze. For example, the **Membership Renewal Rates** view uses a line chart that makes it easy to see growth trends, along with a supplemental grid that contains raw counts for each data point.
3. From the main menu, choose **View > Setup Panel**. The **Setup Panel** appears.
4. In the **Hierarchies** tab, ensure that the **Group Enrollment Fact** measure group is the currently filtered list of available hierarchies and measures. If not, click the hierarchy filter beneath the tab name and choose **Group Enrollment Fact** from the resulting menu. The list of available hierarchies in the **Group Enrollment Fact** measure group appears.
5. Define the rows and columns of your new ad-hoc query.

- Expand the **Customer** category and drag its **Customer.Type** hierarchy into the **Rows** list.
- Drag all other existing hierarchies out of the **Rows** list. The **Rows** list now contains only the **Customer.Type** hierarchy.
- In the hierarchy list, expand the **Date Begin** category and drag its **Date Begin.Calendar** hierarchy into the **Columns** list.
- Drag all other existing hierarchies out of the **Columns** list. The **Columns** list now contains only the **Date Begin.Calendar** hierarchy.

6. Refine the row and column hierarchies to include only the specific hierarchy members that you want to examine.

- In the **Rows** list, right-click the **Customer.Type** hierarchy and choose **Select Items**. The **Select Items** tab displays the levels and members of the **Customer.Type** hierarchy.
- Expand the **All** level and multi-select the customer types that you want to examine (hold **Ctrl** while clicking each customer type in the list), ensuring that you first deselect the **Default (All)** level at the top of the list. For example, you might select all of the following customer types:
- Associate Member
- Company Member
- CPA Member

- Individual Member
- Student Member
- In the **Columns** list, right-click the **Date Begin.Calendar** hierarchy and choose **Select Items**.
- The Select Items tab displays the levels and members of the Date Begin.Calendar hierarchy.
- Expand the **All** level and multi-select the specific calendar years that you want to examine, ensuring that you first deselect the **Default (All)** level at the top of the list.

7. Define the measure to use for the background of the query.
   - In the **Background** list, right-click the currently-displayed measure and choose **Select Items**. The **Select Items** tab displays the measures that are available in the **Group Enrollment Fact** measure group.
   - Select the **Count** measure.
8. *(optional)* In the **Columns** list, click the **Filter Empty Columns** button to ensure that your query won't display years for which there is no data.
9. From the main menu, select **View > Apply Now**. The view displays your query results, using a line chart that enables you to see growth trends and a supplemental grid of tabular membership subscription begin counts for each year.
10. *(optional)* Change the chart style to a bar chart by right-clicking in the chart area and choosing **Chart Type > Bar Chart**. The view displays a bar chart of the same data, which makes it easy to compare the ratio of membership subscription started in each calendar year.
11. You decide that you want to save this view for easy access in the future. You can do so by either saving it as a personal view under **My Views**, or by adding the view to the briefing book (which enables you to share it with others by giving them a copy of the briefing book).

## Analytics implementation

Business intelligence solutions can be complicated to implement because they require:

- Understanding online analytical processing (OLAP) concepts and implementation.
- Setting up special OLAP databases: the data warehouse and the analysis database.

- Configuring and scheduling Integration Services packages that periodically extract data from your iMIS database, load the data into your data warehouse, and transform the contents of your data warehouse into cubes in the analysis database.
- Learning and using OLAP viewer software to analyze the cubes in your analysis database.
  Depending on your organization's experience with implementing business intelligence solutions, you might involve ASI Consulting to ensure you achieve your business intelligence goals quickly.

  **Analytics system requirements**
  iMIS Analytics comprises some program files, OLAP database components, and a briefing book designed for the third-party product ProClarity Professional. The OLAP database components can be installed to the same SQL Server host that contains your iMIS database (a single-tier configuration), or they can be installed to a separate SQL Server host (a two-tier configuration).

- The server host on which the Analytics program is installed is the iMIS application server (appserver).
- The SQL Server host on which the OLAP database components reside is the Analytics host.
- The SQL Server host on which the iMIS database resides is the iMIS host.
- If you installed the OLAP database components on the same host as the iMIS database, the Analytics host is also the iMIS host.
  Analytics is installed as an optional component by performing a Custom installation with the iMIS installer on an application server host.

  iMIS application server requirements
- iMIS application server hosts must meet all stated application server requirements for iMIS.
- ProClarity Professional (version must support SQL Server Analysis Services)

> **Warning!**
>
> Install ProClarity Professional on the iMIS application server before installing Analytics. If it is not present on the appserver when you install Analytics, the Briefing Book will be missing connection information.

- For best results, use the same versions of Windows Server and SQL Server on both the iMIS and Analytics host servers.

Analytics host system requirements

- The Analytics host must meet all database server requirements for iMIS, as well as these more specific requirements:
- 10/100 Mbps network speed (or faster) connection to all related iMIS application server hosts and to all client computers that are running ProClarity Professional
- **Microsoft SQL Server** (non-Express Edition version only)
- **Microsoft Analysis Services**, which must be installed in the default location: C:\Program Files\Microsoft Analysis Services
- **Microsoft SQL Server Business Intelligence Development Studio**
- The database server host that contains the SQL Server instance in which you want to create your Analytics data warehouse and analysis database must also have a default instance of SQL Server installed on it, and that default instance must have **Microsoft SQL Server Integration Services** (SSIS) installed. This is required by the Integration Services packages used by Analytics.
- If Analytics is installed on a separate database server host from the iMIS database server host, both hosts must be members of the same Windows domain, and both hosts must be configured to allow network DTC access (see Enabling network DTC access for multi-server configurations). This is required by the Integration Services packages used by Analytics.

iMIS host system requirements

- The iMIS host must meet all stated database server requirements for iMIS.
- The iMIS database must contain the license key for Analytics.

Workstation requirements

- OLAP viewer software; ProClarity Professional recommended.
- Although you can use any OLAP viewer to browse the Analytics cubes, the Analytics Briefing Book is designed to work with ProClarity Desktop Professional. The Analytics Briefing Book contains many useful predefined views to help you analyze your iMIS business performance.
- Processor speed, memory, and disk space sufficient to meet the requirements for ProClarity Professional
- Workstations running ProClarity Professional must be able to address the Analytics host by using a standard Windows domain computer name

> **Note:** Using ProClarity Professional on a remotely-accessed Terminal Server or Citrix machine is untested.

> **Note:** VPN connections from ProClarity Professional on a workstation to the domain containing the Analytics host is untested.

### Installing Analytics

You can install iMIS Analytics in a two-tier or single-tier configuration. See Basic concepts for your IT staff to determine which configuration is best for your implementation of Analytics.

> **Note: BUILTIN\Administrators** must be a valid login for your SQL Server.

To ensure **BUILTIN\Administrators** is available as a SQL Server login:

1. Log in to SQL using the sa account.
2. Open SQL server management tools.
3. Select the SQL service, and go to **Security > Logins**. Verify that **BUILTIN \Administrators** is a listed login.
4. Right-click on **BUILTIN \Administrators** and go to **Properties > Server Roles**.
5. Verify that **BUILTIN \Administrators** has the following roles:

- **public**
- **sysadmin**

If **BUILTIN\Administrators** is not listed as a SQL Server login, do the following:

1. Select the SQL service, and go to **Security > Logins**.
2. Right-click on **Logins** and go to **New Login**.
3. Enter **BUILTIN\Administrators** in the **Login name** field.
4. Click **OK**.
5. Right-click on **BUILTIN \Administrators** and go to **Properties > Server Roles**.
6. Verify that **BUILTIN \Administrators** has the following roles:

- **public**
- **sysadmin**

Before you begin

- Make sure that the Analytics host, iMIS host, and iMIS application server all meet the Analytics system requirements.
- Note the SQL connection information for the iMIS database on the iMIS host, and for the SQL environment on Analytics host, if you are installing a two-tier configuration.

> **Note:** When installing Analytics, the value **local** cannot be used for the service name; the actual service name must be used, for example, **sqlser123** instead of **local**.
>
> The install process will complete if you use local; however, analytics jobs will not run without errors.

- Make sure your iMIS product license keys include the key for Analytics.

Installation scenarios

Installing Analytics requires extra steps if you are upgrading iMIS and/or Analytics

| Scenario | Installation path |
| --- | --- |
| Neither iMIS nor Analytics has been installed in your organization before, so you are installing both products at the same time. | Perform a standard installation of iMIS, choosing a **Custom** installation and selecting the optional component **iMIS Analytics**. |
| Analytics has never been installed before, but you currently have iMIS 15.1.3 or higher installed. You are | Perform these tasks in the order listed:<br>• Perform a standard upgrade of iMIS, choosing |

| | |
|---|---|
| therefore installing Analytics and upgrading iMIS. | a **Complete** installation.<br><br>**Warning!**<br>Do not install Analytics now!<br><br>• Verify that iMIS is working properly.<br>• Install Analytics from **Add/Remove Programs** (see below).<br>• Run the package (see Manually running the Update iAnalytics package) to populate the new analysis database installed by this latest release of Analytics. |
| You have both Analytics 1.0 and iMIS 15.1.3 or higher installed. You are therefore upgrading both products.<br><br>**Warning!**<br>You must do so in two separate passes. | Perform these tasks in the order listed:<br><br>• Upgrade the SQL Server environment on your Analytics host as needed.<br>• Ensure that the Analytics host meets all requirements.<br>• Perform a standard upgrade of iMIS, choosing a **Complete** installation.<br><br>**Warning!**<br>Do not install Analytics now!<br><br>• Verify that iMIS is working properly.<br>• Install Analytics from **Add/Remove Programs** (see below).<br>• Migrate your data warehouse (see Migrating the Analytics 1.0 data warehouse) to the newly installed one.<br>• Run the package (see Manually running the |

| | |
|---|---|
| | Update iAnalytics package) to populate the new analysis database.<br>• Verify that Analytics is working properly.<br>• Delete the old data warehouse and analysis database from your SQL Server environment. Only the new **iMIS_Analytics** data warehouse and **iAnalytics** analysis database should remain. |

To configure SQL Server 2012 services for Analytics

If you are using a separate host machine for Analytics, you need to set all of the SQL Server 2012 services to log on with the Local System account.

1. After you install SQL Server 2012, open **Start > Administrative Tools > Services**.
2. Set **Log On > Log on As** to use the **Local System** account on each of the SQL Server services:
   - **SQL Server**
   - **SQL Agent**
   - **Analysis Service**
   - **Integration Services**
3. Restart all of the services.

To install Analytics from Add/Remove Programs

> **Warning!**
>
> Perform this procedure only if your scenario above directs you to do so.

1. Modify the existing iMIS installation by using **Add or Remove Programs**.
   - From the application server's desktop, choose **Start > Control Panel > Add or Remove Programs**. The **Add or Remove Programs** window appears.
   - From the list of **Currently installed programs and updates**, select **iMIS** and click **Change/Remove**. The welcome page of the **iMIS - InstallShield Wizard** appears.
   - Select **Modify** and click **Next**. The **Select Features** page appears.

- **Important!** Every checkbox that is currently selected should remain selected to prevent the removal of existing iMIS components.

> **Warning!**
>
> If an already-installed component is selected on this page, the wizard should maintain installation of that component in subsequent steps. Ensure that every checkbox remains checked.

- In the **Optional Components** section, select the **iMIS Analytics** checkbox and click **Next**. The **iMIS Analytics** page appears.

2. Specify the connection information for the Analytics data warehouse and analysis database.

- *(optional)* From the **iMIS Analytics SQL Server** instance drop-down list, select a different SQL Server instance in which you want to create your Analytics data warehouse and analysis database.

> **Warning!**
>
> The database server host that contains the SQL Server instance you specify must also have a default instance of SQL Server installed on it, and that default instance must have Microsoft SQL Server Integration Services (SSIS) installed. If not, the Integration Services packages used by Analytics will not run successfully.

- *(optional)* In the **Data warehouse name** field, replace the default name for the Analytics data warehouse with a new name of your choosing.
- *(optional)* In the **Analysis database name** field, replace the default name for the Analytics analysis database with a new name of your choosing.

3. Click **Next**. The **Specify iMIS configuration page** appears, but it is blank because you cannot change any values associated with the current iMIS installation.
4. Click **Next**. The **Review modify settings** page appears.

5. Ensure that the installation settings are accurate and click **Next**. The wizard displays setup status as it copies files and configures Analytics, and then the **Maintenance Complete** page appears.
6. Review all messages that are displayed on the completion page and take appropriate actions as needed.
7. Click **Finish**.

**Migrating the Analytics 1.0 data warehouse**

When upgrading from iMIS Analytics 1.0 to the current release of Analytics, as described in Installing Analytics, you must manually migrate your data warehouse tables from Analytics 1.0 into the new **iMIS_Analytics** data warehouse that is created when you install the current release of Analytics.

> **Warning!**
>
> Certain tables and views must not be imported from the older data warehouse. These objects are listed in the following procedure.

Before you begin

- All Analytics system requirements for the Analytics host must be in place.
- The following procedure must be performed on the Analytics host.

To migrate the Analytics 1.0 data warehouse to the Analytics 15.0.x data warehouse

1. Using Microsoft SQL Server Management Studio, connect to the **Database Engine** on the Analytics host.
2. In the **Object Explorer** pane, expand the **Databases** folder.
3. Right-click the **iMIS_Analytics** database and choose **Tasks > Import Data**. The welcome page of the S**QL Server Import and Export Wizard** appears.
4. Click **Next**. The **Choose a Data Source** page appears.
5. Using **the Server name** and **Database** fields, specify your Analytics 1.0 data warehouse, then click **Next**. The **Choose a Destination** page appears.
6. Click **Next** without changing any values. The **Specify Table Copy or Query** page appears.
7. Select **Copy data from one or more tables or views**, then click **Next**. The **Select Source Tables and Views** page appears.

8. In the first column, select every table except for the following:
1. DWMColumn
2. DWMTable
3. DWParameters
9. Ensure that you have not selected any views in the list, then click **Next**. The **Save and Execute Package** page appears.
10. Ensure that the **Execute immediately** checkbox is selected and click Finish twice to begin importing the selected tables from the old data warehouse. The wizard displays status while it imports the tables.

**Enabling network DTC access for multi-server configurations**

Due to stronger security on network communications enabled by recent service packs on Microsoft server operating systems (and present by default in newer server operating systems), network Distributed Transaction Coordinator (MSDTC) access might be disabled on one or both of the SQL server hosts in a multi-server configuration of iMIS Analytics.

If you have installed Analytics in a multi-server configuration, you must ensure that both the iMIS host and the Analytics host are configured to allow network DTC access.

Before you begin

Ensure that both your Analytics host and your iMIS host meet all system requirements (see Analytics system requirements).

To enable network DTC access for multi-server configurations

1. On the Analytics host, choose **Start > Control Panel > Administrative Tools > Component Services**. The **Component Services** window appears.
2. In the console tree, click **Component Services**, then expand the **Computers** sub-folder. The **My Computer** icon appears in the console tree.
3. Right-click the **My Computer** icon and choose **Properties**.
4. On the **MSDTC** tab, click **Security Configuration**. The **Security Configuration** window appears.
5. In the **Security Settings** area, ensure that *all* of the following checkboxes are selected:

- **Network DTC Access**
- **Allow Remote Clients**
- **Allow Remote Administration**

- **Allow Inbound**
- **Allow Outbound**
- **Enable XA Transactions**

6. In the **Transaction Manager Communication** section, ensure that the **Mutual Authentication Required** option is selected.
7. Click **OK**. A confirmation message to stop and restart the MSDTC service appears.
8. Click **Yes**, then click **OK** at all further messages and windows.
9. Repeat this process on the iMIS host.

### Manually running the Update iAnalytics package

When you install iMIS Analytics, the setup program creates a scheduled Integration Services package named **Update** *instanceName_analysisDBName* on the Analytics server host. The package extracts data from the iMIS database, updates the Analytics data warehouse, and updates the Analytics cubes.

The package is scheduled by default to run every night at 4:00 a.m. server time, but you can modify the schedule by using the procedure described in Changing the scheduled run time of the Update iAnalytics package.

You might occasionally need to manually execute this package during the business day, such as after first installing Analytics (to populate the data warehouse and cubes), or when configuring Analytics to track custom iMIS 10 demographics (see Configuring Analytics to track custom iMIS demographics).

Before you begin

Analytics must be properly installed and configured. See Installing Analytics for more information.

> **Note:** Depending on the size of your iMIS database, this process can take a long time to complete.

To manually run the Update iAnalytics package

1. Launch SQL Server Management Studio.

   > **Note:** For SQL Server 2012, you must run as administrator: right-click **SQL Server Management Studio** and select **Run As Administrator**.

2. Connect to the **Database Engine** on the Analytics host.
3. In the **Object Explorer** pane, browse to **SQL Server Agent > Jobs**. The Summary Page displays the scheduled jobs on the Analytics host.
4. Right-click the **Update** *instanceName_analysisDBName* job and choose **Start Job at Step**. The **Start Jobs** window appears and displays status while it runs the job. When the job has completed successfully, the **Start Jobs** window displays a success message.

Troubleshooting issues with the Update iAnalytics package

If the facts in the iMIS cube have no data or if the data does not match the contents of the data warehouse after running the Update iAnalytics package (evidenced by the Briefing Book showing no data or incorrect or old data), you must run two stored procedures to fix the problem. This needs to be done only once.

1. Using Microsoft SQL Server Management Studio, connect to the **Database Engine** on the Analytics host.
2. Use the query window to execute the following two stored procedures, with the listed parameters:

```
exec asi_dwSetLAll 1
exec asi_DWSInitDB
```

3. Re-run the Update iAnalytics package.

**Changing the scheduled run time of the Update iAnalytics package**

The Integration Services package **Update** *instanceName*_**iAnalytics** is scheduled by default to run every night at 4:00 a.m. server time, provided that the SQL Server Agent is started. This package extracts data from the iMIS database, updates the iMIS Analytics data warehouse, and updates the Analytics cubes. You can specify any schedule for this package.

> **Note:** Depending on the size of your iMIS database, this process can take a long time to complete.

Before you begin

Analytics must be properly installed and configured. See Installing Analytics for more information.

To change the scheduled run time of the Update iAnalytics package

1. Using Microsoft SQL Server Management Studio, connect to the **Database Engine** on the Analytics host.
2. In the **Object Explorer** pane, browse to **SQL Server Agent > Jobs**. The Summary Page displays the scheduled jobs on the Analytics host.
3. Right-click the **Update** *instanceName*_**iAnalytics** job and choose **Properties**. The **Job Properties** window appears.
4. On the **Schedules** page, from the **Schedule list**, select **Update** *instanceName*_**iAnalytics.**
5. Click **Edit**. The **Job Schedule Properties** window appears, displaying the current schedule for the **Update** *instanceName*_**iAnalytics** job.
6. Modify the schedule and click OK several times to close all open dialogs.
7. If the **SQL Server Agent** is not already started, right-click the **SQL Server Agent** object and choose **Start**.

**Installing the Analytics Briefing Book on client computers**

Users in the organization who have ProClarity Professional installed on their computers can use the supplied iMIS Analytics Briefing Book to analyze the data on the Analytics host. The Briefing Book is pre-configured with all the required connection information, so you need only to copy the Briefing Book from the iMIS application server where Analytics is installed to each user's computer.

> **Note:** If you did not install ProClarity Professional on the appserver before installing Analytics, the Briefing Book will be missing required connection inform-

ation. In this case, manually configure the connection information in the Briefing Book before you distribute it to Analytics users.

Before you begin

- Analytics must be properly installed (see Installing Analytics) and configured.
- A version of ProClarity Professional that supports SQL Server Analysis Services must be installed on the user's computer.
- The client computer must be able to address the *Analytics host* (the database server host where the Analytics data warehouse and analysis database are installed) by using a standard Windows domain computer name.

To install the Analytics Briefing Book on client computers

**Note:** See your ProClarity Professional documentation for details.

1. Use Windows Explorer to copy the **iMIS Analytics.bbk** file from the **Analytics** folder on an iMIS application server where the optional Analytics product was installed (usually C:\Program Files\ASI\iMIS\Analytics).
2. Paste the **iMIS Analytics.bbk** file into an appropriate folder in the client computer (such as the user's **My Documents** folder).
3. Open the **iMIS Analytics.bbk** file in ProClarity Professional. The Analytics data appears.

Troubleshooting connection issues with the Analytics Briefing Book

If the Briefing Book does not display the Analytics data, but instead prompts you to enter your username and password, the Briefing Book failed to connect to the Analytics host. This could be caused by one or both of the following issues:

- The SQL Server host where the Analytics data warehouse and analysis databases are located is not addressable from the client computer by using a standard Windows domain computer name.
- The Briefing Book is missing connection information, which can occur if you install Analytics before installing ProClarity Professional on an iMIS appserver.

Use the following steps to correct these issues:

1. Work with your network administrator and your database administrator to ensure that the client computer can address the Analytics host by domain name.

2. In ProClarity Desktop Professional, use the **Change Connection Information Wizard** to examine and modify the connection information defined in your original copy of **iMIS Analytics.bbk** Briefing Book. You must ensure that the Briefing Book uses the following values:

- **Provider** - MSOLAP (SQL 9.0)
- **Server Name** - the full domain name of the SQL Server instance that contains your Analytics analysis database (the Analytics host). If Analytics is installed in a named instance, you must use the naming convention [hostDomainName]\[instanceName].
- **Catalog** - iAnalytics (this is configurable)
- **Cube** - iMIS

**Granting read access to the analysis database**

To enable people who aren't SQL Server administrators to view the Analytics analysis database by using the Analytics Briefing Book, you must enable the **Everyone** role in SQL Server to have read access to the analysis database.

Before you begin

Analytics must be properly installed and configured. See Installing Analytics for more information.

To grant read access to the analysis database

1. Using Microsoft SQL Server Management Studio, connect to **Analysis Services** on the Analytics host.
2. In the **Object Explorer** pane, expand the tree to view the contents of the **Databases > iAnalytics > Roles** folder.
3. Right-click the **everyone** role and choose **Properties**. The **Edit Role** window appears.
4. On the **Data Sources** page, in the **iAnalytics** data source row, specify **Read** access and select the **Read Definition** checkbox.
5. On the **Cubes** page, in the **iMIS** cube name row, specify **Read** access, **Drillthrough** local cube/drillthrough access, and select the **Process** checkbox.
6. Click **OK** to save your changes.

**Configuring Analytics to track custom iMIS demographics**

You can track custom iMIS demographics (custom fields) as attributes in the iMIS Analytics customer dimensions. Only fields from single-instance custom tables can be

tracked in Analytics. If there is demographic data in multi-instance custom tables that you want to track in Analytics, you must redefine the data in iMIS as a single-instance custom table. Consult your Authorized iMIS Solution Provider (AiSP) for assistance with this process.

Before you begin

- Read Custom iMIS Demographics and Slowly Changing Dimensions in Basic concepts for your IT staff.
- Perform this procedure on the iMIS application server where Analytics is installed.
- If SQL Server Business Intelligence Development Studio (or any Visual Studio-based window) is currently open on the host, close the window before starting this procedure. If Visual Studio is left open during the early parts of this procedure, you might have difficulty viewing newly-added custom fields.

To configure Analytics to track custom iMIS demographics

> **Warning!**
>
> The **Analytics Configuration** tool used in this procedure is meant primarily for advanced development and customization of Analytics. Using this tool for any purpose other than the specific goals of this procedure is unsupported at this time.

1. On the iMIS application server where Analytics is installed, open your Analytics folder, such as C:\Program Files\ASI\iMIS\Analytics.
2. Double-click **AnalyticsConfiguration.exe**. The Analytics Configuration window appears.
3. In the **i15.UseCustomerExtensions** row, set the **Value** to 1.
4. Click **File > Save**.
5. Choose **Tools > Mappings**. The Analytics Mappings window appears.
6. From the **Table List**, select the **CustomerExt** dimension table. The editor grid displays all of the fields from single-instance custom tables in the iMIS database that can be tracked in Analytics.
7. Select the fields to track and specify their slowly changing dimension (SCD) type:

- In the **Active** column, select the checkbox corresponding to each custom field that you want to track in Analytics.

- In the **SCD Type** column, specify which slowly changing dimension type to use for each field that you marked as **Active**:
- Enter 2 to specify Type 2 (preserves history). Use this slowly changing dimension (SCD) type if you want to preserve a history of older attribute values in the data warehouse (by adding new records) when the custom field is changed in iMIS.
- Enter 1 to specify Type 1 (overwrites history). Use this SCD type if you want to always overwrite the current attribute value in the data warehouse when the custom field is changed in iMIS.
- Enter 0 to never update records. Use this special value for attributes that you never want to update from its original value when first extracted into the data warehouse.

8. Click **Save** to save the changes that you have made to the **CustomerExt** table definition.
9. Close the **Analytics Mappings** window.
10. Connect to the Analytics analysis database
    - Choose **Start > All Programs > Microsoft SQL Server > SQL Server Business Intelligence Development Studio**. The Visual Studio window appears.
    - Choose **File > Open > Analysis Services Database**. The **Connect To Database** window appears.
    - In the **Server** field, specify the SQL Server instance that contains your Analytics analysis database. This field is case-sensitive.
    - From the **Database** drop-down list, select your analysis database (named **iAnalytics** by default).
    - Click **OK**. The **Solution Explorer** pane displays the contents of your analysis database.
11. Update the Analytics data warehouse structure to incorporate the new iMIS custom fields.
    - In the **Solution Explorer**, in the **Data Source Views** folder, right-click the **iAnalytics** data source view and choose **Open**. The **iAnalytics** data source view appears.
    - In the toolbar area for the data source view, click the **Refresh Data Source View** icon. The R**efresh Data Source View** window appears. All of the iMIS custom fields that you marked as **Active** in the **Analytics Mappings** window should be listed as **Added** for the **DWCustomerExtDim** table.
    - Click **OK**.
    - The **DWCustomerExtDim** table in the data source view is updated to include new columns for each of the iMIS custom fields.

- Choose **File > Save All** to save the changes to the data source view and to update the Analytics data warehouse structure accordingly.

12. Update the Analytics analysis database dimensions to incorporate the new columns that you added to the data warehouse.

- In the **Solution Explorer**, in the **Cubes** folder, right-click the iMIS cube and choose **Open**. The **Cube Structure** tab for the iMIS cube appears.
- In the toolbar area for the **Cube Structure** tab, click the **Add Cube Dimension** icon. The **Add Cube Dimension** window appears.
- From the **Select dimension** list, select **Customer Ext Dim** and click **OK**. The **Customer Ext Dim** dimension is added to the **Dimensions** lists.
- In the **Hierarchies** tab of the **Dimensions** list, right-click the **Customer Ext Dim** dimension and choose **Edit Dimension**. The **Dimension Structure** tab for the **Customer Ext Dim** dimension appears.
- In the **Data Source View**, locate the **DWCustomerExtDim** data source and scroll the list of columns in the data source until the new iMIS custom fields are visible.
- For each column in the **DWCustomerExtDim** data source that corresponds to the new iMIS custom fields that you want to track in Analytics, perform the following steps.

1. Multi-select all of the columns (hold **Ctrl** while selecting each column).
2. Right-click the selected columns and choose **New Attribute from Column**. The columns are added to the **Attributes** list for the **Customer Ext Dim** dimension.

- Choose **File > Save All** to save the changes to the **Customer Ext Dim** dimension and the iMIS cube in the analysis database. The **Microsoft Visual Studio** window appears, prompting you to reprocess various objects in the analysis database.
- Click **Yes**. The **Process Object(s)** window appears.
- Click **Run**. The **Process Progress** window appears and displays status while the analysis database is reprocessed.
- When the reprocessing has completed and the **Status** field displays **Process succeeded**, close all SQL Server  Business Intelligence Studio windows.

13. Update the data warehouse and analysis database with the new custom fields from the iMIS database by manually running the Update iAnalytics package.

14. Verify that the new custom fields are available in Analytics.
    - Open the **iMIS Analytics.bbk** file in ProClarity Professional. The Analytics data appears.
    - In the **Briefing Book** area, expand the **Revenue** folder and select the **Revenue by Product Class** view. The **Revenue by Product Class** view appears.
    - Choose **View > Setup Panel**. The **Setup Panel** appears.
    - Verify that the **Customer Ext Dim** dimension is listed in the **Custom Hierarchies** for the view.
    - Expand the **Customer Ext Dim** dimension and verify that the new custom fields from the iMIS database are listed as attributes in the dimension.
15. Create a new view that uses one of the custom fields.
    - Ensure that the **Revenue by Product Class** view is still displayed, and the **Customer Ext Dim** dimension is still expanded in the **Setup Panel**.
    - Right-click an attribute in the **Customer Ext Dim** dimension that corresponds to one of the new custom fields and choose **Move to Rows**. The attribute appears at the top of the **Rows** list of the **Setup Panel**.
    - In the **Rows** list, select and drag the attribute from the top of the list to the bottom (immediately after the **Product Class** hierarchy).
    - Choose **View > Apply Now**. The table portion of the view changes to display new subrows within each of the product class rows, and the graph portion also changes accordingly to show more granular breakdowns of each product class based on the attribute that you added to the view. For more information, see Viewing Analytics cubes for ad-hoc analysis (see Viewing the iMIS cube for ad-hoc analysis).

**Defining a default country code**

Several dimensions in the cube created by iMIS Analytics rely on the **Country** portion of a contact record's address information. For this reason, it is important to assign a default country code to iMIS contact records that are missing country information.

When the Analytics data warehouse is populated, a special country code (**USA** by default) is inserted into data from iMIS that does not contain country information. You can change this default country code to a different value at any time.

> **Note:** Changes you make to the default country code affect only the Analytics data warehouse and analysis database. This code is not inserted into your iMIS database. Changes that you make to the default country code are not retroactive.The new default country code will be used only for new records that are brought into the data warehouse.

Before you begin

- You must perform this procedure on the iMIS application server where Analytics is installed.
- Analytics must be properly installed and configured. See Installing Analytics for more information.
- If SQL Server Business Intelligence Development Studio (or any Visual Studio 2005-based window) is currently open on the host, close the Visual Studio window before starting this procedure.

To define a default country code

> **Warning!**
>
> The **Analytics Configuration** tool used in this procedure is meant primarily for advanced development and customization of Analytics. Using this tool for any purpose other than the specific goals of this procedure is unsupported at this time.

1. On the iMIS application server where Analytics is installed, open Windows Explorer and navigate to the C:\Program Files\ASI\iMIS\Analytics folder.
2. Double-click **AnalyticsConfiguration.exe**. The **Analytics Configuration** dialog appears.
3. In the **i15.DefaultBlankCountry** row, set the **Value** to a valid 2- or 3-digit country code.
4. Click **File > Save**.
5. Update the data warehouse and analysis database by manually running the **Update iAnalytics** Integration Services package. (For more information, see Manually running the Update iAnalytics package.)

**Defining the fiscal year used by Analytics**

iMIS Analytics is configured at installation time to use the fiscal year that is currently defined in the **AR/Cash** feature of iMIS. If you later change the defined fiscal year in iMIS, you must manually configure Analytics accordingly so that the fiscal year is the same in both products.

> **Note:** Changes you make to the fiscal year in Analytics affect only the Analytics data warehouse and analysis database.

Before you begin

- You must perform this procedure on the iMIS application server where Analytics is installed.
- If SQL Server Business Intelligence Development Studio (or any Visual Studio 2005-based window) is currently open on the host, close the Visual Studio window before starting this procedure.

To define a default country code

> **Warning!**
>
> The **Analytics Configuration** tool used in this procedure is meant primarily for advanced development and customization of Analytics. Using this tool for any purpose other than the specific goals of this procedure is unsupported at this time.

1. On the iMIS application server where Analytics is installed, open Windows Explorer and navigate to the C:\Program Files\ASI\iMIS\Analytics folder.
2. Double-click **AnalyticsConfiguration.exe**. The **Analytics Configuration** dialog appears.
3. In the **i15.ETL.FiscalYearBegins** row, set the **Value** to a number from 1 to 12 that corresponds to the calendar month in which the fiscal year begins. For example, if the fiscal year begins in April, enter 4.
4. Click **File > Save**.
5. Update the data warehouse and analysis database by manually running the **Update iAnalytics** Integration Services package. (For more information, see Manually running the Update iAnalytics package.)

**Securing Analytics**

iMIS Analytics provides no security capabilities beyond that supported by Microsoft SQL Server. Use Microsoft SQL Server Management Studio to define security roles and permissions for the Analytics data warehouse and for the Analytics cubes.

- Connect to the **Database Engine** on the Analytics host to define properties for the Analytics data warehouse.
- Connect to **Analysis Services** on the Analytics host to define properties for the Analytics cubes.

**Uninstalling Analytics**

Because iMIS Analytics comprises SQL Server and Analysis Services databases, Integration Services packages, jobs, and Briefing Book files for ProClarity Professional, the Windows uninstall process cannot completely remove all Analytics components. After removing Analytics by using the Windows **Add or Remove Programs** utility, you must also manually remove some Analytics components.

To uninstall Analytics from the Analytics host

1. On the Analytics host, choose **Start > Control Panel > Add or Remove Programs**. The **Add or Remove Programs** window appears.
2. From the program list, select iMIS and click **Change/Remove**. The Welcome page of the **iMIS - InstallShield Wizard** appears.
3. Select the **Modify** option and click **Next**. The **Select Features** page appears.
4. Clear the **iMIS Analytics** checkbox located beneath the **Optional Components** node.
5. Click **Next**. The wizard displays status information as it removes Analytics. When the uninstallation is complete, the **Maintenance Complete** page appears.
6. Click **Finish**.
7. Remove SQL Server Analysis Services components that are specific to Analytics.
   - Use SQL Server Management Studio to connect to **Analysis Services** on the Analytics host.
   - Remove the database named **iAnalytics** (the analysis database)
8. Remove SQL Server Database Engine components that are specific to Analytics.
   - Use SQL Server Management Studio to connect to **Database Engine** on the Analytics host.

- Remove the following components:
- The database named **iMIS_Analytics** (the data warehouse)
- The SQL Server Agent job named **Update** *instanceName_analysisDBName*

9. Remove SQL Server Integration Services components that are specific to Analytics.

- Use SQL Server Management Studio to connect to **Integration Services** on the Analytics host.
- Remove the stored package named **Update** *instanceName_analysisDBName* (located in the **MSDB** folder)

To uninstall Analytics from client computers

- Use Windows Explorer to remove the briefing book (**iMIS Analytics*.bbk**).

## Using iMIS Certification

Welcome to iMIS Certification, a highly organized and integrated tool for managing your organization's certification programs. iMIS Certification assists your organization in giving credits to members for activities or achievements defined by your organization. Providing a certification program on your site keeps your members well-informed and coming back to your site to check on the status of their certification as they complete each program requirement.

iMIS Certification is a self-service feature that gives your members the ability to:

- Stay informed and up-to-date with training and certification programs
- Manage and view their certification progress
- Stay engaged with your organization and your website

iMIS Certification allows your staff to:

- Define and manage a certification program
- Add component requirements
- Offer a variety of ways to complete the requirement
- Link offerings to iMIS products and events as well as HTML links

**Requirements**: Certification license key

### How Certification Works in iMIS

iMIS Certification allows you to create several certification programs, each with a different set of completion criteria. For example, you can set up a simple program requiring

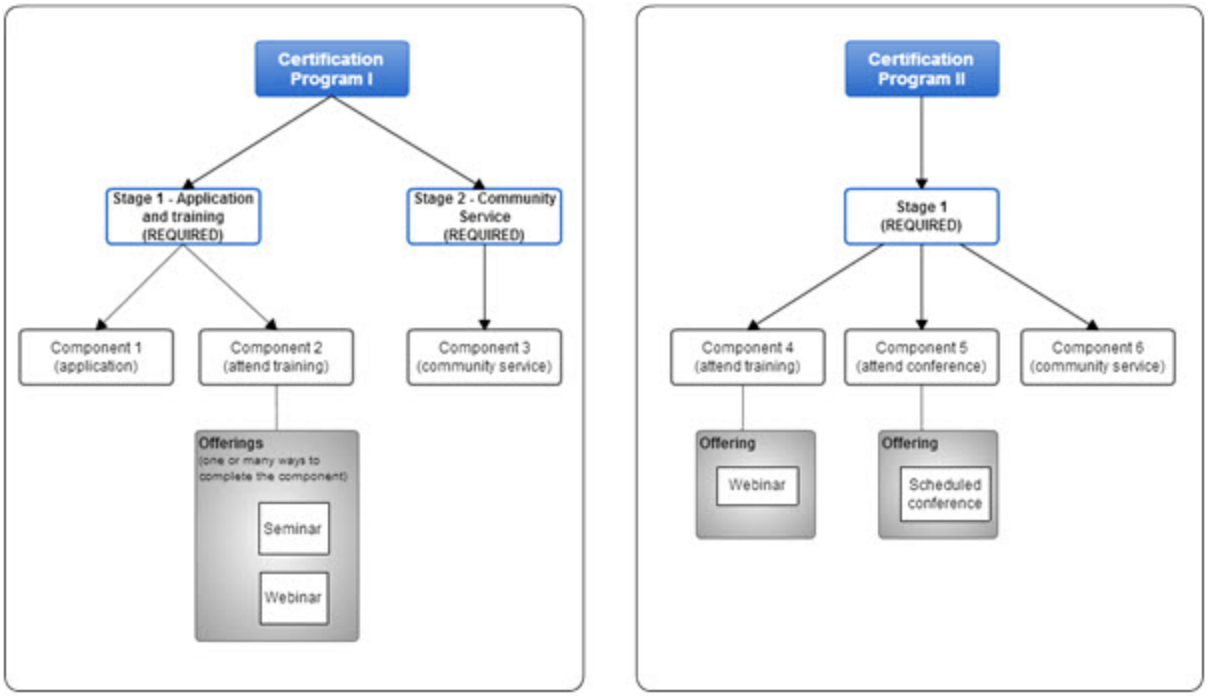
customers to attend three of five available seminars over a specified time period, with each seminar defined as a certification component. Attendance at the seminar would be considered credit. You could also create a very complex program with 30 or 40 components and a three-year period for program completion.

As a convenience to your members, you can create offerings for each component that offer one or many ways for a member to complete a requirement. Offerings can be related to an iMIS event or product, or a custom resource with the specific date, time, and location when a member can complete the component requirement. A component may have multiple offerings, such as different dates when a course is offered. For example, a webinar component may contain an offering with the webinar provided on various dates.

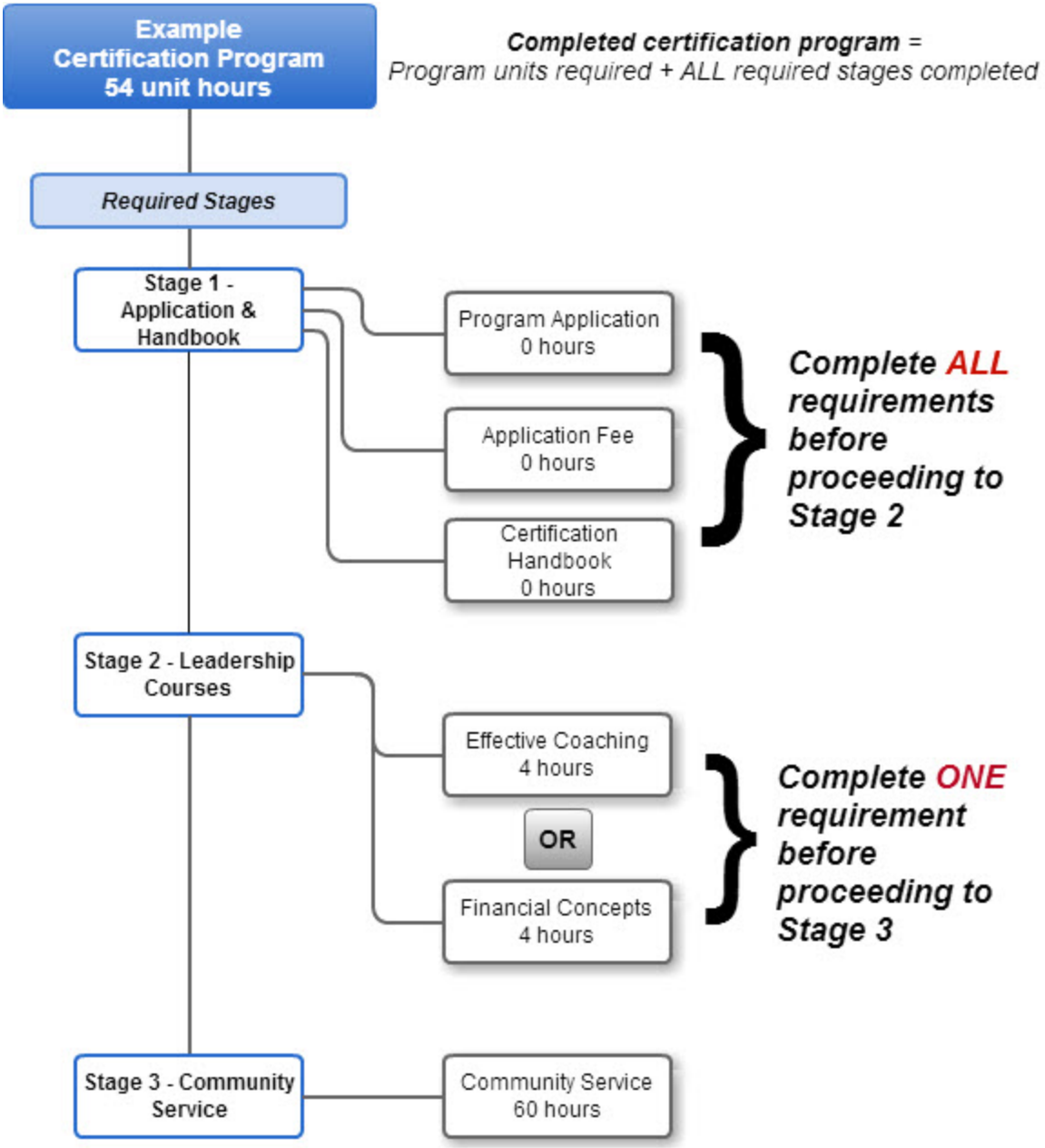
Certification programs can also be set up in ordered stages that require a stage to be completed before proceeding on to the next stage.

You will use the Staff site to set up and manage your certification programs, define program components, and approve requirement and program completion. A certification program can be set up with just a few requirements for completion, or as a more complex set of requirements with a series of required stages.

Certification - Example 1



Certification - Example 2




## Using iMIS Certification

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**Requirements**: Certification license key

### How Certification Works in iMIS

iMIS Certification allows you to create several certification programs, each with a different set of completion criteria. For example, you can set up a simple program requiring customers to attend three of five available seminars over a specified time period, with each seminar defined as a certification component. Attendance at the seminar would be considered credit. You could also create a very complex program with 30 or 40 components and a three-year period for program completion.

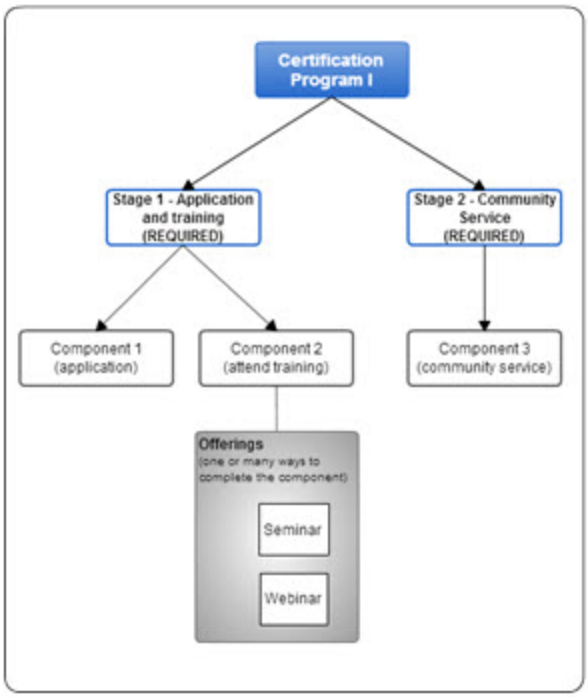
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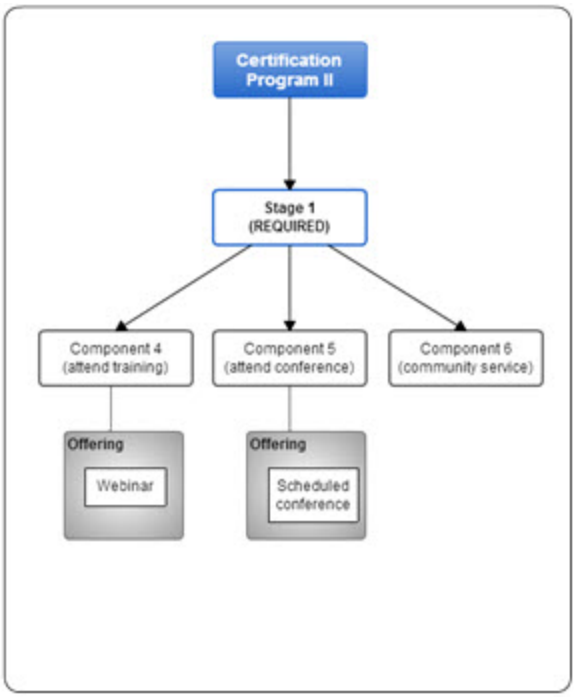
Certification programs can also be set up in ordered stages that require a stage to be completed before proceeding on to the next stage.

You will use the Staff site to set up and manage your certification programs, define program components, and approve requirement and program completion. A certification

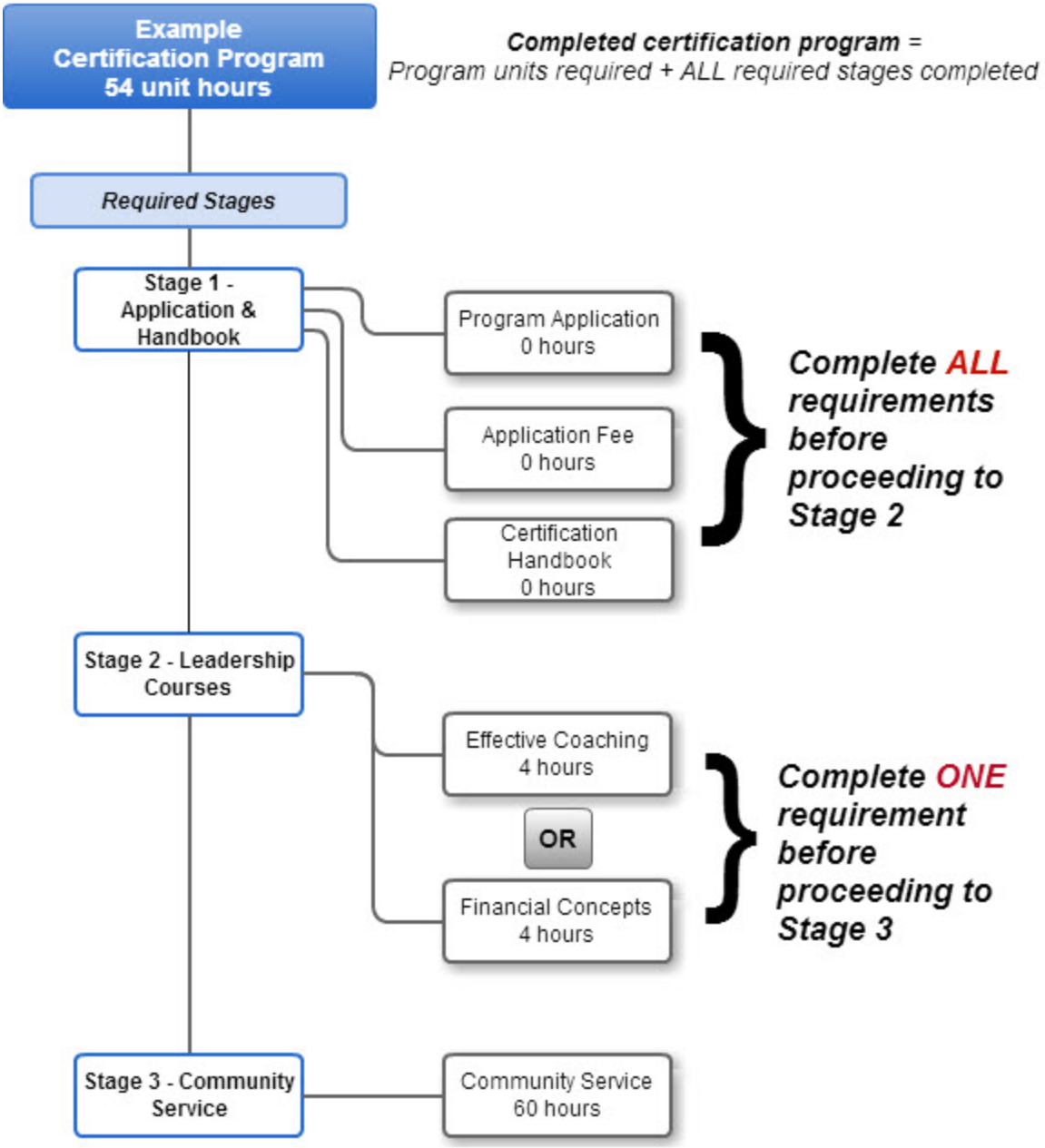
program can be set up with just a few requirements for completion, or as a more complex set of requirements with a series of required stages.

Certification - Example 1




Certification - Example 2




## Creating a certification program

A certification program is a defined set of components or training programs offered by your organization to members to prove that they have achieved a measured level of knowledge within a designated timeline.

Plan out your certification program carefully since an enrollee must complete the required number of units and all of the required stages in the program before a program is considered complete.

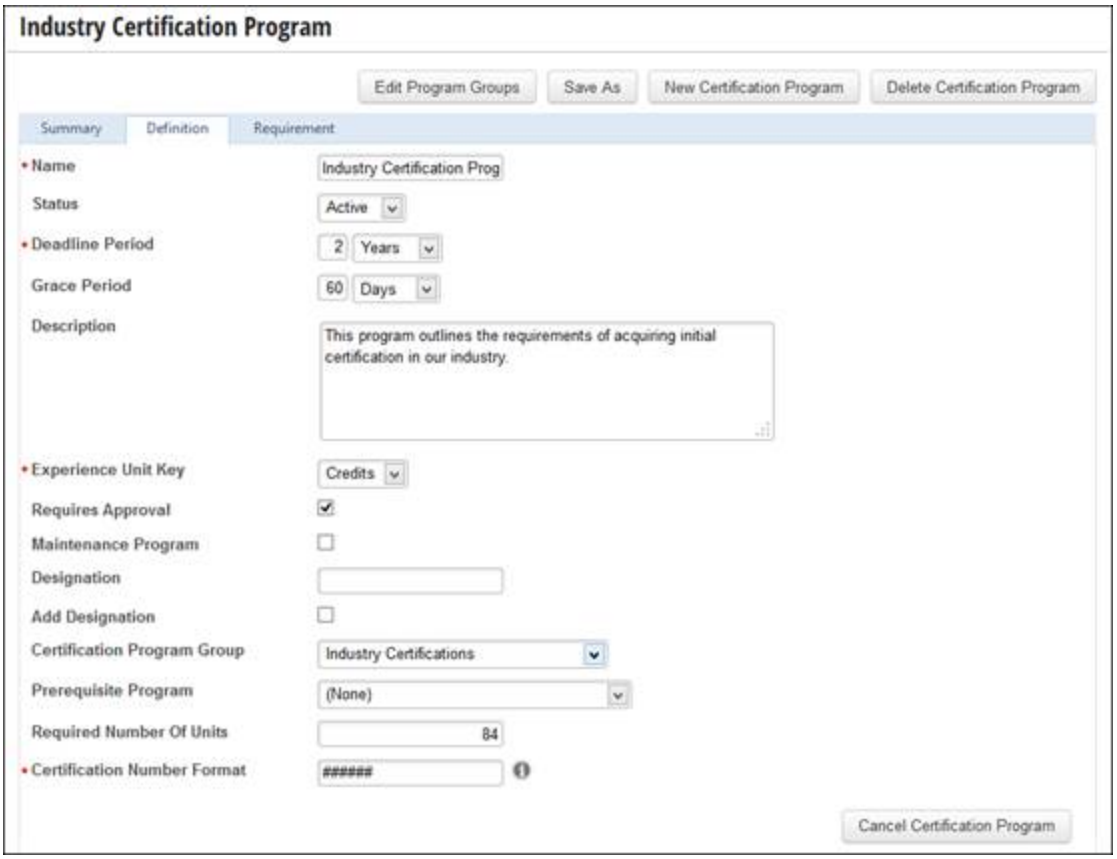
Here are the basic building blocks to setting up or defining your certification program:

Create a certification program and define the properties
From the Staff site, go to **Certification > Set up programs > Certification programs**:

1. Select **Create a new Certification program**.
2. (**Definition** tab) Define your certification program information and click **Save**.

- **Status** – Select **Active** or **Inactive**. Inactive programs will not be viewable by any users, including staff. However, participants who have already enrolled for the program will be able to see programs marked as inactive.
- **Deadline Period** – (Required) Provides a time limit in which to complete the program. Enter a numeric value, and choose years, months, weeks, or days from the drop-down menu. Once an enrollee has begun the program, the deadline period will initiate.
- **Grace Period** - Provides a time extension past the deadline for enrollees to complete the program.
- **Experience Unit Key** - A unit of measurement to track progress using industry-recognized terminology. Select a unit from the drop-down. If the unit type you need is not available, you can add one in Adding unit types. Programs without a unit key will not appear to the public.
- **Requires Approval** - Select this checkbox to require approval of program completion, once an enrollee has completed the required stages and number of units.
- **Maintenance Program** - Select this checkbox to indicate that the program is repeatable and allows enrollees to enroll again after completion.
- **Designation** – Describes an acronym, such as CPA, that follows the contact record's name to indicate they have completed the requirements of a certification program and have earned this designation.
- **Add Designation** - Ensures that the designation is added to the contact record upon successful completion of this certification program.

- **Certification Program Group** – Select a program group option from the drop-down list. Program Groups can be used with any certification program to associate multiple certification programs together. To add program groups, see Defining Program groups.
- **Prerequisite Program** – Select a program from the drop-down to set it as a prerequisite requirement.
- **Automatically enroll when prerequisite is completed** - Select this option to automatically enroll a contact in the program if they complete a program defined as a prerequisite. This option is only available if a prerequisite program is defined.
- **Required Number of Units** – Enter the total number of units enrollees must fulfill for the program to be considered complete.
- **Certification Number Format** – (Required) Indicates the digits for earned certifications using hash mark symbol (**#**) as a numeric placeholder for incrementing the value. Use letters, hyphens, and optional numbers to track the certifications that have been awarded within a program in a sequential numeric order. For example, enter **CSP-###00** so that the certificate awarded for the first completion is indicated with **CSP-00100**.
  Click to view image




Define the program components

A *program component* is a single piece of a certification program that is required of a student to complete a certification program. A component must be fulfilled in order for an enrollee to gain credit for a stage of a certification program.

Components may represent any type of program requirement, such as course completion, event attendance, enrollment or application fees, applications, resumes, or letters of recommendation. Components can have one or more offerings which provide the enrollee with a specific way to complete the requirement, such as details about when and where a component can be completed. Offerings can be linked to an iMIS event or product to facilitate completion of the requirement.

Once defined, program components can be added to a program stage as requirements. Components can be re-used across multiple certification programs. For more information, see Defining requirement stages.

> **Note:** If a component is completed in one program and is included/re-used in another program, the enrollee gets credit for the component in *both* programs. For components that shouldn't be given credit in multiple programs when completed (for example, a component requiring an application fee), it is best to make a copy or create a new component.

Before you begin:

- If the component represents a fee or charge, the product for that fee must already be defined.
- If you want an event (such as a training class) to be associated with the program, the event must already be defined.

Creating a program component

1. Go to **Certification > Set up programs > Program components > Create new Component**.
2. On the Definition tab, specify the component properties. This area specifies the details of the component such as the number of units the student earns for completion, or the grade available.

- **Name** – (Required) Enter the name of the component as it will appear to enrollees in the list of requirements.
- **Code** – (Required) Indicates the code that you can use to look up the component, up to 50 characters in length. Enter only letters and numbers, no symbols.
- **Description** – You can enter a description of the component. If you want to provide a link to users, you can enter HTML in this field.
- **Number of units** – Defines a number value to indicate how many units such as credits, or hours, a student earns upon completing this component. This value may be overridden when the component is added to a program.
- **Allow enrollee to report completion** – Indicates that a program enrollee can record their own completion of the component.

> **Note:** The **Allow enrollee to report completion** option does not apply to staff users. Staff users can always record completion of the component for a program enrollee.

- **Requires grade** – When selected, requires the user to enter a grade when recording a completion.
- **Requires approval** – Indicates that staff must approve completion of this component.

> **Note:** If Allow enrollee to report completion is not selected, then only staff users may record completion of the requirement, so approval will likely not be required.

- **Certification staff only** – Indicates that only staff users will see this component when it is included with a program.
- **Status** - Indicates if the component is currently **Active** or **Inactive**. Only components marked **Active** are available for selection when creating a certification program. You cannot select an **Inactive** component as part of a certification program.
- **Grade** – Defines values for the grading system you want to use for this component.
- **File attachment** – (Required) If the component requires an attachment to fulfill the requirement (i.e. filled out application, proof of completion, etc.), select **Required**. If the user may include an attachment but it is not required for completion, select **Optional**.
- **Inactivate Component** (button) – Select this button if you want to make a component inactive. When you are prompted for confirmation, programs currently using the component are listed.

3. Click **Save**.

Creating component offerings

Offerings can be defined for a specific component, which provide enrollees with one or more specific ways to complete the component. An offering may be an event, a product, or a custom collection of information such as date, time, and HTML links. Offerings are optional for components.

1. Go to **Certification > Set up programs > Program components > Create new Component or open an existing component**.
2. Save the component if it is a new component.

3. Click the **Offerings** tab.
4. Click **Create new Offering**.
5. Enter the information for the offering, including;

- **Type** – Specify that the offering is a **Custom**, **Event**, or **Product** type of offering.
- **Event** - (Required if you specify **Event** as the offering **Type**) Link the offering to a specific event. Click **select** to find and select the event.
- **Product** - (Required if you specify **Product** as the offering **Type**) Link the offering to a specific product. Click **select** to find and select the product.
- **Name** – (Required) Enter the name of the offering as it will appear to enrollees when they are viewing the component.
- **Code** – (Required) Defines the code that you can use to look up the component, up to 50 characters in length. Enter only letters and numbers, no symbols.
- **Description** –You can enter a description of the component offering. If you want to provide a link to users, for example a page or website where they can find more information about the offering, you can enter HTML in this field.
- **Status** – Specify that the offering is **Active** or **Inactive**.
- **Date** – Specify the date that the offering occurs.

  > **Note:** When defining an offering that is an event, the **Date** defaults to the event end date, but a staff user can manually change the date. The **Date** field becomes the **Completion date** field after saving the **Event** offering.

- **Allow date changes** – When selected, this offering allows registrants to change the date when recording completion of the requirement.

  > **Note:** If there is no **Date** defined for the offering, then **Allow date changes** must be selected so that users can enter the date when they complete the offering.

- **Purchase completes requirement** – (Available only if you specify **Product** as the offering **Type**) This indicates that the requirement is satisfied when the user completes the purchase of the product. If not enabled, the user will have to record completion manually after purchasing the product.

> **Note:** For product offerings that represent fees or charges for the certification program, **Purchase completes requirement** should be enabled so that the fee requirement is marked as completed. If the offering may require that the enrollee do something additional after purchase to complete the requirement, for example reading a book they purchased, then this option should be deselected.

- **Provider** – Defines the person or company that manages the offering or gives the training. This list is created based on the records selected in the **Certification > Manage Providers**. For more information see Managing providers.
- **Location** – If a **Provider** is defined, this indicates which provider location applies to the offering. Provider locations are also defined in the **Certification > Manage Providers** area.
- **Link Experiences** – Not used.

Define and structure the program requirements using stages

The requirement structure for a certification program consists of one or more stages, each of which can have one or more requirement sets, notes, and email notifications when the stage is completed. A requirement set is a list of components that are required to complete that set. Within a stage, you can use either **AND** combinations of sets, meaning both are required to pass the stage, or you can use **OR** combinations of sets, meaning either one or the other allows the member to pass through a stage.

A simple program may have a single stage with a single requirement set containing a list of requirements. Enrollees in this type of program would be able to complete the requirements in any order. Multiple stages can be used to create categories of requirements, or to distinguish between requirements that are required and optional (by setting the stage to required or optional). You can also define multiple stages to enforce a required order for completing requirements.

> **Note:** Changes to requirement structure (such as stage order and which requirements are included) will not be reflected for users who have already enrolled in the program. The program structure is set at the time of enrollment.

Before you begin:

Plan the structure of your program and the requirements that will be needed carefully prior to defining them in iMIS.

You must fill out the **Definition** tab for a certification program and click **Save** in order to view the **Requirement** tab.

You must define components in the **Program components** area in order to select them as requirements in a requirement set. See Define the program components for details.

Defining requirement stages

1. From the Staff site, go to **Certification > Set up programs > Certification programs > Requirement tab**.
2. Enable the **Stages must be completed in order** checkbox if you will be using multiple stages and would like participants to complete a particular stage of certification before proceeding on to the next stage.

   **Note:** If this option is selected, then all stages will be set to Required, as enrollees will be required to complete each stage before moving to the next stage.

3. For each stage you want to include, click **Add Stage**.

- (Optional) Enter the name and description of the stage. The name will appear to enrollees as a section header for the stage's requirements.
- Select the **Required** checkbox if the enrollee must complete the stage in order to complete the program.

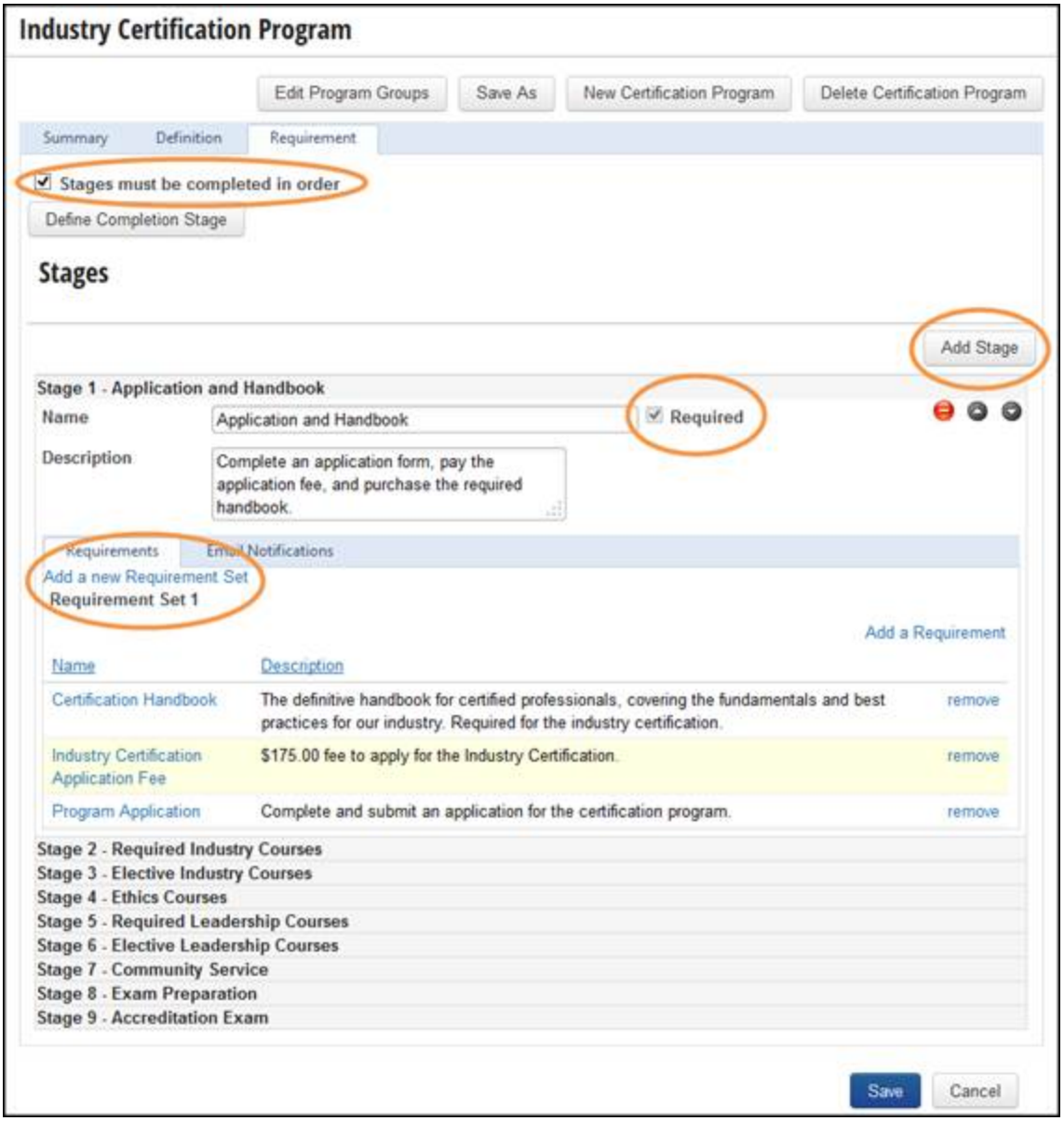
4. Add the component(s) that will be required in the stage. One requirement set is present by default.

- To add a requirement, click Add a Requirement located to the right of the stage.
- Find and select the component you wish to add, and if needed, change the Number of units that will be needed for this component. This will not change units defined in the program component.
- Add each requirement that is needed for the set.

5. Additional requirement sets can be added and combined using **AND** or **OR**. *For example*, you can either require an exam component for entrance into a program or a staff approval

component stating the requirement qualifies them for entrance into a certification program. To add an additional set to a stage, click **Add a new Requirement Set** located below the stages requirements tab. Select **AND** or **OR** from the drop-down list between the sets as appropriate.

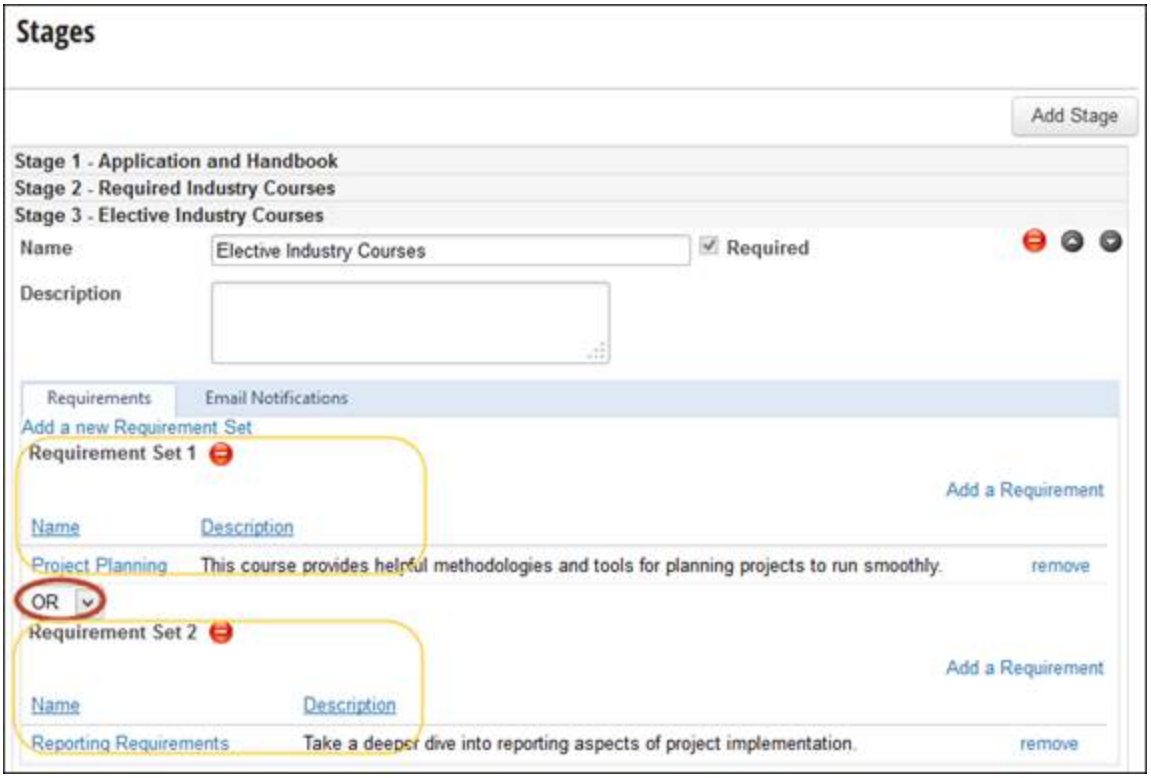
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6. To send an email notification when a stage is completed, go to the Email Notifications tab for the stage. Click Add Email. See Defining certification communication for details on creating an email output process.

- Provide a Process Name. By efault, these email queries are located in the document browser at $/Common/Shared Documents/Processes.
- Select Assignees, select the user(s) to receive email notification and click Continue. By default, the available values are Certification User, Certification Manager, Certification Admin, and Registrant.

7. Click **Define Completion Stage** and specify the completion stage. This completion stage acts as the final stage for a certification program, but is intended for staff use only. It does not contain any requirements. *For example*, you can use the completion stage to send out an email confirmation when the last program stage has been completed.
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8. Click **Save**.

Define unit types, program groups, and offering providers as needed

Adding unit types

A unit type determines how the program and the components will be measured. For example, if the program definition uses hours as a unit type and the number of units required is 84, then the completion of the program will require 84 hours. You will select

the unit type at the certification program level.

- To view existing unit types, click **Find**.
- To define unit types, go to **Certification > Set up programs > Unit types** and select **Add new unit type**.

Defining Program groups

Program groups allow you to categorize or associate multiple programs together. *For example*, you may have multiple certification programs related to industry certification, including maintenance programs, so you can group these programs together by assigning each to a single program group.

1. From the Staff site, go to **Certification > Set up programs > Program groups**.
2. Click **Create new Program Group** or select the program group you would like to edit.
3. On the **(Definition)** tab, set the **Status** to **Active** or **Inactive**. Only groups marked **Active** are available for selection when creating a certification program. You cannot associate a program to an **Inactive** group.
4. **Save**.

Click to view image




Managing providers

You can identify iMIS contacts (individuals or organizations) as training providers so that they may be linked to specific offerings that fulfill requirements. Each provider may have multiple locations associated with the contact.

Before you begin:

You must define an iMIS contact record for each trainer in order to manage their information as a training provider. If a contact record does not yet exist for the provider, go to

**Contacts > Contact management**. Click **Create Account** and add contact information for the new provider.

To add a provider

1. Go to **Certification > Manage Providers**.
2. Click Add a Provider.

> **Note:** You can sort results by location, committee, contact name, or company name.

3. Select a provider.
4. Provide a **location**.
5. Provide a **status**.

> **Note:** Providers with a status of **Inactive** will not appear in the **Manage Providers** list.

To add an additional location for a provider

1. Locate the provider in the **Manage Providers** list.
2. Click the **Location Name** link for that provider.
3. Click **Add a Location** and provide a location **Name**.

Add certification to your public-facing website

In order for website visitors to view and enroll in certification programs, you need to add the Certification program list content item to a content record, which may also contain other content items. This content item allows end users to view what programs are available, enroll for a program, record requirement completions, and track their progress in programs in which they are enrolled.

In order to expose the Certification program on your organizations public website, you must add a content item to a content record. When you open the Content Gallery, you can enter the relative path to the Certification program list web user control (**~/AsiCommon/Controls/CertificationManagement/CertificationProgramHistory.ascx**) in the **Or, enter a path to a web user control field**. This is a relative URL to the web user control from the root (**~**) of the physical path for the IIS application or IIS website that hosts iMIS

content management websites. By default, the root corresponds to **C:\Program Files\ASI\iMIS\Net**.

This auto-generates a Content Web User Control content item that points to the Certification program list web user control. See Configuration options for more information.

### Defining Certification communication

You create email messages that are sent at the start of a stage within a certification component for different reasons and audiences related to certification. For example, you may send notifications to a staff member so that they can review progress through stages. Or, you may need to send an email to all participants in a certification program before a particular offering is available so that they can sign up for the event. You define email merges for certification communication within the Document System in iMIS.

Before you begin:

Certification programs must already be defined.

1. Store the email merge in **$ > Common > Shared Documents > Processes folder** (or one of its sub-folders) of the Document System.
2. When defining a requirement, define the email notification within a stage and select the email merge output process that you want to be sent when the stage is started.
   When that stage starts, iMIS sends the communication.

Tips:

- If your merge produces any email address duplicates, they result from the query specified in the merge.
- The recipients of the communication are created in a query built in the Document System interface, based on the roles for the stage containing the email notification.

### Managing enrollment

Tracking registration for certification courses or certification programs involves knowing who is enrolled and getting counts of the number of registrants.

Students can register themselves from your organization's member site or your staff can register students for programs and components through **Certification** on the Staff site.

You can test for an individual student's completion of the program after students have completed the requirements for a program or a portion of a program.

Before you begin:

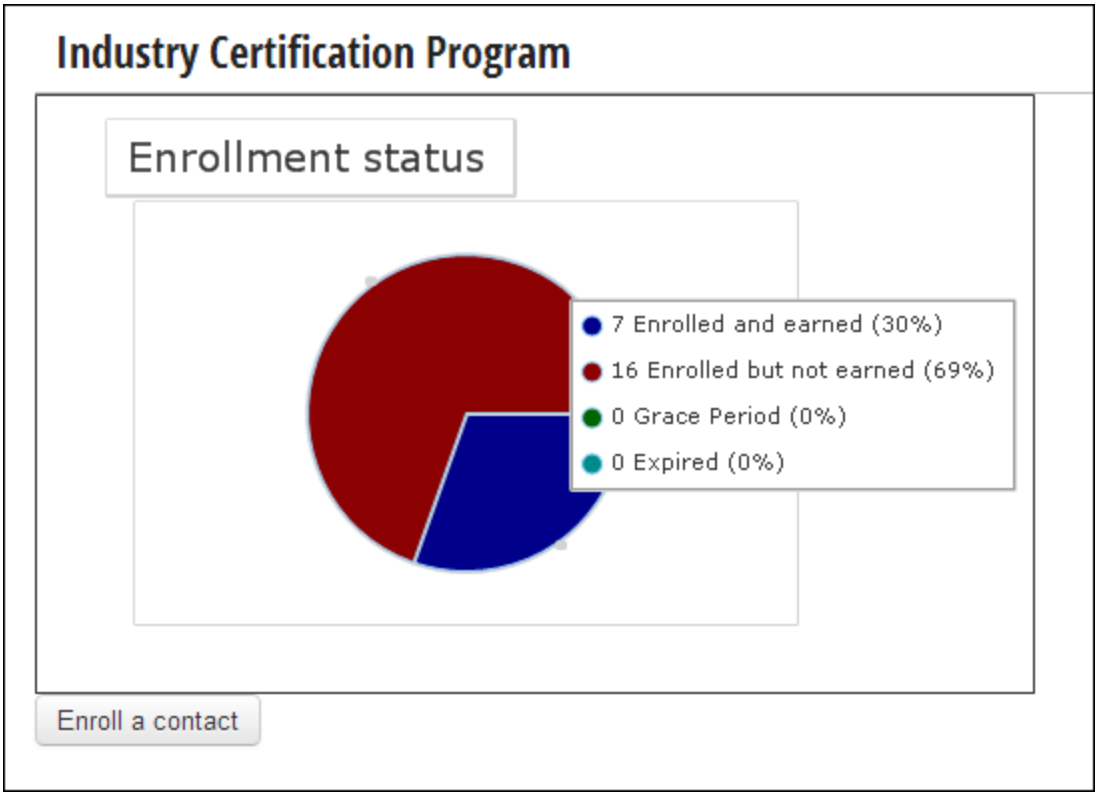
- If a participant is not already a contact record in your iMIS database, add their contact information.
- Ensure that the certification program exists and has a **Status** of **Active**.
- Ensure that components and offerings exist for the certification program.

Reviewing enrollments by program

To review enrollee by program

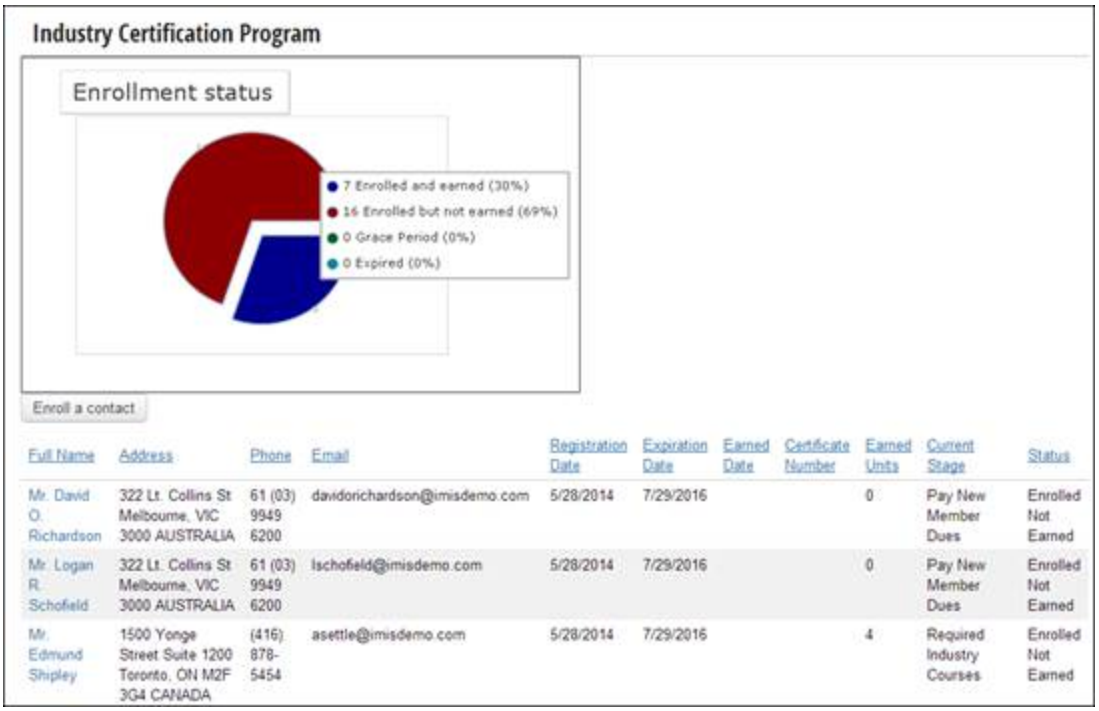
1. Select Certification > Manage enrollment > By program.
2. A pie chart displays with the certification program enrollment status. You can select any item from the chart legend to access that information.

Click to view image

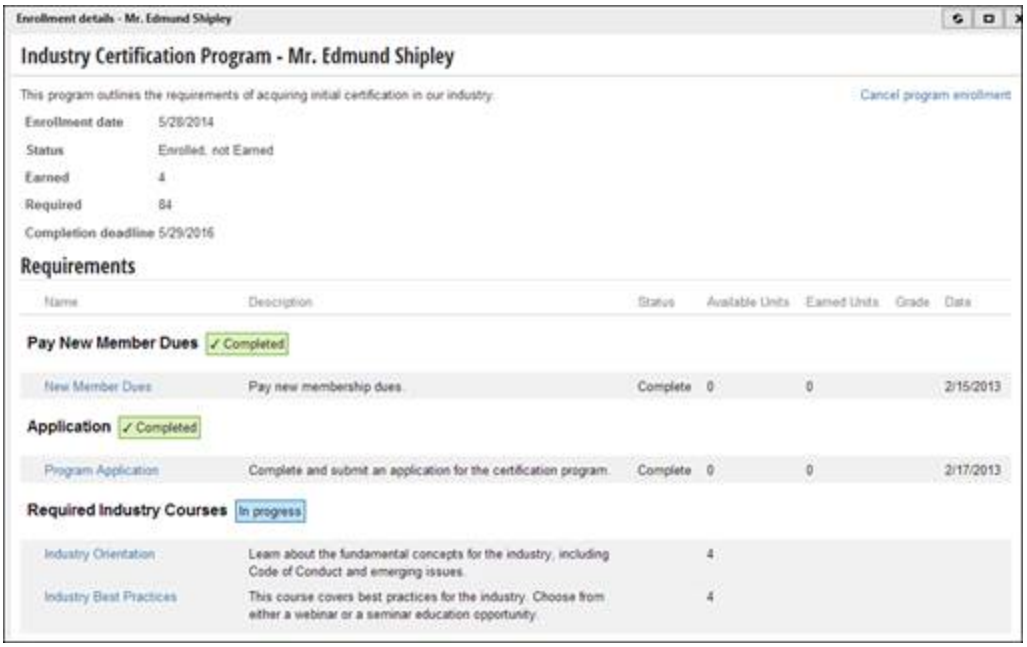



In the following example, the 16 Enrolled by not earned (69%) legend item was selected.

Click to view image



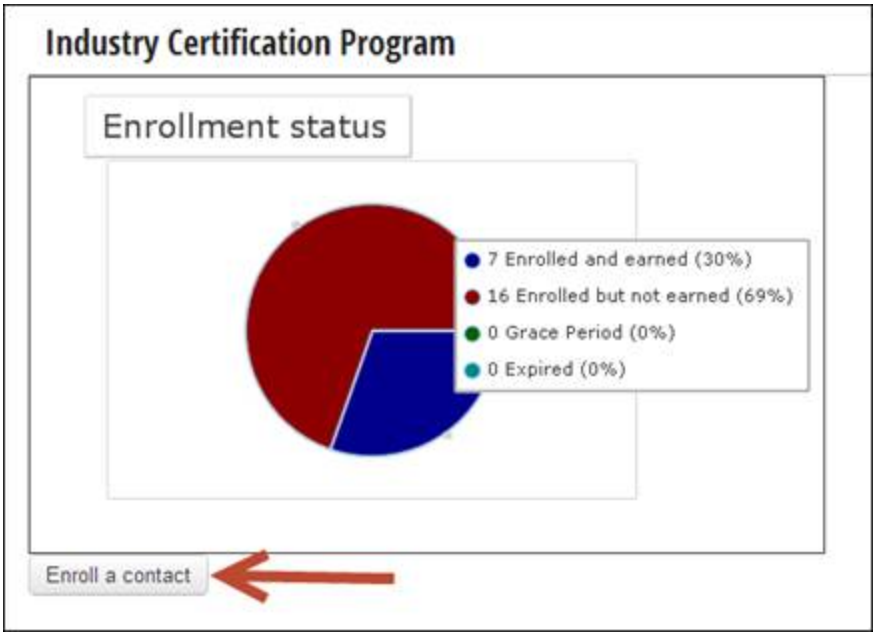

3. Select an enrollee name to review the status of the specific requirements for a contact.
   Click to view image




To enroll a contact in a program

1. Go to **Certification > Manage Enrollment > By program**.
2. Select a program. The certification program statistics chart displays.

Click to view image




3. Under the intended certification program statistics chart, click **Enroll a contact**.
4. **Find** the contact you want to register.

- To register multiple contacts, select the checkbox for each contact you want to register.

5. Click **Register**.

> **Note:** You can onfirm the registration by viewing the enrollment status of the enrollee.

Reviewing enrollee's certification programs

1. Go to Certification > Manage enrollment > By enrollee.
2. Find and select an enrollee. A high level summary of the enrollee's current certification programs and the certification programs available display.

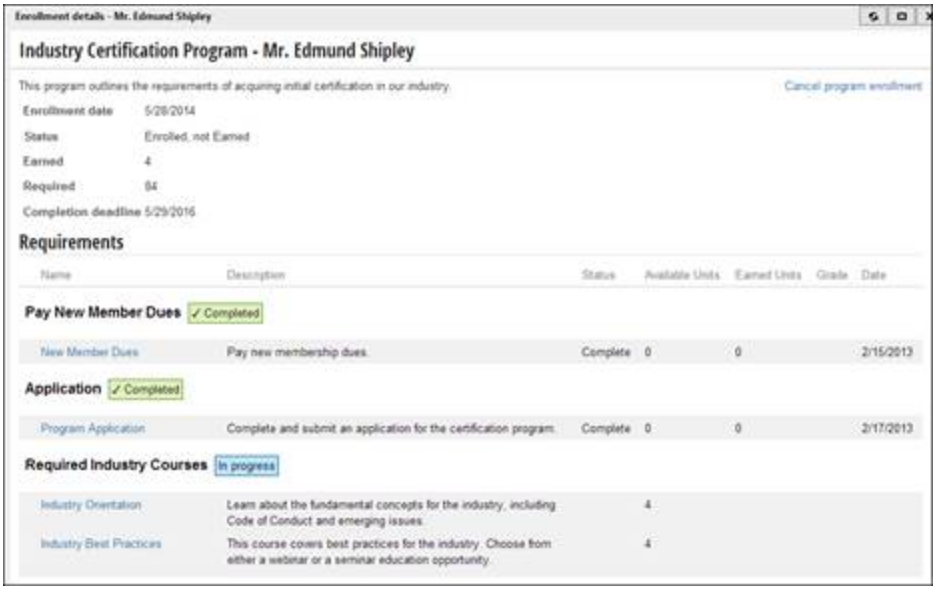
Click to view image




View all the programs the contact is both enrolled in and eligible to enroll in.

- Click on the Name
- Enroll to register the contact for the selected certification program.
- Print Transcript to view the progress of all programs a contact has enrolled in a standard, exportable format.
- View Progress to track the enrollee's progress through the certification program. To review requirement details, select the requirement.
- If the requirement was completed, the date and supplemental information is provided.
- If the requirement has no status, you can register the enrollee.

Click to view image




Removing inactive enrollments

You purge inactive registrations when the member has decided not to continue the program or when the certification program is no longer offered or canceled.

A purge does not delete the contact record; it deletes the related recorded registration information.

Before you begin:

You must log on as a user with the role of Certification Manager to purge inactive registrations.

1. Go to **Certification > Manage enrollment > Inactive enrollments**.
2. Search for a specific enrollee or click **Find** to display all inactive registrations.
3. Select the checkbox for each enrollment to want to remove.

> **Note:** This list displays records of contacts participants that are marked as inactive registrants in the database. These can be purged from a certification program enrollment, but this enrollment purge does not remove the contact record from the database.

4. Click **Purge Selected** to remove the selected enrollment.

Completing certification programs

To complete requirements for a contact

1. On the staff site, navigate **to Certification > Manage enrollment > By enrollee**.
2. Find and open the contact for which you want to record the completion of a requirement.
3. Click **View Progress** for the certification program for which you want to complete a requirement.

> **Note:** When viewing requirements, only requirements which can be completed are links. If the requirements must be completed in order, then some may not be available until the previous requirements are completed.

4. Click the requirement link. The requirement details display along with any associated offerings, such as classes.
5. If you want to register the contact for an event that meets the requirement, click **Register Now** for the event offering.

- Register for the event.
- Check out from the cart.

6. To record completion for a requirement, select **Record Completion** for the offering completed (or for the overall requirement if it has no associated offerings).
   Enter the necessary information.
   - Specify a **Date**.
   - (Optional) Enter any necessary **Notes**.
   - If the requirement requires a **Grade**, specify the **Grade**.
   - If applicable, click **Attach file** to attach a file. In the **File Upload** window, **select** the file and **Upload**.
7. **Save** the completion information.
8. 

   **Note:** If the completion requires approval by a staff user, **Awaiting Approval** displays as the **Status**. If the requirements must be completed in order, the program enrollee cannot progress to the next stage until the previous requirement has been approved. See Pending approvals for more information.

To review completed requirements for a contact

1. On the staff site, navigate to **Certification > Manage enrollment > By enrollee**.
2. Find and open the contact for which you want to review completed requirements.
3. Click **View Progress** for the certification program for which you want to review completed requirements. A list of program requirements displays where you can view the **Status** of the requirements:
   - **No Status** – The program enrollee has not completed the requirement.
   - **Awaiting Grade** – The requirement requires that a grade be entered before it can be completed.
   - **Awaiting Approval** – The requirement requires that a staff user approve its completion. See Pending approvals for more information.
   - **Complete** – The requirement has been completed and requires no further action.
4. 

   **Note:** When viewing requirements, only requirements which can be completed at this time or have been previously completed are links. If the requirements must be completed in order, then some may not be available until the previous requirements are completed.

5. Click the link of a completed requirement to review the completion details. Completion details are read-only once a requirement has a **Status** of **Complete**.
6. If you want to access a file attached to the requirement, click the file name.

Editing certification programs

Staff users can edit and make any changes to a certification program through the Staff site by navigating to **Certification > Define programs > Certification programs**. Any edits made to the certification program will not affect current enrollees, with the exception of altering the program to a Maintenance program.

If the option **Maintenance program** is enabled when editing the certification program, additional enrollment is available when current enrollees complete the program. However, if the option **Maintenance program** has been removed when editing the certification program, additional enrollment will not be available to current enrollees who have completed the program.

All certification program enrollees must cancel and re-enroll into the program after edits have been applied.

## Approving completions

As a best practice, a staff user should review the pending approval lists on a regular basis.

Requirement completions

Requirements that require approval will display in this area after an enrollee records the completion of the requirement. You can choose to filter pending approvals to those requiring grades, or show all requirements approved in the last 30 days. A staff user can select approve if the completion of the requirement has been met. A completion can also be rejected, with the ability to enter notes to the enrollee; they can then re-submit the completion after making the necessary adjustments.

> **Note:** If a requirement does not require approval, the requirement will be set as completed when the enrollee has completed the requirement.

Program completions

When all of the requirements of a program have been completed and approved, a staff user can approve the completion of the program.

> **Note:** If the program does not require approval, the program will be set as completed when the enrollee has fulfilled the number of units required and completed all of the required stages.

1. Go to **Certification > Pending approvals > Requirements completions or Program completions**.
2. Review the completions, and open the completion to view enrollment details.
3. To approve a completion:

- Select **approve** for each completion you want to approve.
- Select **Approve All** to approve all completions.

4. To reject a completion:

- Select **reject** for the completion.
- Choose **Notify Contact** to provide notes or instructions to the enrollee. These will appear as the status for the requirement. Otherwise, choose **Remove Experience**, which will set the status to **Rejected**.

## Canceling certification programs

When you no longer want to offer members a certification program, you can cancel the program. Canceling the program will set the status to Inactive, meaning that new users will not see the program in the program list and so cannot enroll. Any existing enrollees will still be able to see and complete the program, unless you delete it altogether.

To cancel new enrollment for a certification program

1. Select **Certification> Set up programs > Certification programs**.
2. Select the certification program that you want to cancel.
3. Click the **Definition** tab.
4. Click **Cancel Certification Program**.

To delete a certification program

1. Select **Certification> Set up programs > Certification programs**.
2. Select the certification program that you want to delete.

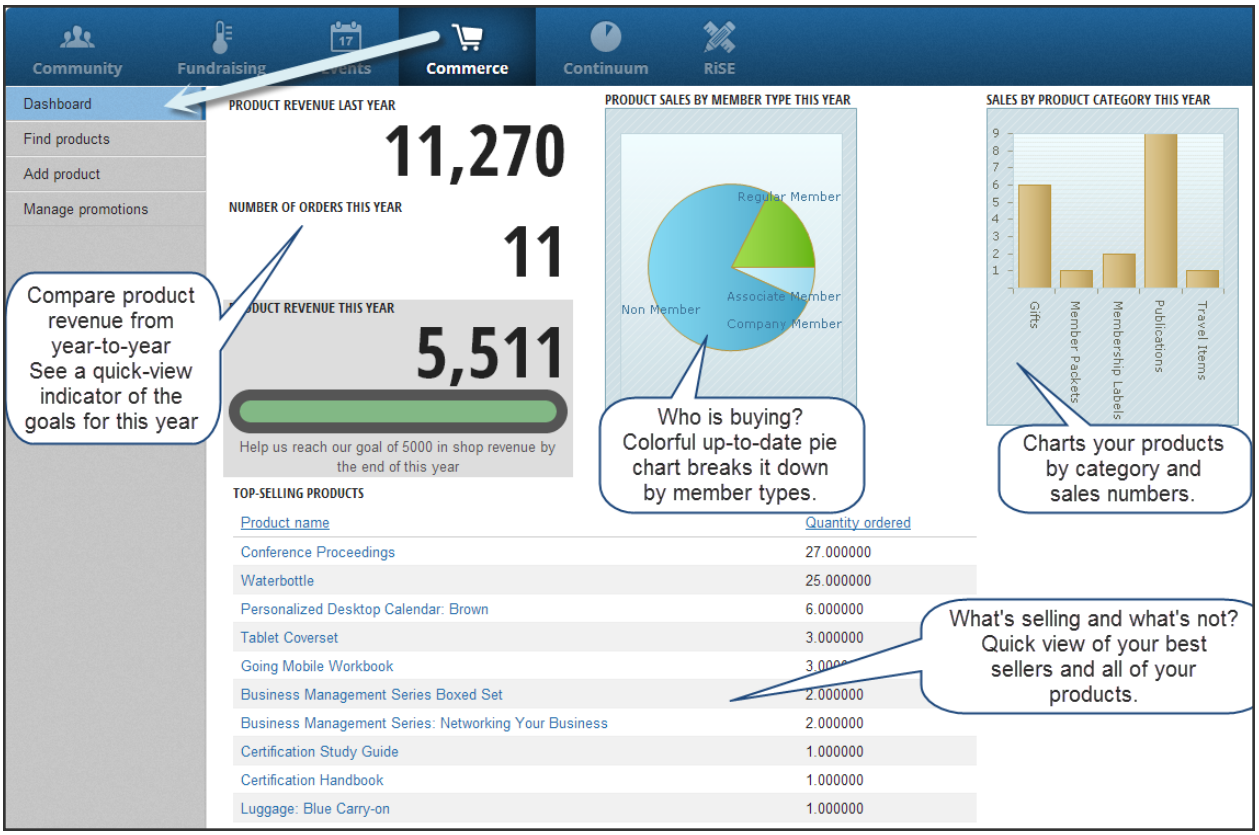
3. Click the **Definition** tab.
4. Click **Delete Certification Program**.

> **Note:** Programs can only be deleted if they do not have any active enrollments. To delete a program, ensure that all enrollments for the program have been purged using the **Purge selected** button (**Certification > Manage enrollment > Inactive enrollments**)

## Commerce

From your Staff site, Commerce offers a quick-view, up-to-date look at key product revenue for your organization.

- Product revenue last year
- Product sales by member type this year
- Sales by product category this year
- Number of orders this year
- Product revenue this year
- Top-selling products
- All products




*See also*

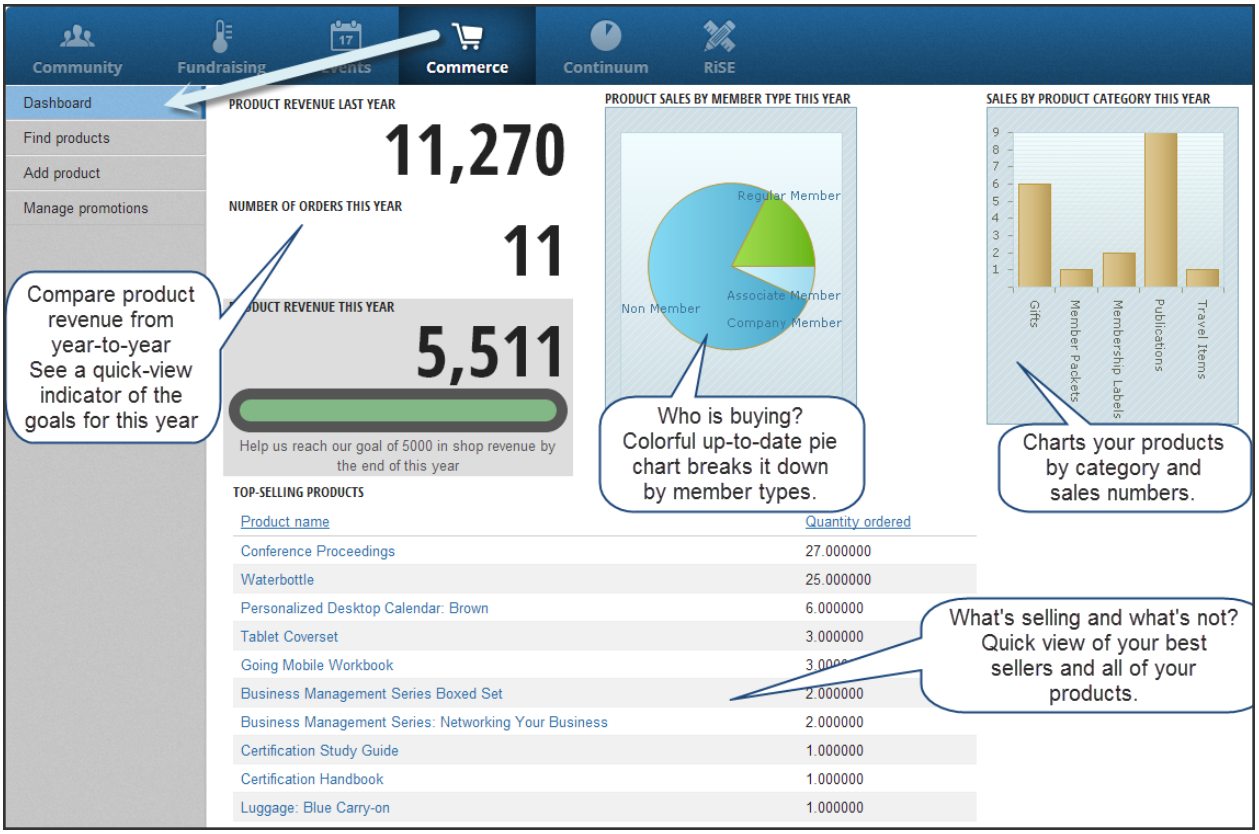
- Setting up an Order Confirmation template
- Adding and Editing Products
- Creating promotion codes
- Making a purchase
- Overriding a price
- Billing for membership dues
- Paying open invoices
- Managing automatic batches from the Staff site

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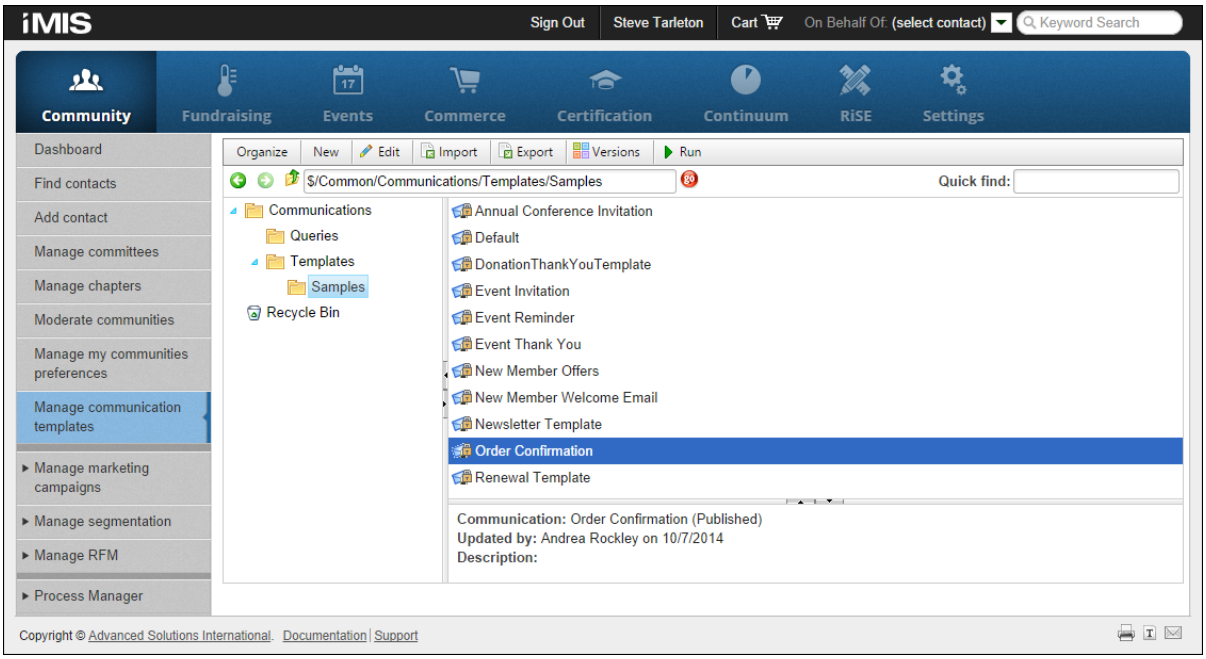
## Setting up an Order Confirmation template

Set up the new Order confirmation template so that a tailored message is automatically delivered to the purchaser and other desired recipients.

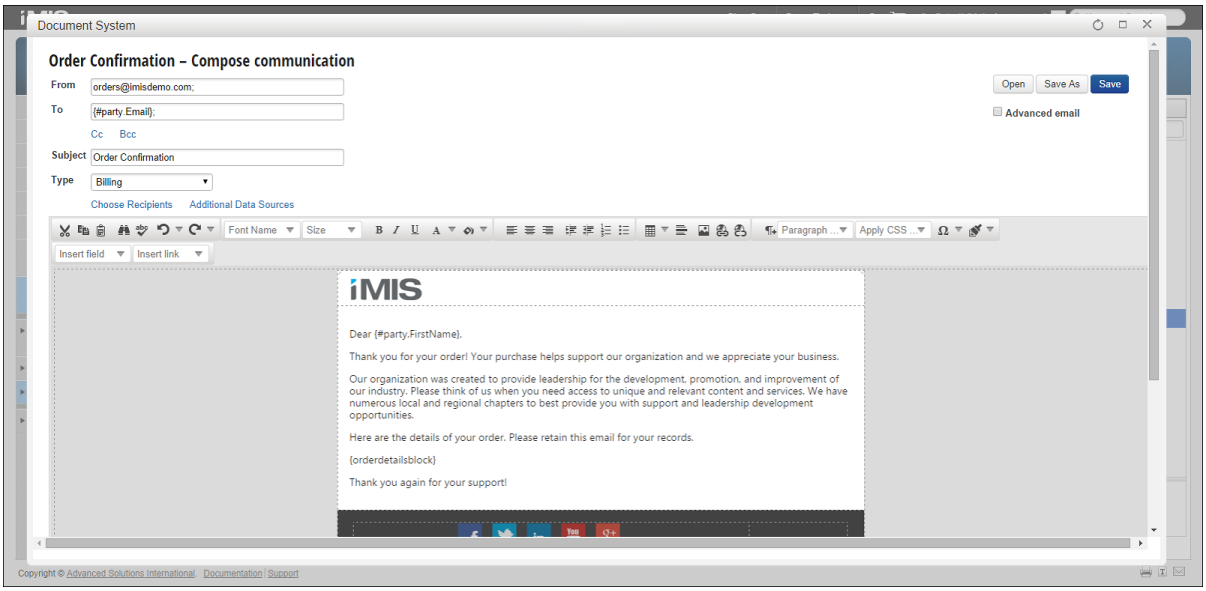
### Tailoring the Order Confirmation template

To create a tailored Order confirmation template, you can choose either to start with a copy of the sample template or create a new template.

1. Navigate to **Community > Manage communication templates** and select **Templates > Samples** in the Document Browser.
2. Select the Order Confirmation template.




3. Edit the template as needed, for example, insure that the **From** address is the correct email address.




4. Click **Save As** and enter a **Name** for the template.

> **Note:** Be sure to save your template to the **Templates** folder.

When copying the sample Order Confirmation template or creating a new template the following information must be configured in the template:

- The **From** address
- The **To** address defined as {#party.Email}
- Communication type = **Billing**
- The {orderdetailsblock} placed within the body. This placeholder will be replaced with a grid containing order details such as the order number, shipping address, item lines, and transaction totals.

> **Note:** If you want to a copy of the confirmation to send to staff members, the email

address must be entered in the **Bcc** field.

**Order Number:** 10508
**Order Date:** Oct 8, 2014 2:52 PM
**Bill To:** Mr. Brian Murphy
**Order Total:** 153.00
**Payment Method:** You will be billed for the balance due - Purchase Order Number 111.
**Ship To:** Mr. Brian Murphy
8910 Sylvan Rdg
Eden Prairie, MN 55347-3336
UNITED STATES
**Shipping Method:** United Parcel Service

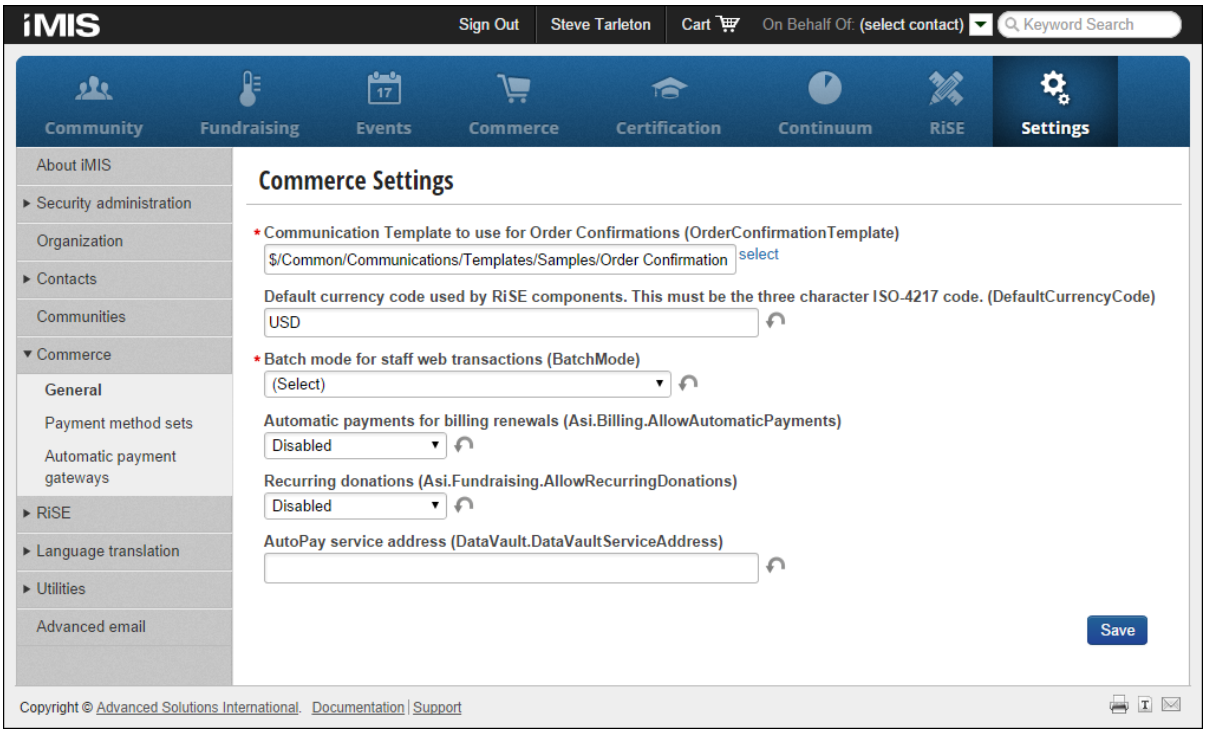
| Item | Price | Qty | Total |
|---|---|---|---|
| Conference Proceedings | 150.00 | 1 | 150.00 |
| | | **Item Total** | 150.00 |
| | | **Shipping** | 1.00 |
| | | **Handling** | 2.00 |
| | | **Item Grand Total** | 153.00 |
| | | **Transaction Grand Total** | 153.00 |

**Note:** When previewing the Order Confirmation template on the Staff site, the {orderdetailsblock} will display an error. This error will not appear when an order confirmation sends.

**Note:** When resending an order confirmation, the **CC** and **BCC** addresses are ignored

### Managing the Order confirmation template

1. On the Staff site, select **Settings > Commerce > General**.
2. Specify the path for the communication template used for Order Confirmations, for example, **$/Common/Communications/Templates/OrderConfirmation**.




## Modifying the {orderdetailsblock} of the Order Confirmation template

To modify the result of the {orderdetailsblock}, navigate to **~\AsiPlatform\Asi.Scheduler_website\Assets** and locate the **OrderConfirmationEmailTemplate.htm** in the file system. If you alter this file, be sure to back up this file before upgrading in order to avoid the file being overwritten.

> **Note:** Note: This confirmation template is not supported in Public view.

You can use the following properties in your template:

### General Order Information

- [OrderNumber]
- [OrderDate]
- [BillTo]
- [TransTotal]
- [PurchaseOrder]
- [PaymentMethod]
- [NameOnCard]

- [ShipTo]
- [ShipMethod]

**Line Item Data**

- [Quantity]
- [Item]
- [Price]
- [Total]
- [ItemTotal]
- [Shipping]
- [Handling]
- [TaxAmountsLabel]
- [TaxAmounts]
- [TaxTotal]
- [GrandTotal]
- [InvTotal]
- [TransTotal]

**Troubleshooting confirmation messages**

iMIS sends order confirmations to the email address that is specified in the Personal Details section of the contact's account page (Name.Email).

If a contact does not receive a confirmation, check to make sure there is an email address listed.

## Adding and Editing Products

The Item Creator content item lets you build new product offerings and edit existing ones. From the content item, you can define product details including the Item Class, Item Code, Name, Pricing information, tax configuration, whether or not the product has inventory, and the GL account. You can edit products in the content item that were created within the Advanced Accounting Console, and vice-versa.

**Note:** The **Not on Web** option available within the Advanced Accounting Console does not apply to RiSE (Content Item) based sites, including Member and Staff.

Products defined on RiSE sites are automatically set to Sell on Web and are searchable on your RiSE websites.

**Note:** You can create a collection of items, known as a kit, from the Advanced Accounting Console. This allows you to create complex offerings with quantity requirements.

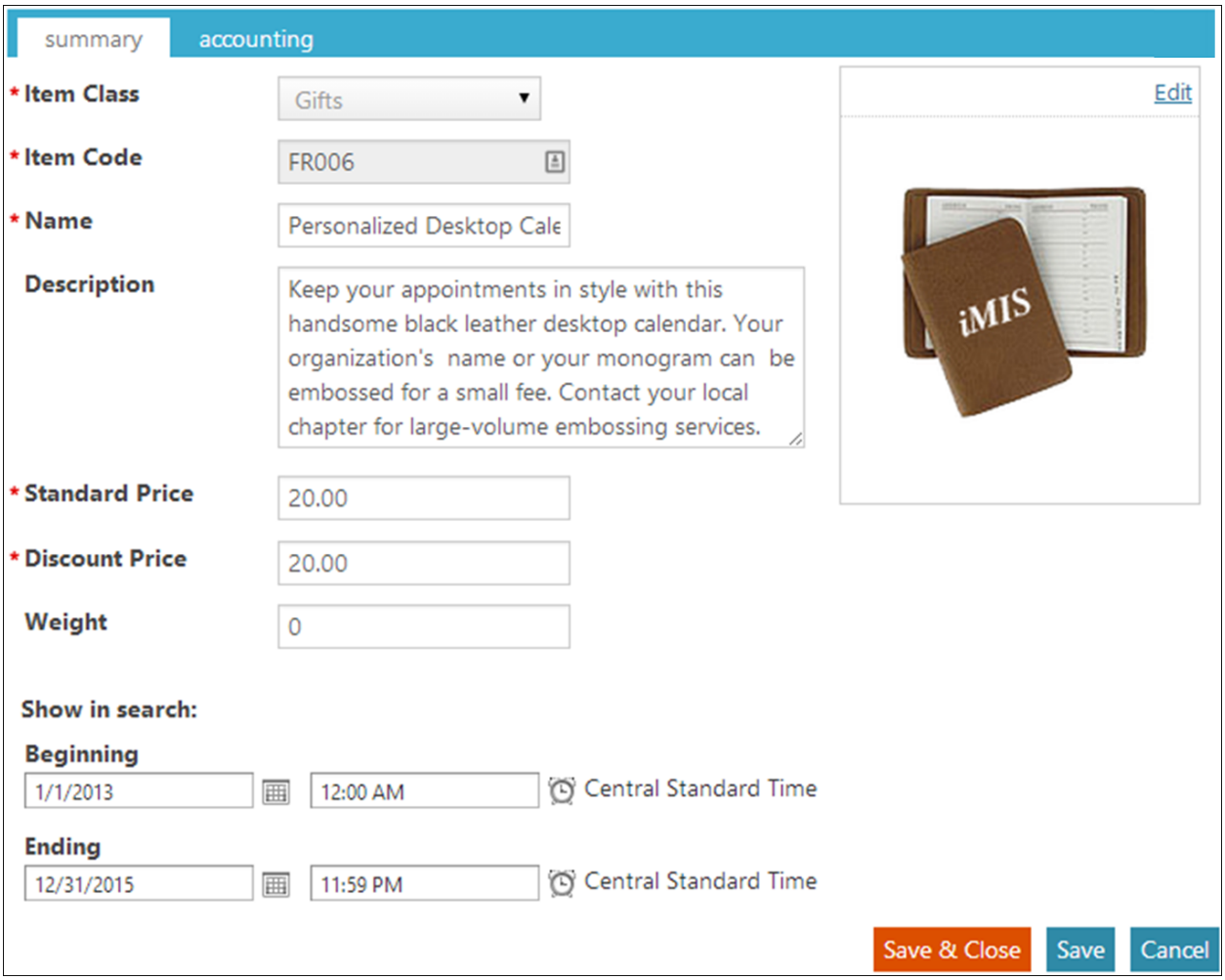
### Defining Products

The Item Creator content item has two modes: **Add** or **Edit**

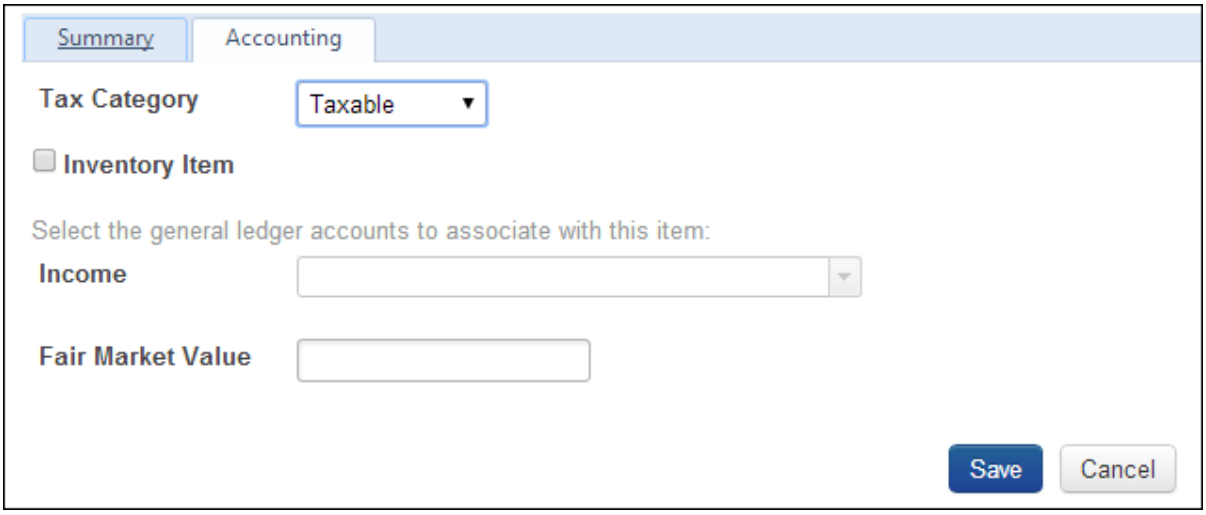
- **Add** mode: Enter the Summary and Accounting information for the product, then **Save** to create the new product.
- **Edit** mode: When you pass a product's Item Code to the content item using the iProductCode URL parameter, the content item displays in edit mode.

### Adding and editing products

1. Go to **Commerce > Find products**
2. Click on an item to edit or click **Add** to define a new item.
   Click to view image




Click to view image



> **Note:** If an item is already in your cart, you might need to remove it from the cart before editing it.

3. Select the **Item Class**.

> **Note:** The Item Class drop-down displays the product categories defined in the Advanced Accounting Console.

4. Enter the **Item Code**.
5. Enter the **Name** and **Description** of the item.
6. Enter the **Standard Price** (Non-Member) and **Discounted Price** (Member).
7. (optional) Enter the Weight to help calculate shipping costs
8. (optional) Enter dates and times for **Show in Search** to provide a date range in which your product will show up in searches.

> **Note:** Staff users can choose to show inactive products in their search results.

9. (optional) Click **Edit** and select the picture to display for this item.
10. Select the **Accounting** tab to review the default settings and make any required changes for the item.

- The **Tax Category** specifies the taxation rules to be applied. The options available depend on the taxation method set up for your default organization in iMIS Desktop or the Advanced Accounting Console.
- If your organization uses the default taxation method, select **Taxable** or **Non-Taxable**.
- If your organization uses the Canadian taxation method with GST as the taxation authority, select **GST/HST** or **PST**. If the product is non-taxable, do not select an option. If the product is taxable, select one or both options.
- If your organization uses the Canadian taxation method with GSTINC as the taxation authority (generally countries in the Asia-Pacific region), select **Taxable** or **Non-Taxable**.
- If your organization uses the VAT taxation method, select **Taxable** or **Non-Taxable**. If the product is **Taxable**, enter the **VAT Tax Code** you want to apply. See Taxation for more information on setting up Canadian and European (VAT) taxation methods in iMIS.

- The **Inventory Item** checkbox is read-only and indicates whether an item is a stock item (allows tracking inventory). To set this property, go to the Advanced Accounting Console and set the item's **Stock Item** property in **Commerce > Inventory > Products**.
- You can override the default **General Ledger** accounts from the **Income** dropdown list. Enter the desired amount name or code, and then select the account from a filtered list.
- Provide a **Fair market value**. This is the price that the donor would need to pay if they were not receiving the product in exchange for their donation. For premiums, the tax-deductible amount is often calculated as the amount of your donation minus the **Fair market value** of any premium you receive for that donation. Currently, this value is not included in any of the receipting logic.

11. Click **Save**. The item detail page displays as it will appear to users. In addition, the item will display in the list of product items. The user can click the item name to view details.

> **Note:** Product Kits and products with a negative standard price or discount can only be edited through the Advanced Accounting Console. An option to edit these products will not be visible on the Web.

## Creating promotion codes

You can create promotions (discount codes) that apply to the entire order, within any date restrictions that you define. Currently, a discount that applies to the entire order can only be a percentage discount. This discount applies to every order line in the cart, without type-specific exclusions.

You can also create promotions (discount codes) that apply only to specific items or item categories, and these discounts can be either percentages or fixed amounts.

### Creating a promotion

To create a promotion, you need access to the Promotion Creator content item, which enables you to create and manage promotion codes that give a percentage discount.

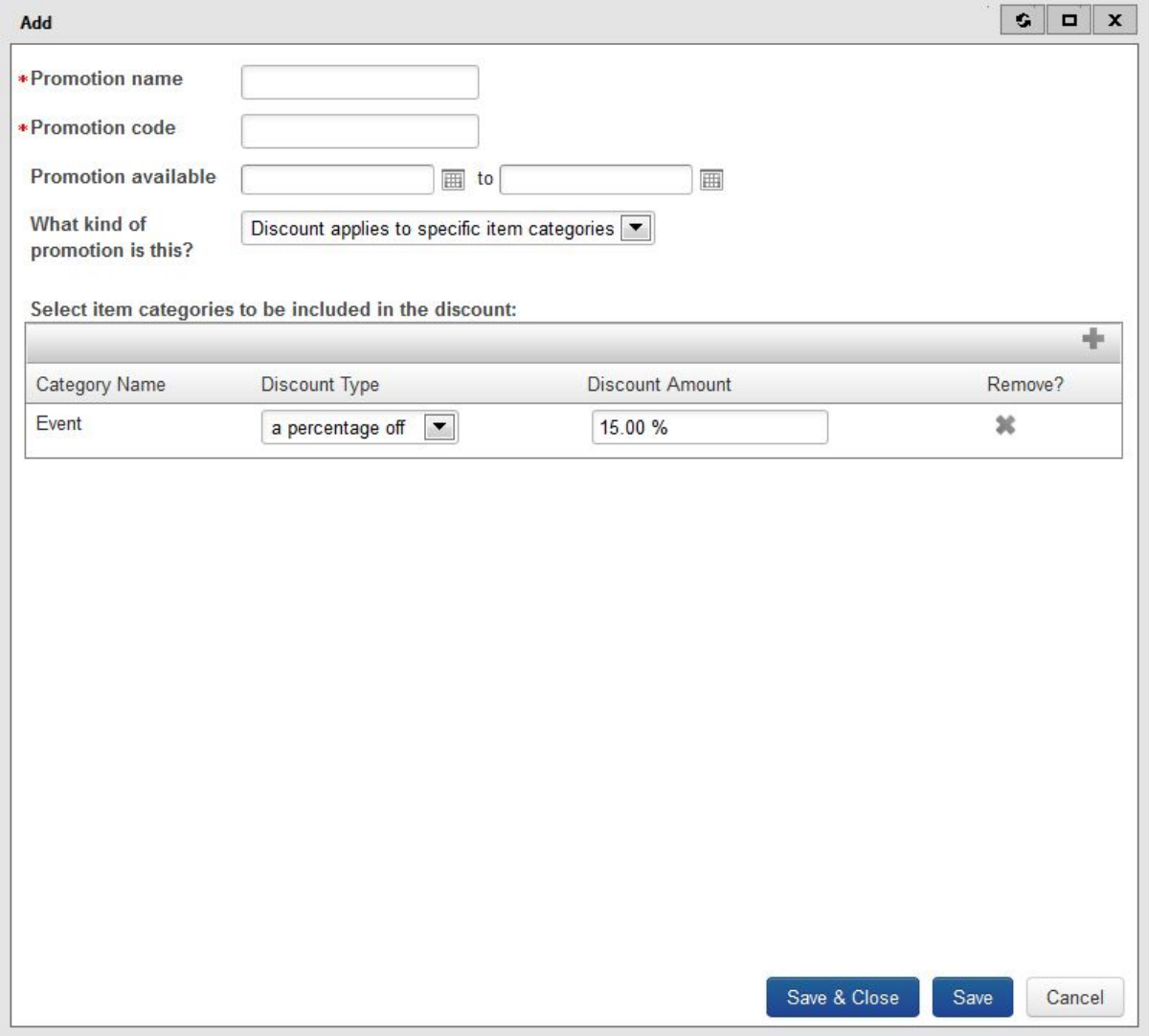
1. Go to **Commerce > Manage promotions**.
2. At right, click the **Add** (plus sign) icon to create a new promotion.
3. Create a **Promotional code name** and **Promotion code** that will help you organize your discounts.

> **Note:** Use a naming convention that takes advantage of alphabetical column sorting to group discounts together, such as by year or area prefix.

4. Enter availability dates unless you want your code to never expire.
5. For **What kind of promotion is this?**, decide if the code will apply to the entire cart or to specific items or kinds of items that might be in the cart. Discounts can only apply to sales products, event registration options, and event program items.

- **Discount applies to entire order**: Currently, this percentage discounting applies to every order line in the cart to which discounts apply.
- **Discount applies to specific item(s)**: To the right of **Select item(s) to be included in the discount**, click the **Add** (plus sign) icon to select an item and define a new item discount, either percentage or fixed amount.
- For event discounts, choose the **Event Function** category and select each individual registration option and program item that the discount should apply to.
- **Discount applies to specific item categories**: To the right of **Select item categories to be included in the discount**, click the **Add** (plus sign) icon to select an existing category and define a new category discount, either percentage or fixed amount.
- To apply the discount to event registration fees, choose the **Event** category. Your events must have registration options defined in order to apply this discount.
- To apply the discount to event program items, choose the **Event Function** category.
- To apply the discount to an entire registration including registration fees and program items, choose both the **Event** and the **Event Function** categories.

Click to view image




## Applying promotions

The Promotion Manager content item lets you make use of the discounts that you define using the Promotion Creator. It lets shoppers enter a promotion code to apply to their entire order. When the code is valid, the order lines update to the new reduced amounts. The content item hides itself if no promotions have been defined or if the cart is empty.

Click to view image




## Making a purchase

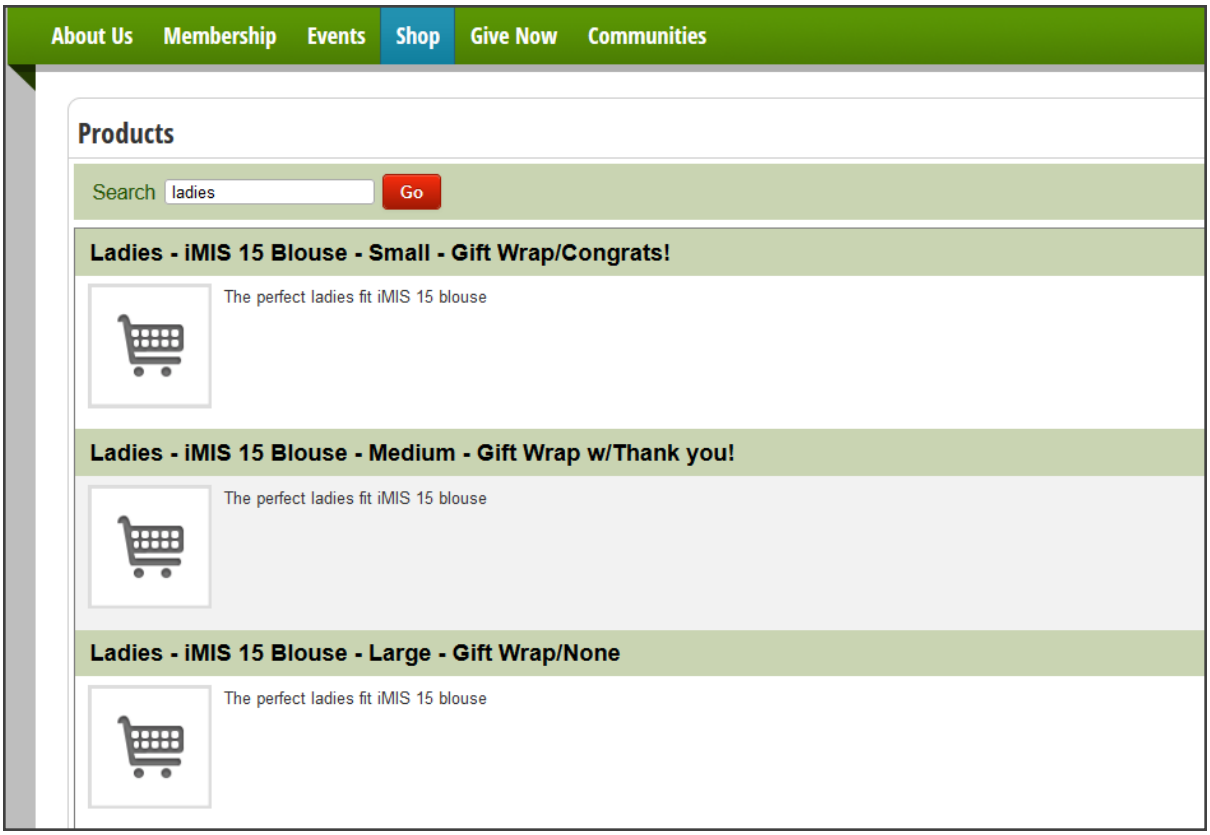
For yourself or on behalf of another contact, you can browse and search for specific Products and view your Cart, or the Cart of another contact.

> **Note:** Note: If you have opened a contact record, you can click the name of the product and proceed through the purchasing process to checkout.

### Searching for a product

From **Shop**, you can search for a product in the iMIS system.

Click to view image




### Tips:

- Capitalization does not affect search results.
- Products are searched by name, the first 300 characters of the description, and attributes, such as color or size.

### No search results?

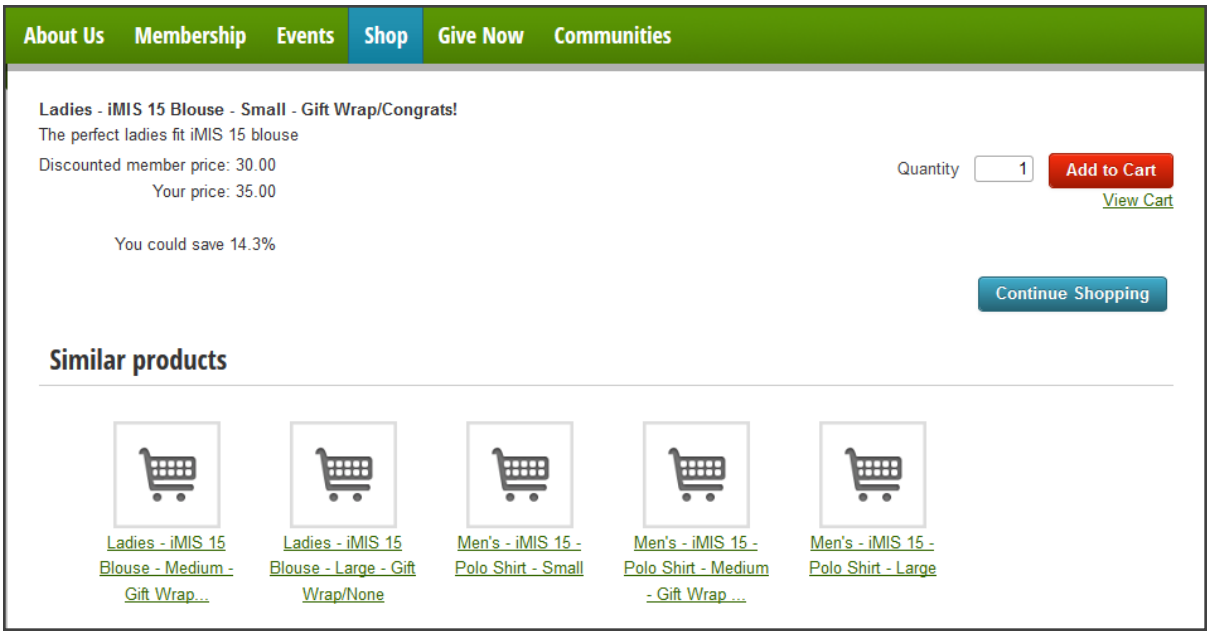
- Search terms must be three or more characters long.
- In some cases, searched terms may exist outside of your 300-character product description. To improve search results, simply enter additional terms.

## Using the Cart

From the **Store** tab, you can view, add, and remove products.

1. **Search** or Browse for the product.
2. Select the product in the product listing.
3. From the **Product Details** page, **Add To Cart**.

Click to view image




4. When you are finished selecting products, Checkout. iMIS will guide you through the rest of the purchasing process.
5. From the **Cart** page, you can adjust the quantity of or remove products from the cart.

- From the Ship To section, you can select a Shipping To and Shipping Method. You may choose another address if desired.

> **Note:** The Shipping Details section does not display if you are purchasing an event registration or billing product or submitting a donation. An item is only considered shippable if its Item Class, which is selected on the Summary tab when adding or editing a product on the Staff site, begins with “SALES-”.

- From the Payment Details section, enter your payment details.

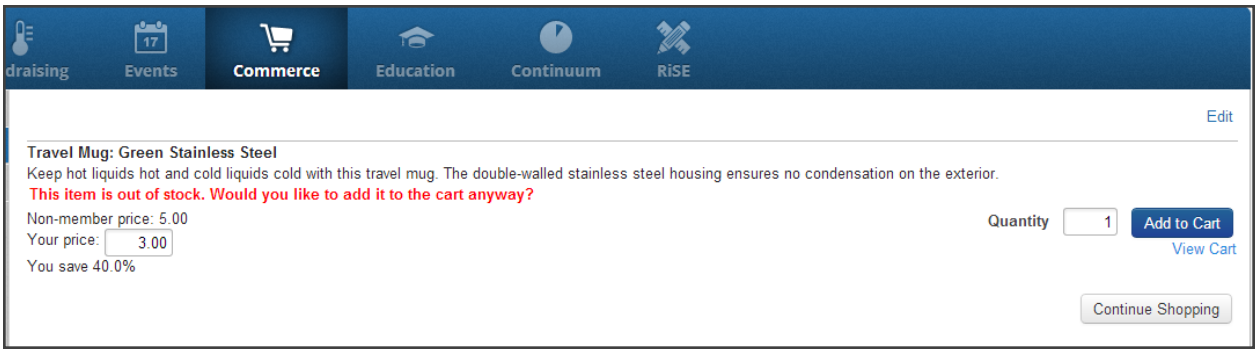
> **Note:** You may select a billing address that is different form your shipping address.

6. **Submit Order**.

> **Note:** Note: If an item is out of stock, as a staff user logged on as yourself or On Behalf Of someone else, you can disregard the “This item is out of stock” error and continue to enter your desired Quantity. At checkout, you will see the message

"Your cart contains errors. Proceed Anyway?" Simply Proceed & Submit, or Continue Shopping.

Click to view image




## Overriding a price

If you are a staff user, you can manually override the price on simple items to give your organization's members (and non-members) one-time discounts on simple items in your online store, up to and including a 0.00 price. These items can be added to the cart with the price override included. You can override prices when working **On Behalf Of** a user, or not.

**Note:** Note: The ability to override the price of an item is disabled if the system-wide taxation method is set to GSTINC.

1. Go to **Commerce > Find products**.
2. Navigate to and click on the product you wish to override.
3. On the resulting **Product Display**, manually edit the price for the item in the editable text field next to **Your Price**. The **Revert to original price** link will appear--should you change your mind and want to return the item to the original price, click on this link.
4. When you are ready to check out with the item's new price, click **Add to Cart**.
5. Once in the cart, you will see the new price listed under **Items**. You can proceed through checkout as normal.

**Note:** Note: After a price is overridden, no further discounts or promotions may be applied to it.

Click to view image




## Billing for membership fees

You can use your site to collect membership dues from both members and prospects:

- For *existing* members who need to renew, just bill as usual:
- Run the billing cycle to generate the invoices. See Running mass dues billing.
- (*accrual dues*) Post the resulting batch.
- When viewing their profile on your site, members are prompted to renew (as long as the invoice remains unpaid).
- If they opt to renew, the billing item moves to their cart, for payment.

> **Note:** If a user has purchased a membership (joined) once, the user cannot purchase the same membership again. Even if there is a lapse in a membership, the user can only renew a membership (a staff user must intervene on behalf of the user to do this).

- When guests check out, subscription records synchronized to the same membership term dates are created and the customer type changes to the customer type selected in the billing cycle. If customers choose to make a payment instead of using Bill Me, the paid thru status of the subscriptions will not be updated until the batch of payment transactions posts.

> **Note: Join Now** functionality is currently implemented for cash-based accounting only. Using **Join Now** with an accrual dues system will still work, but iMIS will treat the dues as cash. Future renewal billings will be treated as accrual dues.

### To set up a "Join Now" billing cycle

In Advanced Accounting Console, check your dues item pricing and create a special billing cycle to use when members join through your website:

1. Verify the pricing for your dues items.

   **Note:** Product pricing follows this order: Is there a price on the **Special Pricing** window? If not, is there a price on the **Customer Types** window (or is the **Comp** option enabled)? If not, use the price on the **Products** window.

   - On the Customer setup window for Customer Types, verify the **Dues Billing** options for your *primary* membership type (which you will use for Join Now).

     **Note:** You cannot use a wildcard on the dues product list on the **Customer Types** window. If you use a wildcard, an error message is displayed, and you will not be allowed to continue to check out.

   - On the Billing setup window for Products, verify that you have one product code for each dues or subscription involved in your membership options.
   - On the Billing setup window for Products, Special Pricing, define any special pricing for your membership fees, if needed. See Special pricing examples.
   - On the Configure billing options window, select the appropriate prorating option if you bill on an annual or fixed-term basis and would like to prorate the membership fee based on the date the member joins or to apply special user-defined prorating rules. For more information on user-defined prorating rules, see Defining prorating rules.
2. In the Set up billing cycles window, create a new billing cycle.

   **Note:** You may want to begin the **Cycle Name** with "Join Now" (with a space, not an underscore) to distinguish this billing cycle from others. Multiple **Join Now** billing cycles can be created by including an additional description in the cycle name, such as **Join Now Student**. The billing cycle name on the **Set up billing cycles** window should not have underscores in it, only spaces.

3. To use the billing cycle for renewals, select **Use to display itemized web renewals**. For more information, see Setting up billing cycles.

4. For **Member Types**, select only one member type. The contact will be converted to this Member Type when they join using this billing cycle.
- For **Products**, select products that are not included on the Customer Types table for this member type.

> **Note:** New members are able to select a chapter during the **Join Now** process. However, you must set this up by adding a CHAPT product for every chapter option. When a membership is due for renewal, the selected chapter is included in the invoice.

- For **Other Billing Instructions**, be sure to enable the option for **Add Member Type** Items to bill for products on the Customer Type table.
5. On the **Customer** setup window for Activity Types, edit your DUES **Description** to be how you want it to appear to the public (such as “Membership Fees”).

**To set up a "Join Now" page**

On your members' site, create a Join Now page:

1. Create a **Join Now** content record and add it to your site navigation.
2. On the content record, add a General Product Display content item. You will need a separate instance of this content item for every Join Now product you want to use on your site.
3. Configure the content item so that **Default product to display** is the exact name of the billing cycle.
4. Publish the content record, and view it for any changes you may want to make to options and default selections.

> **Note:** If you set up Special Pricing for special pricing for membership fees, be sure to view your Join Now page using test users for each special pricing scenario to ensure that the fees appear as you intend.

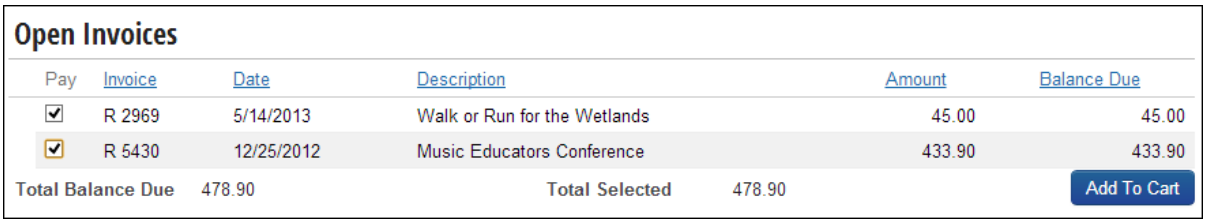
## Paying open invoices

You can pay any open invoice that you can view in the Open Invoices section of an individual or organization account page. If you are a staff user with **On Behalf Of** privileges, you can view and pay open invoices for any contact. If you are a Company Administrator,

you can view and pay open invoices for your organization and for members of the organization.

> **Note:** Only open invoices for orders, events, and desktop sales transactions display in the **Open Invoices** section. Pledges, outstanding accrual membership invoices and cash membership fees do not display.

1. Select **Community > Find contacts**.
2. Find and open the contact for which you want to pay an open invoice.
3. Click the **Participation** tab to view the Open Invoices section.
   Click to view image




> **Note:** The Open Invoice List Display content item displays by default on the individual and organization account pages, but you can add it to any part of the member site. See Open Invoice List Display for more information.

4. Select the checkboxes in the **Pay** column to select the invoices you want to pay.
5. Select **Add To Cart**. The selected invoices are added to your shopping cart.

> **Note:** If you have **On Behalf Of** privileges, you are automatically transitioned to act **On Behalf Of** the invoiced contact. The invoices are not added to your own cart.

6. In the **Payment Details** area, enter the appropriate information.
7. Select **Submit Order**.

## Creating communications with iMIS

The iMIS Communication Creator allows you to design and send email communications to your members. You can create a query to generate a list of members to email, tailor an email message, and add attachments. For example, you may want to send a welcome

message to new members of your organization or to remind members to pay for their overdue membership renewal.

To set up a communication email, a Staff user will need to:

- Create a query-based contact list to determine the recipients to email
- Add the Query menu content item to a content record with a link to the query
- Add the content record containing the query to a content page or sitemap

> **Note:** For a step-by-step how-to tutorial with recommended best practices, please see Configuring and sending email.

*See also*

- Creating a list of contacts to email
- Adding the communication query to a contact record
- Sending an email to a list of contacts
- Sending an email to an individual contact
- Working with email message drafts
- Customizing the email recipient list
- Add an attachment to an email
- Advance Email Marketing

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## Creating a list of contacts to email

To get started, you will need to create a query that displays a list of contacts or recipients you want to include in the email communication. The results of the query determine the list of recipients and the database property fields that can be used in the email communication.

1. In the Staff site, go to **Community > Manage communication templates**.
2. Define a new query. See Intelligent Query Architect (IQA) for more information on creating queries.
   a. Select **New > Query** and enter a name for the query.
   b. Select the **Advanced mode**.
   c. Select the source business object(s).
   d. Add property filters if you want to narrow the query list.

> **Note:** If you require a **Prompt** for the user to select a parameter value before displaying the contact list, the **Configure Recipient Sources** button will be hidden, and you will not be able to configure the recipient list before an email is sent.

e. Select the columns you want to display.
(Required) You must select one of the following properties as a column or use one of these terms as a column alias: **ContactId**, **Contact Id**, **CustomerId**, **Customer Id**, **iMISId**, **iMIS Id**, **PartyId**, **Party Id**, **StudentId**, **Student Id**, or **Id**. The aliases are not case sensitive. When an email is sent from a list, the parameter **{#party.Email}** is included in the email **To** field so the email is sent to the entire list.

> **Note:** If you do not want the required column or alias to display in the Query Menu content item on your website, use **code_** to preface the alias (e.g., **code_PartyId** or **code_iMIS Id**).

3. Run the query to review the results. The results of the query determine the list of recipients to include in your email communication.
4. **Save** the query.
5. Select the folder where you want the query to be stored. To keep your email recipient queries organized, it is recommended that you use the **Queries** folder at **$/Common/Communications**.

## Adding the communication query to a content record or site map

Before you can send an email communication, you will need to add the **Query Menu** content item to a content record and display that content record on a content page or sitemap.

### Adding a communication query to a content record

1. In the Staff site, go to **RiSE > Page Builder > Manage content**.
2. Select the folder where you want the content record to be stored.
3. Select **New > Website Content**.
4. Enter the content name and select the layout.
5. Select **Add content**.
6. From the **Utility** folder, select **Query Menu**.
7. Configure the **Query Menu** content item:
   a. (Required) Select the **Enable email merge from query results** option. This option activates and displays the **Email** button below the query results and merges the email contact list from the query results.

b. Select the query you want to use as the **Source query**.
c. Click **OK**.

8. Save and publish the content record.

Another alternative is to create a new sitemap navigation item to provide a convenient way for your staff to access the list of contacts to email. For example, you might consider creating a Communication navigation item that points to the content record containing the query. The content record could also contain multiple queries for different email communications.

> **Note:** The sitemaps for **Core Sites** and **Quick Start Sites** are protected for use by iMIS and are subject to being overwritten during an upgrade. However, adding a new navigation item to any of these sites is preserved during an upgrade.

**Adding a communication query to a sitemap**

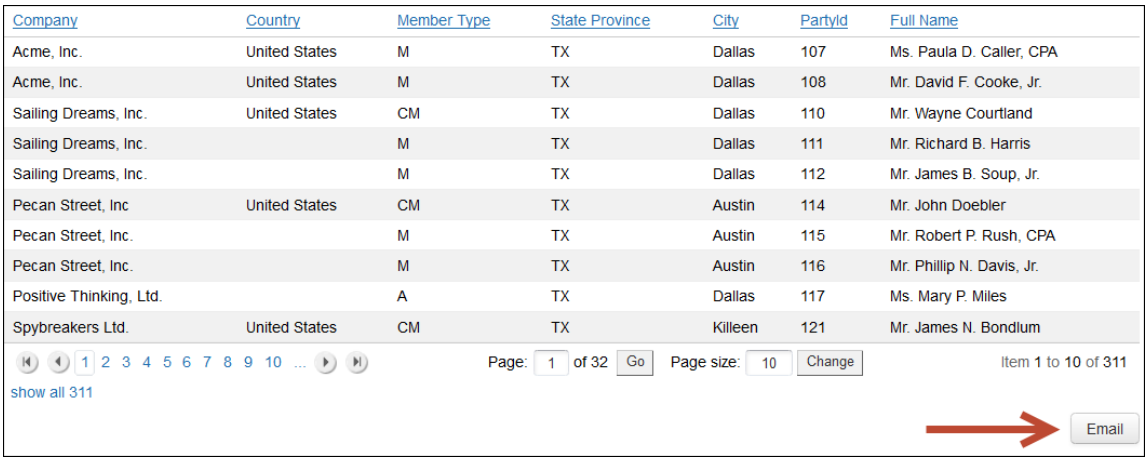
1. From the Staff site, select **RiSE > Site Builder > Manage sitemaps**.
2. Select the website from the drop-down arrow.
3. Select **New > Website Navigation** Item.
4. Enter the navigation name and sitemap parameters.
5. Select the content record containing the communication query previously added.
6. Save and publish the new navigation item.
7. Select the navigation and locate the query **Email** button to send an email.

## Sending an email to a list of contacts

An iMIS staff user can send an email to any query-based list of contacts if the **Email** button displays below the list. You can review the list, remove contacts from the list, and include attachments before sending the email.

> **Note:** If the query prompts the user to select a parameter value before displaying the contact list, the **Email** button will display after the parameter value is selected. For these types of queries, the **Choose Recipients** link will be hidden, and you will not be able to configure the recipient list before an email is sent.

1. Open the query-based contact list from the content record.
   Click to view image

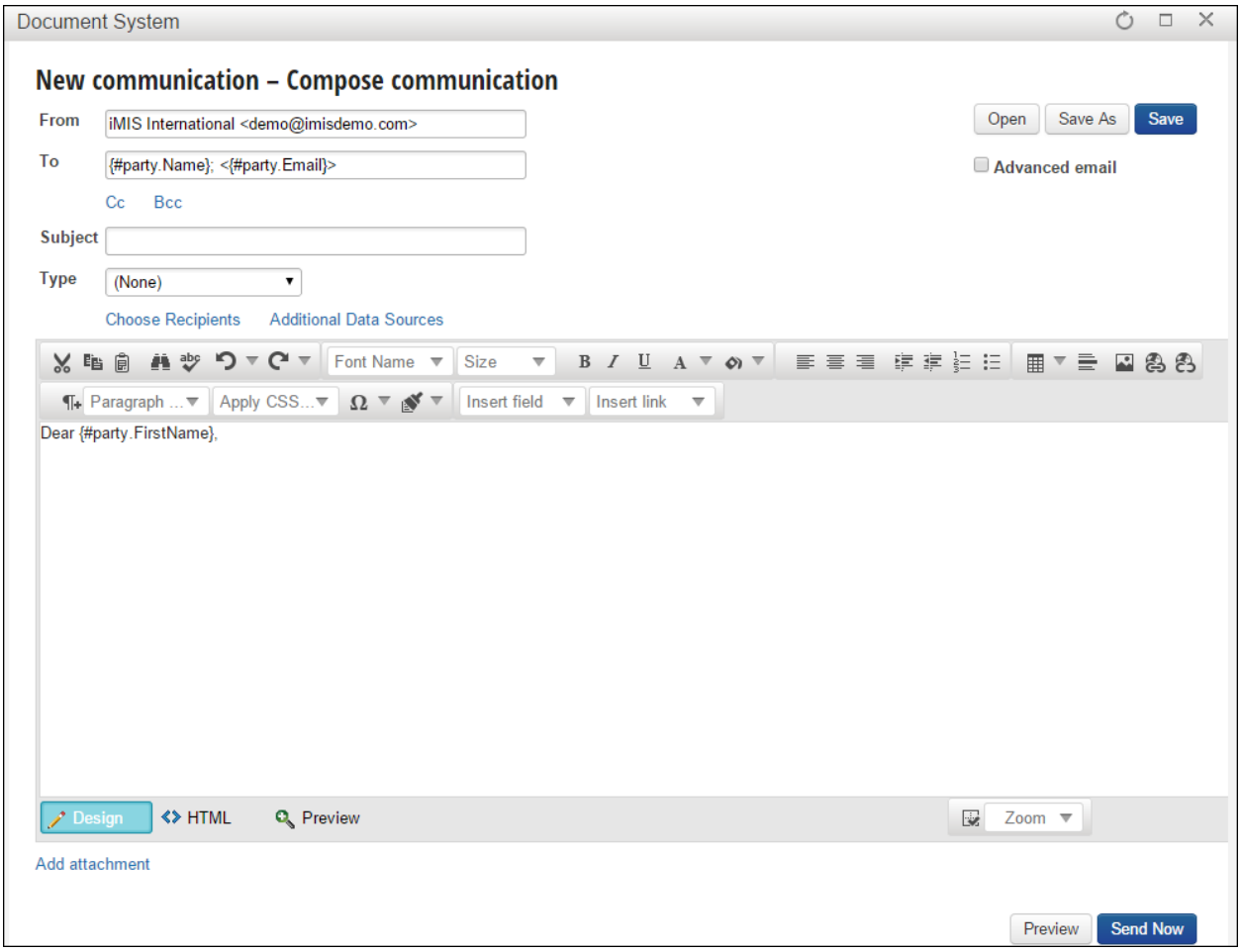



2. Click **Email** to open the email editor. Two parameters are auto-filled:
   - The email **To** field includes the parameter **{#party.Email}**, which will automatically include all contacts from the query results.
   - The salutation includes **{#party.FirstName}**, which will add the recipient's first name when the email is sent.
3. Compose the email. Enter the **From**, **Subject**, **Type**, and email message. If needed, click the **Cc** or **Bcc** links under the **To** field, so you can enter **Cc** and **Bcc** email recipients.

> **Note:** The **Type** field provides your members with classes of email to opt in and out of. You can find more information about email **Types** in the Communication Types section of the helpsite.

> **Note: Cc** and **Bcc** recipients will receive one copy of every message per recipient if the email is being sent to every recipient in a query.

Click to view image




4. (Optional) By default, email addresses display in the **From**, **To**, **Cc** and **Bcc** fields. If you would like to display a friendly name, simply enter the friendly name in the field before the email address. For example, “Your Organization Name <info@yourorganization.com>” will display to recipients as “Your Organization Name.”
5. (Optional) Click **Additional Data Sources** to associate additional data sources with the email template. Fields from the data sources can be inserted in the email message. The **party** data source, which provides basic information about email recipients, is a default data source.

   Click for details

a. Click **Add data source**.

i. Select a query.

ii. If needed, change the **Alias** for the data source.

> **Note:** The **Alias** is how you refer to the data source when creating the email communication. Fields from the data source will be prefixed by the **Alias** in the **Insert field** drop-down. The default **Alias** is the query name.

iii. Click **OK**.

iv. To edit a saved data source, click its edit icon and make the necessary changes.
If a filter in the additional data source matches a display column in the recipient query, the property is used to link the two queries. For example, if the data source uses **ContactKey** as a filter and the recipient query uses **ContactKey** as a display column, their information can be linked. The **Prompt** for the filter in the data source should be set to **Required**.
When the additional data source does not use filters or uses non-matching filters, only the fields retrieved in the first line of the query results can be inserted in the email template. These data sources are useful when you want to insert standalone information, such as the name of a program administrator, that is not related to the recipient list in the email message.

b. Click **Return to Compose**.

6. (Optional) Use the **Insert field** drop-down to add fields to be merged for each recipient. Available fields include columns from the recipient query and added data sources and also commonly used contact properties.
7. (Optional) To include repeating data in the email from an associated data source, use the `{foreach}` placeholder. Follow the format below:
Click for details
   - The opening `{foreach}` placeholder must have a closing `{/foreach}` placeholder.
   - The opening placeholder should conform to the following syntax: `{foreach alias in source [orderby [property,...]]}`. This syntax consists of the following components:
     - **alias** - A name for a record in the data source that contains the repeating data.
     - **source** - A data source associated with the email that contains the repeating data. Within the `{foreach}` placeholder, the source is referred to by the alias for the additional data source.
     - **orderby** -(optional) To sort the data, use the orderby keyword followed by a comma-delimited list of properties to sort the data by.

- A maximum of 5 sorting properties may be specified.
- Property names must refer to properties in the data source.
- Do not specify a data source in the property names.
  - You can use HTML tags within the placeholders to format the repeating data. Add the HTML tags in the HTML view. For example, you can use the <ul> tag to create a bulleted list.
  - In the following example, merge fields from an associated data source (aliased as **lines**) that retrieves product order information would repeat in the email. The **l** is the alias within the `{foreach}` placeholder for a record in the data source. The descriptions, quantity ordered, unit price, and extended amount properties are repeated for each record in the query results. The quantity ordered property is formatted to use 0 decimal places.

    ```
    {foreach l in lines}
    {#l.Description} {#l.QuantityOrdered format="0"} @ ${#l.UnitPrice} = ${#l.ExtendedAmount}
    {/foreach}
    ```

    Several lines in the email sent to a contact might look like the following:
    Certification Practice Exam 1 @ $39.99 = $39.99
    Conference Proceedings 1 @ $120.00 = $120.00
    Software Basics: New Hybrid Edition 1 @ $19.99 = $19.99

    In this scenario, the email uses a recipient query with a filter that matches a display column in the additional data source. This links the recipient query and the data source, so only product information for the contact receiving the email displays. If the data source with the repeating data is not linked to the recipient query, all of the records in the data source will be listed in the email.

8. (Optional) To save the email as a draft for future use, select **Save As**. The email message draft is stored in the **$/Common/Communications** folder of the Document System.
9. (Optional) Click **Open** to select a previously saved email message draft.
10. (Optional) Click **Choose Recipients** to review the contact list generated from the original query. By default, all recipients are selected. If needed, you can **Select** another query to

use a different contact list. To remove recipients from the list, uncheck the option box for each name you want to exclude.

By default, the maximum recipients returned by communication queries is 500. If your query returns more than 500 recipients and you would like to deselect someone that isn't shown, you will need to modify the limit in the web.config file.

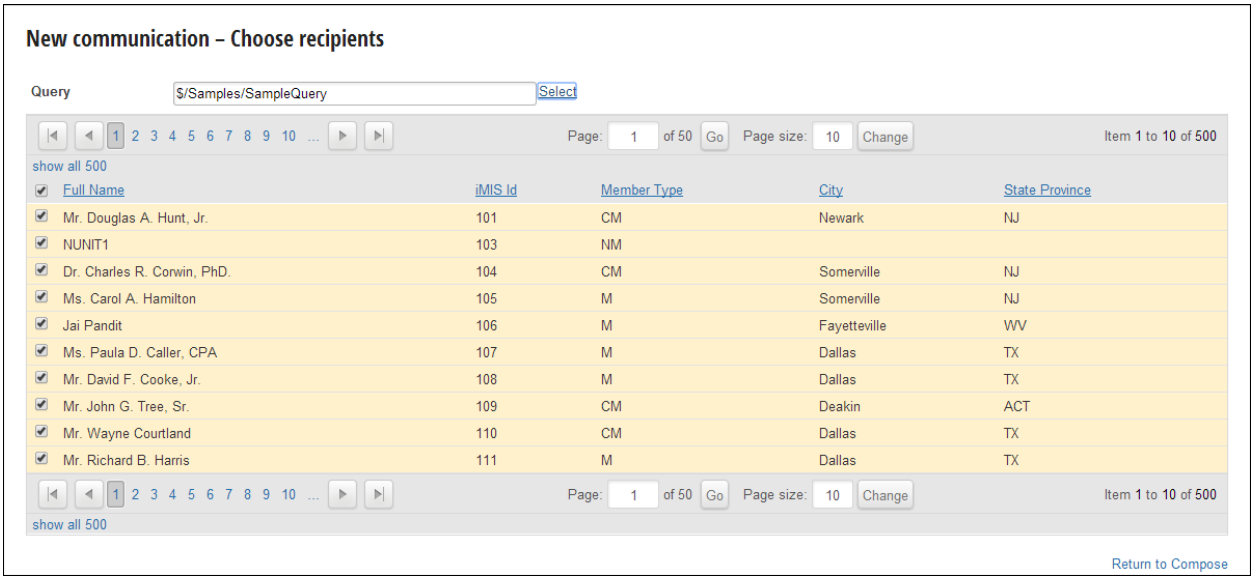
Modifying the limit

Locate the web.config file: **C:\Program Files (x86)\ASI\iMIS\Net\web.config**

Once the file is open, modify the highlighted line to the desired limit:

```
<iMIS>
  <SystemParams>
    <add key="Authenticate.Anonymous.Allow" value="true" />
    <add key="Authenticate.Anonymous.UserId" value="GUEST" />
    <add key="Authenticate.PersistLogin.Allow" value="true" />
    <add key="Authenticate.PersistLogin.Minutes" value="0" />
    <add key="Authenticate.SecureLoginPage" value="false" />
    <add key="Authenticate.WindowsIdentity.Allow" value="true" />
    <add key="Browser.DisableContextMenu" value="true" />
    <add key="CustomErrors.ErrorPage.DisplayMode.Debug" value="false" />
    <add key="SqlCommand.CommandTimeout" value="300" />
    <add key="AtomCompiler.DebugCompile" value="false" />
    <add key="PagedResults.MaxRecords" value="500" />
    <add key="Authentication.AllowAddUserToAuthStore" value="true" />
    <add key="Authentication.AllowUsernameChange" value="true" />
    <add key="Authentication.PasswordResetTokenExpireDays" value="7" />
    <add key="BOD.AssemblyCachePeriod" value="5" />
    <add key="Sitemap.CachePeriod" value="5" />
    <add key="Communities.AllowedUploadFileTypes" value="DOC,FOL,GIF,HTM,JPE,JPG,PDF,PNG,PPT,TXT,RTF,WMV,XML,ZIP" />
    <add key="Communities.EmbedImageAttachments" value="true" />
    <add key="Communities.EmbedVideoAttachments" value="true" />
    <add key="Communities.EmbedAudioAttachments" value="true" />
    <add key="Content.EnablePageCaching" value="true" />
```

Click to view image



11. Click **Return to Compose** to return to the email.
12. Click **Add attachment** to select a static document previously uploaded in the Document system or a Reporting Services templates (RDL).

    **Note:** An iMIS staff user can attach a Reporting Services template from the Document system, if the communication dataset contains a **PartyId** property and the Reporting Services template has a **PartyId** as a parameter. A Reporting Services template is run for each email, using each **PartyId** included in the communication dataset. A PDF of the individual reports, and a personalized invoice for all of the people in the result dataset, is generated. If the communication dataset does not contain a **PartyId** property, the report will not be attached to the email.

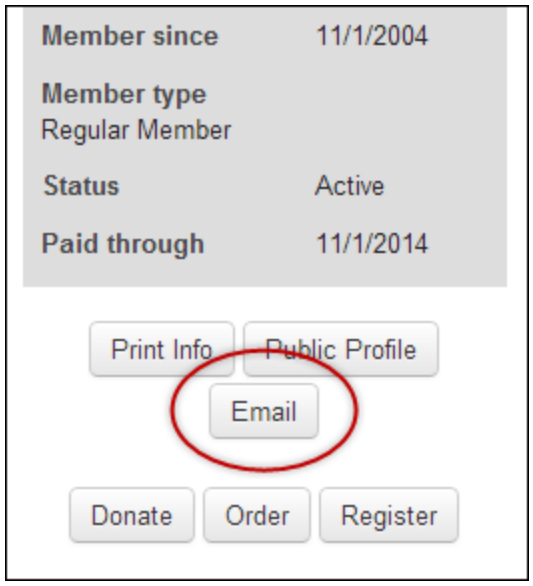
13. Click **Preview** to see how the message will appear for each selected recipient. Click **Prev** or **Next** to review the email for each recipient.
14. (Optional) Enable **Advanced email** when sending mass (or bulk) emails for more efficient and immediate deliverability. See Advanced Email Marketing.
15. Send the email communication. A confirmation notification is displayed. The confirmation indicates that the number of messages attempted matches the number of results selected. Errors are listed individually explaining why the email was not sent.

### Sending an email to an individual contact

You can send an email to an individual contact from their account page profile:

1. Navigate to an individual's account page profile.
2. Click **Email** to open the email editor.

Click to view image

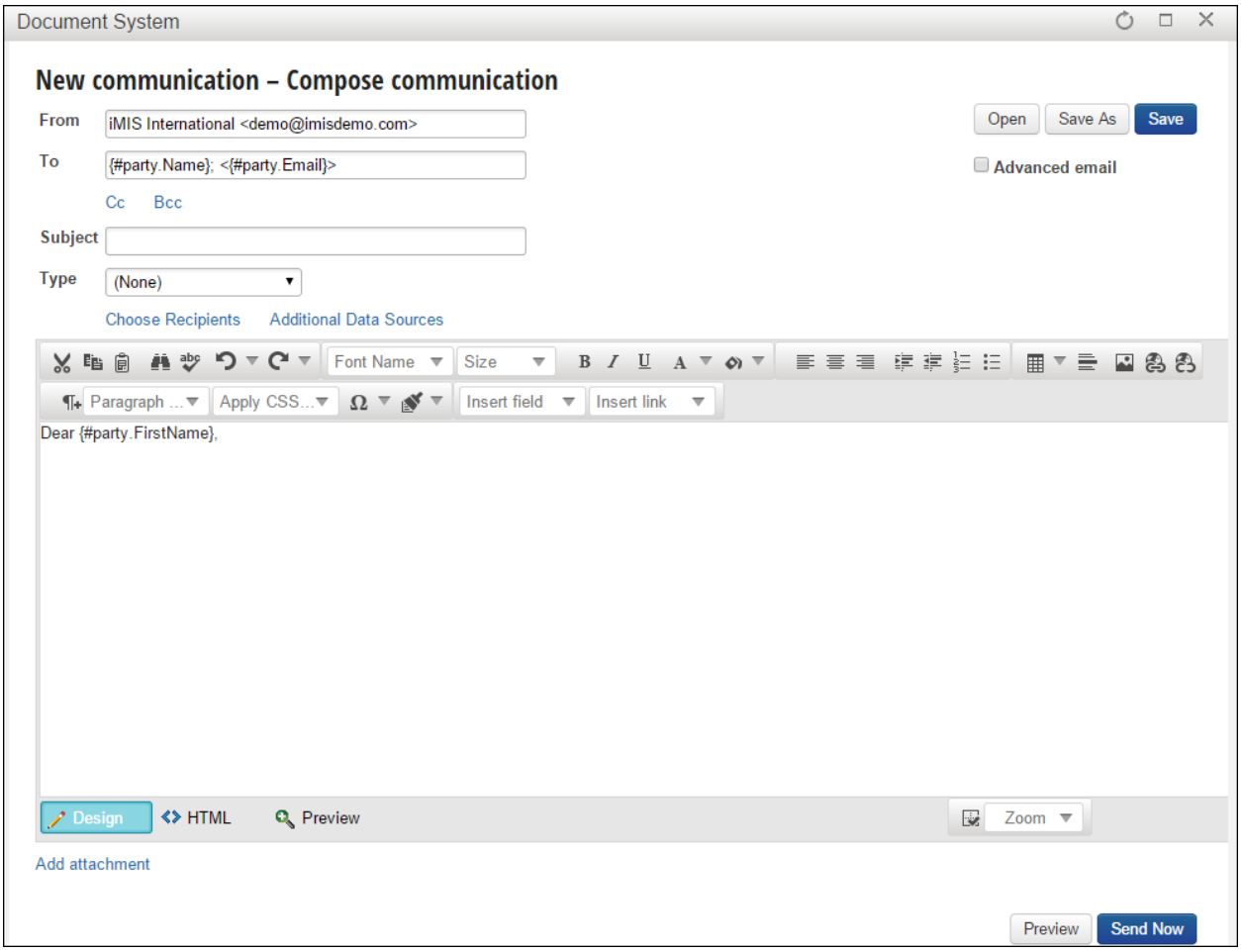



An email editor opens with the **{#party.Email}** and **{#party.FirstName}** auto-filled in the To field and in the salutation.

3. (Optional) By default, email addresses display in the **From**, **To**, **Cc**, and **Bcc** fields. If you would like to display a friendly name, simply enter the friendly name in the field before the email address. For example, “Your Organization Name <info@yourorganization.com>” will display to recipients as “Your Organization Name.”
4. Add a subject line and type in the email you want to send and click **Send Now**.
5. Optionally, you can add **Cc** and **Bcc** recipients, add an attachment, load a previously saved email template, or save the email as a draft for future use.

   **Note: Cc** and **Bcc** recipients will receive one copy of every message per recipient if the email is being sent to every recipient in a query.

6. Click **Preview** or **Send Now**.
   Click to view image




## Working with communication templates

Communication templates allow for repeat communications using a common query data source, for example, a draft to mail a list of new members at the end of each month. When you send an email, the results of the query determine the list of recipients, regardless of the communication template used. When you send or preview a communication the query data source is reevaluated. This means that every send or preview could result in a different set of contacts based on the parameters of the associated query.

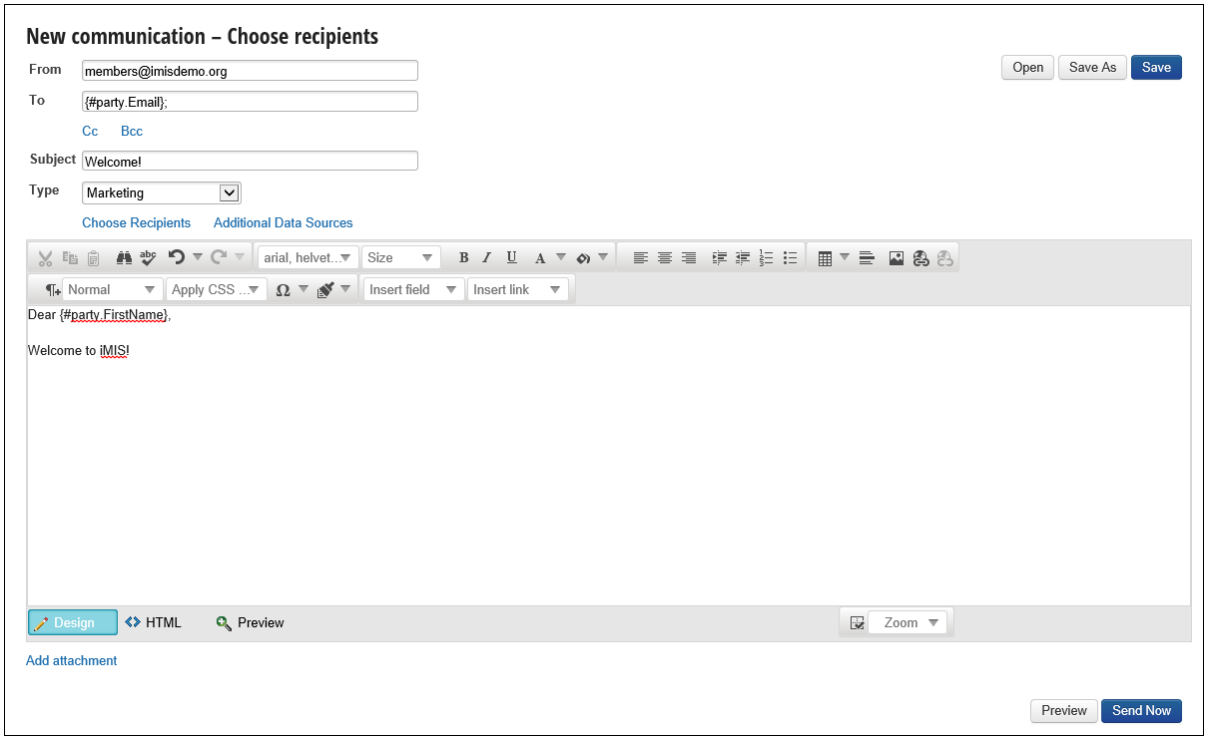
You can create a communication template by selecting **Email** from any query list or editing a previously saved draft from the **Document system** in the Staff site (**RiSE > Document system**). Communication templates are stored in the **$/Common/Communications** folder of the **Document system**.

Creating a new communication template

1. Click **Email** from the content record containing the list of contacts or from a member's profile page.
2. After you compose the email, click **Save As**.

> **Note:** Any attachments you have added to your email will be saved with the draft. iMIS supports RDL and PDF email attachments.

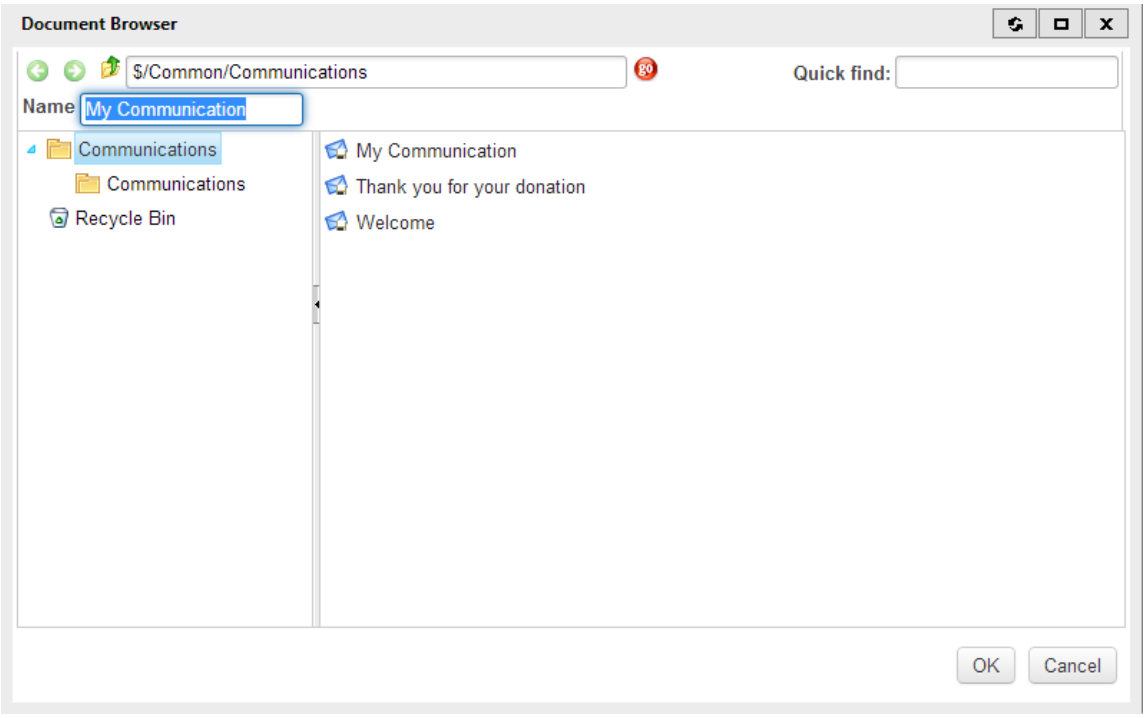
Click to view image




> **Note:** See Managing communication preferences and Creating email communication templates for information on how you can use communication types and insert a communication preferences hyperlink in the email to allow users to easily manage communication preferences.

3. Enter a name for the communication template.
   The name defaults to **My Communication** and is stored in **$/Common/Communications** folder of the Document System.

Click to view image



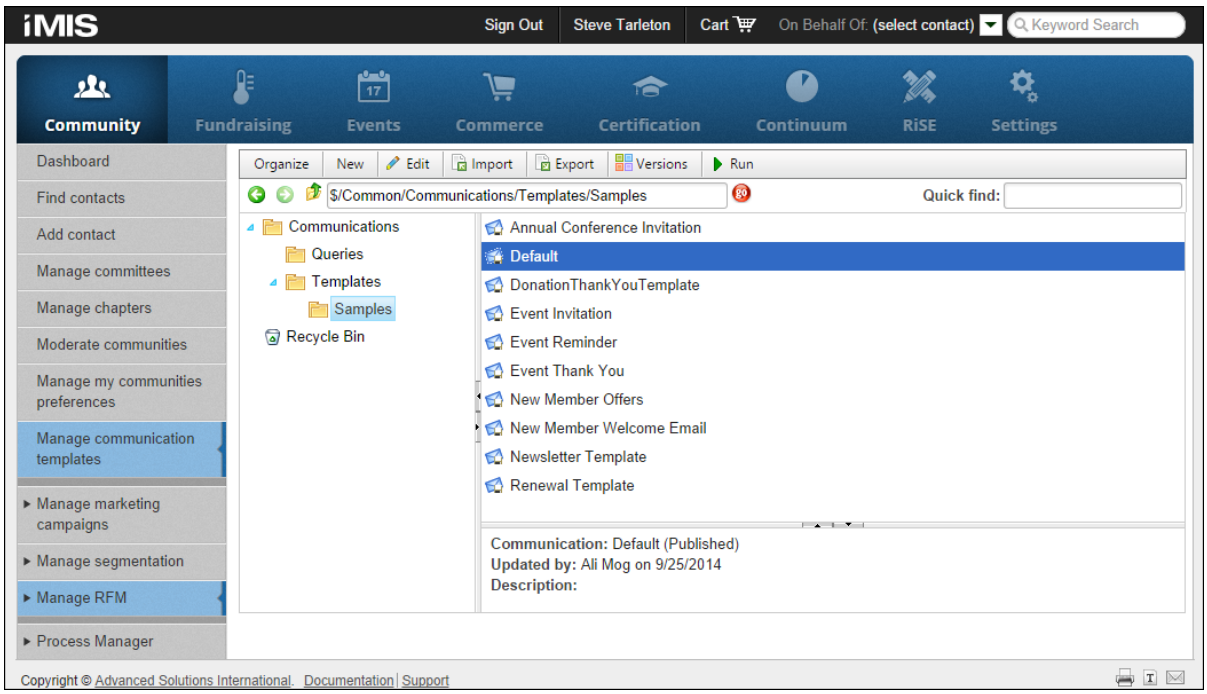

4. Click **OK**.

Setting up a Default communication template

You can now tailor a default template that can be used whenever a new communication is composed. Simply follow the steps below:

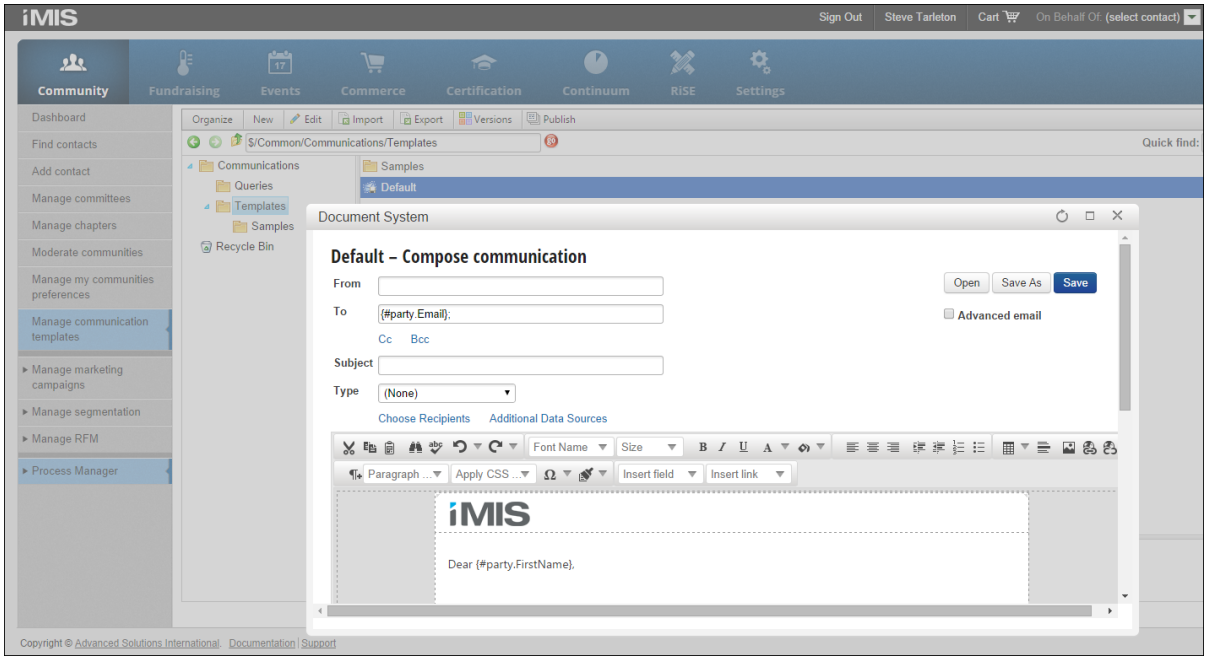
1. Navigate to **Community > Manage communication templates > Templates > Samples**.
2. Select the Default template.

Click to view image




3. **Copy** and **Paste** the template to the **Templates** folder in order to avoid having your template overwritten during an upgrade.
4. Edit the template as needed.

   Click to view image



> **Warning!**
>
> Do not rename the template. In order for the template to be set as the default template, it must be titled “Default.” There should only be one template titled “Default” within the Templates folder. If there are multiple templates entitled “Default,” then the most recent default template will be used.

5. Select **New > Communication** to view your new default communication template.

> **Note:** If a **Default** template is not defined in the **Templates** folder, the standard Communication Creator message designer will be used for new communications.

Modifying a saved communication template

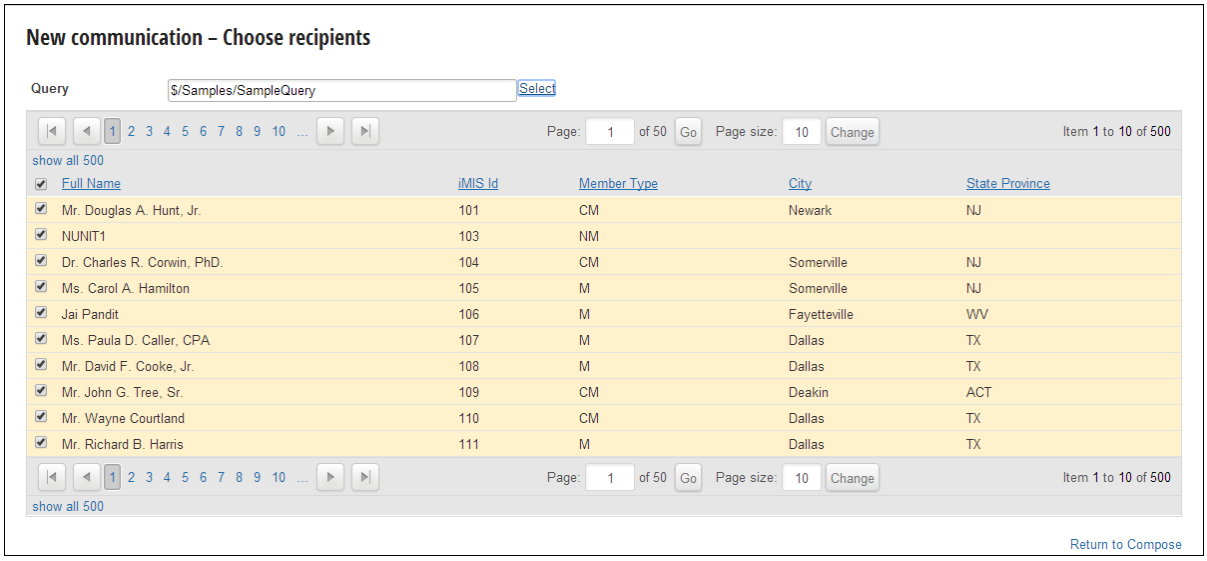
You can open a saved communication template directly from the contact list by selecting the **Email** button or from the **Document system**.

1. To modify a communication template directly from the contact list:
   a. Click **Email** from the content record containing the list of contacts or from a member’s profile page to open the email editor.
   b. Click **Open**.
   c. Select an existing template and click **OK**. The template opens with the content previously saved in the template. Using a template does not affect or overwrite the list of contacts.
   d. To update the email template, click **Save**.
2. To modify an email template from the **Document system**:
   a. From the Staff site, select **RiSE > Document system**.
   b. Go to **$/Common/Communications**.
   c. Edit the communication template.
   e. Click **Save**.

## Customizing the email recipient list

A staff user can review the recipient list, and then select or deselect contacts from the list before sending the email communication. This allows the staff user to select only those contacts who they want to receive the communication.

1. Open the query-based contact list from the content record.
2. Click **Choose Recipients**. You will see a grid showing the full results of the original source query. If needed, you can **Select** another query to use a different contact list. By default, all recipients are selected. To remove recipients from the list, uncheck the option box for each name you want to exclude.
   Click to view image




3. Select specific rows in the results to determine who will receive the communication. By default, all rows are selected.
4. Click **Return to Compose** to return to the email editor.
5. Click **Preview** to see how the message will appear for each selected recipient when merged. The preview includes only the specific recipients selected.
6. Send the communication. A confirmation notification is displayed. The confirmation indicates that the number of messages attempted matches the number of results selected. Only the recipients selected by the user receive the communication.

## Add an attachment to a communication template

An iMIS staff user can add attachments to communications. The attachments can be static documents chosen through the Document system or a Reporting Services template (RDL).

A RDL is run for each email, using the recipient's **Id** as a **parameter**. Your recipient query must include the Id number of the person who is receiving the report so that each

recipient receives the correct information. A PDF of the individual reports for all of the people in the **result dataset** is generated.

- This Id can be aliased as any of the following:
- **Contact Id**
- **CustomerId**
- **iMISId**
- **Id**
- **PartyId**
- **StudentId**
- In your RDL, you must have a parameter with one of the following names:
- **ContactId**
- **CustomerId**
- **ID**
- **iMISId**
- **PartyId**
- **StudentId**

> **Note:** We recommend that the name of the **Id property** in the recipient query matches the **parameter** in the template.

If the Reporting Services template does not contain one of the parameters listed above, a static report, which only uses data sources within the report and does not use recipient data from the communication dataset, is attached to the email.

Do the following to add an attachment to an email:

1. Open the email editor from an IQA query.
2. Click **Add attachment** to open the **Document Browser** window.
3. Browse to the content you want to attach to the email. Select the content.
4. Click **OK**.

> **Note:** If you choose to save your email communication after including an attach-

ment, those attachments will also be saved.

**Note:** iMIS supports RDL and PDF email attachments.

## Advanced Email Marketing

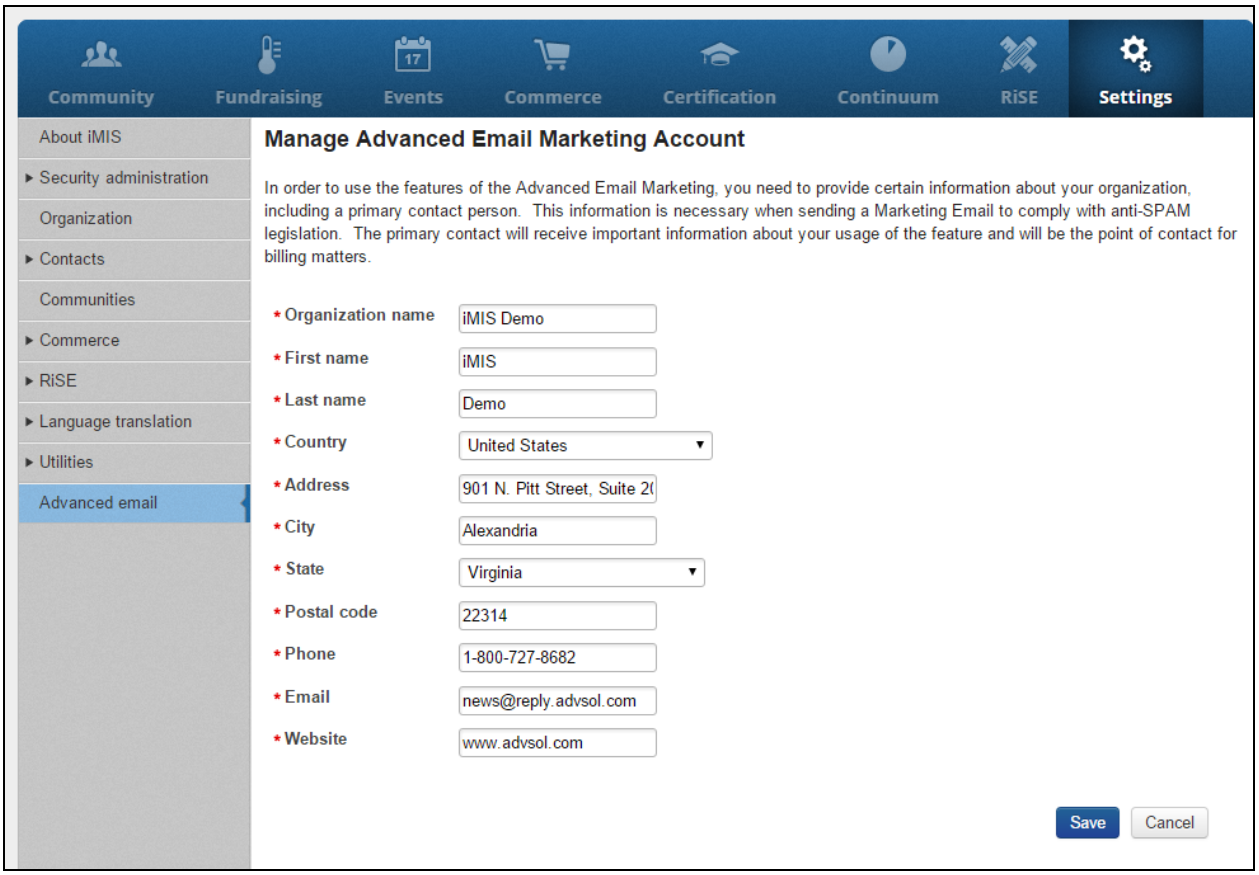
Advanced Email Marketing enables members to compose and send mass (or bulk) emails with efficient and more immediate deliverability. After creating an account, the Advanced Email Marketing option is available within the Communication Creator.

**Note:** In order to use Advanced Email Marketing, you must have a license key. Contact your AiSP or ASI for more information.

### Configuring Advanced Email Marketing

Do the following to configure your Advanced Email:

1. From the Staff site, go to **Settings > Advanced email**.
2. Provide the required information. The **Disabled notifications** option provides Staff users the ability to enable or disable email notifications. When this option is selected, email notifications will not be received.




3. (optional) Advanced Email is disabled by default for test databases in order to avoid redirection of live email notifications to the test database. A **Reactivate** button is displayed whenever a change in the configured SQL server or database name is detected. Click **Reactivate** only when the database is the primary live database. This database will then receive notifications, whereas any previously configured database will not.

- If **Reactivate** is accidentally clicked and you want to revert to using the original database, go to **Settings** for the original instance and click **Save**. This will update the Advanced Email service account with the original notification URL.
- Enabling and disabling notifications turns notification tracking for all new Advanced Emails for all instances of iMIS for an organization on and off. **Deactivate** and **Reactivate** updates the Advanced Email server setting for the URL to which all email notifications will be sent. Deactivation happens automatically whenever iMIS determines that the current database or SQL server name has changed, whereas reactivation for any instance of iMIS sets the email notification URL to point to the instance from which you reactivate, as the live database.

4. Click **Save**.

   > **Note:** It is recommended that you contact your IT department to complete the remaining steps.

5. By default, ASI chooses "imismail" as your subdomain. If you would like to change this subdomain name, you must contact ASI. You are only able to have one subdomain name.
6. ASI will automatically create a whitelabel per the website address that is submitted in the advanced email settings (step 2 above). If you will be using additional domains to send emails from, please contact ASI to have these added to your whitelabels. After the whitelabel is created, ASI will then send you CNAME records so that you can add the records to your DNS.

   > **Note:** ASI must whitelabel your domain before emails can be successfully sent. Emails will not successfully send if the **From** field does not contain an email address that matches the whitelabeled domain name.

**Sending an email using Advanced Email Marketing**

Before sending Advanced Email communications, review the following:

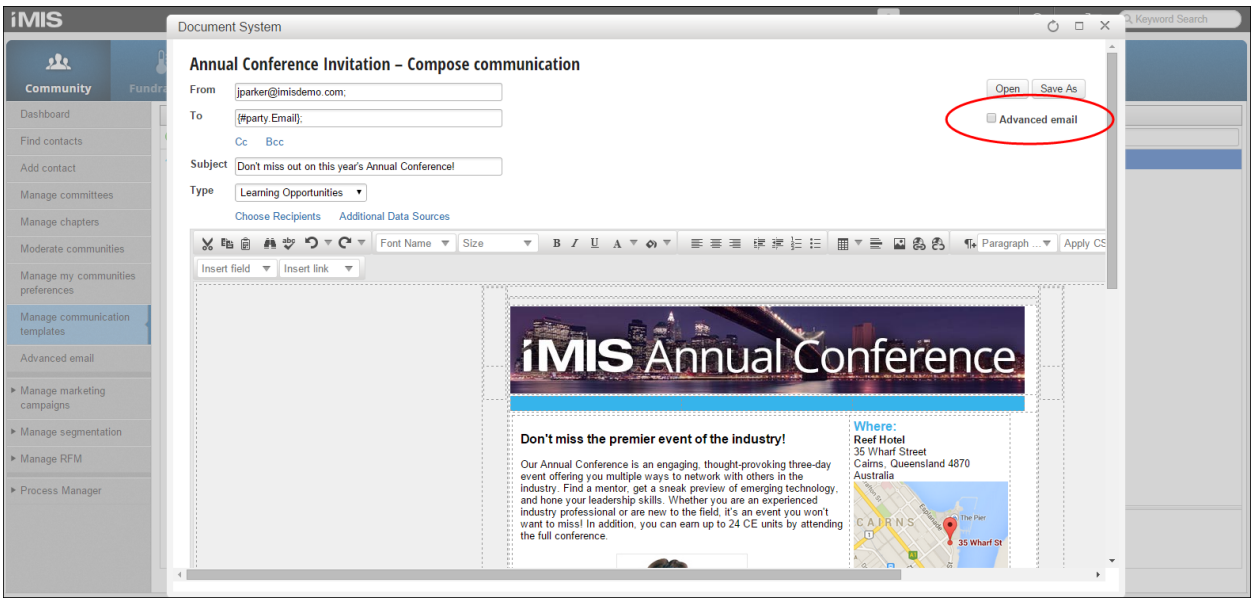
- It is recommended that you only perform mass mailings using Advanced Email during off-peak hours.
- The **Advanced email** checkbox is not displayed in the communication template if an account has not been created, and is disabled if the database has not been reactivated, for example, on a test database.
- The email address in the **From** field must be a valid email with a domain that has previously been whitelabeled. See Configuring Advanced Email Marketing for more information.
- The foreach placeholder cannot be used in Advanced Email communications.
- When sending an email, the **BCC** and **CC** links, as well as the **Attachment** link, are not displayed. Advanced Email does not support the ability to include repeating data in the email from an associated data source. For more information, see Working with communication templates.

- Advanced email communications cannot be sent with more than 20 custom fields (insert fields). For example, you are creating an email for five people, and have a custom field in the subject line, for their name, two references in the body that detail event schedule items, and then one for your name. In this situation, you have used a total of five custom fields, and have a remaining 15.

> **Note:** This limit is reset about 24-hours after the last communication was sent.

Do the following to send an email using Advanced Email:

1. Compose an email. For example, select **Community > Manage communication templates > Templates > Samples > Annual Conference Invitation**.
2. Within the Communication Creator, enable **Advanced email** before sending.




> **Note:** When sending an email, the **BCC** and **CC** links as well as the **Attachment** link will not display. The repeater (using foreach) feature is also not supported with Advanced Email.

3. Select **Send Now**.

## Community

From the Staff site, Community offers a quick-view Dashboard of up-to-date contact and membership figures that are important to your organization. You can also find and add

contacts, moderate communities and manage your community preferences.

- You can see the following items on the dashboard:
- Active contacts
- Contacts by region
- Members by region
- Active members
- Renewals this year
- Five newest members




**Note:** Note: Dashboards are made up of a collection of content items that are configurable to you organization's specific needs. These content items simply call queries that populate the dashboard with your up-to-date, real-time information.

*See also:*

- Working with Contacts
- Viewing company participant lists
- Community Essentials
- Communities Administration

- Communities Implementation
- Communities Design
- Understanding Marketing Suite
- Setting up Marketing Suite
- Setting up Basic Campaigns
- Getting Started with Complex Campaigns
- Communications and Reporting
- Marketing Concepts and Terms
- Process Manager

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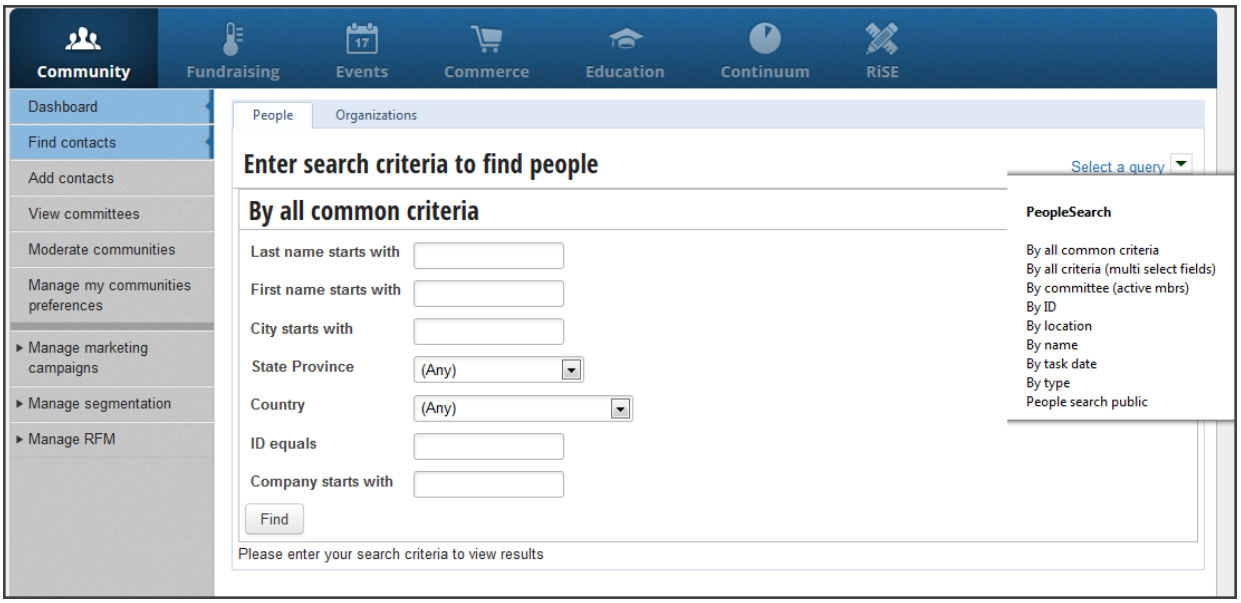
## Working with Contacts

From the **Community** section of the **Staff** site, the **Find contacts** page offers a drop-down list of prebuilt searches, which are a set of queries in the **Document System**:

**$/ContactManagement/DefaultSystem/Queries/Directory/PeopleSearch**

You can change these queries and add additional ones as fits your organization.

Click to view image

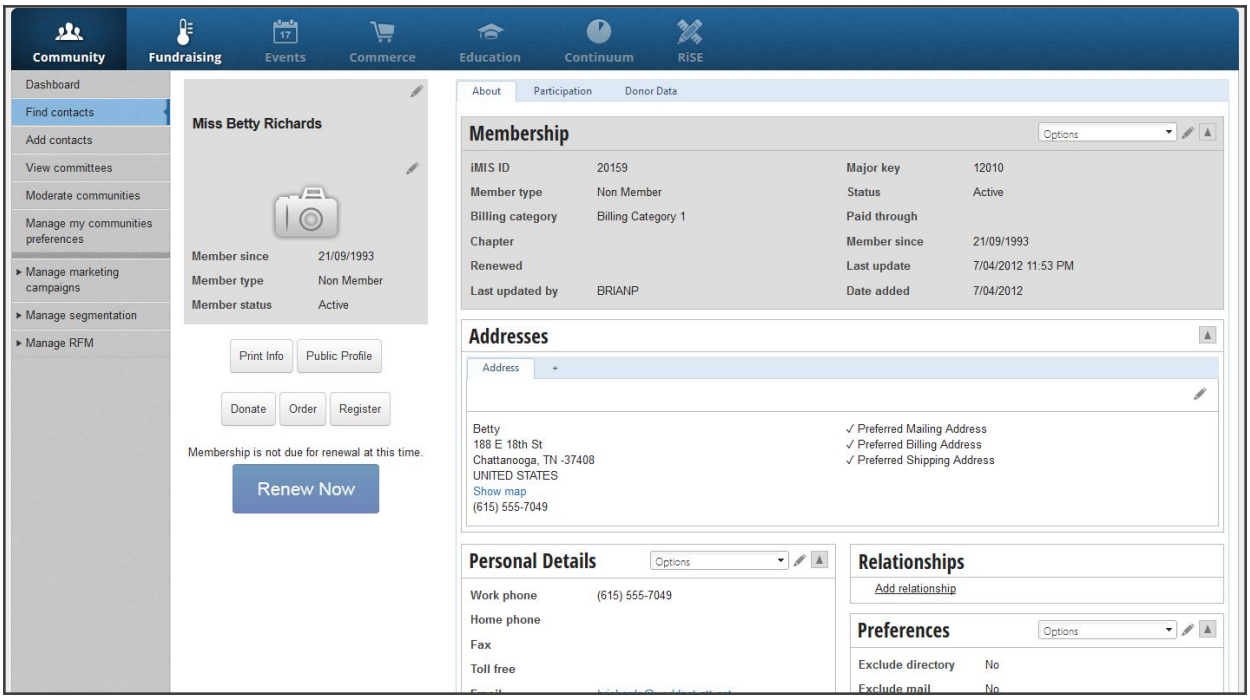



Because these searches use IQA, you can control the formatting of the printed output and let your staff export that contact data to Word, Excel, and data files. See Changing the default layout for SSRS reports.

You can add a new contact, enter contact details, and view a limited set of contact data for others. The process for changing contact records always begins with Find.

### To edit contacts

1. Search for the contact by using Find contacts.
2. Once you find the contact, you can change the record by clicking on their ID number and editing information on the resulting profile page.
   Click to view image

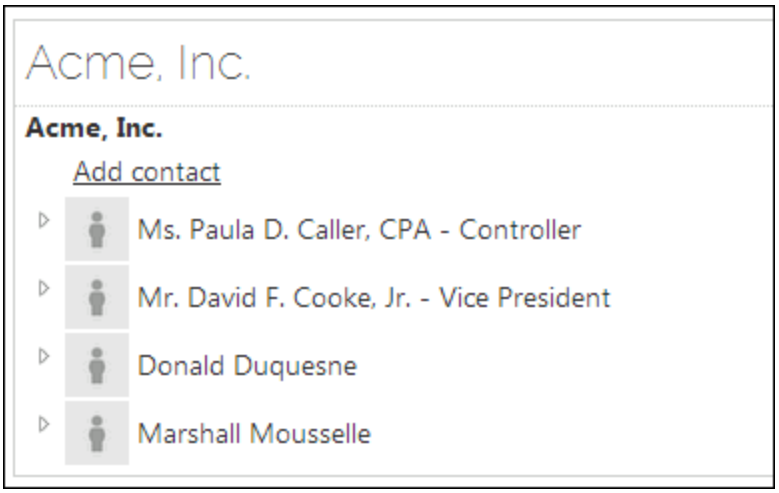



### To add contacts

1. Select **Add contact** and enter the required fields.
2. If you want to create a new account for the contact, check **Create an account**. You can then enter their user name and password.
3. Click **Save**.
4. You can add additional contact information on the resulting profile page.

## Viewing company participant lists

The company participant allows you to view all members associated with a company record. To view a company record, find and select the organization to view the organization information and the company participant list.




### To add a contact to the company participant list

Members with the **Company Administrator** role can add contacts to a company participant list and edit contact information. Any Staff user can assign a member to the **Company Administrator** role directly from the company participant list as long a member has a user login. Once a user has been given the CompanyAdministrator role, they can assign it to other members within their company participant list.

1. Select **Community > Find contacts > Organizations**.
2. Find and select an organization.
3. Select **Add contact** in the company participant list.
4. Find an existing contact or select **Add New** for a new one.

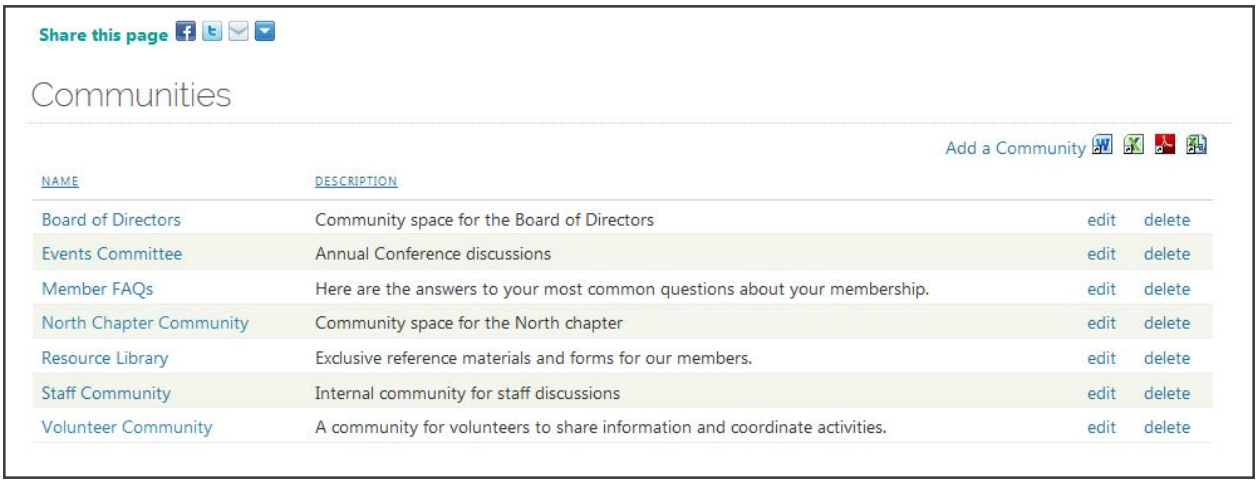
## Community Essentials

Start here to learn what you can do in Communities as a member, a subscriber, a moderator, or a wiki author. Moderators and wiki authors are members who hold extra permissions to help do the work of developing and managing the content in a community.

### Quick facts: Communities

With Communities, your organization can host multiple communities, each offering its own discussions, document libraries, coauthored wikis, and personal blogs.

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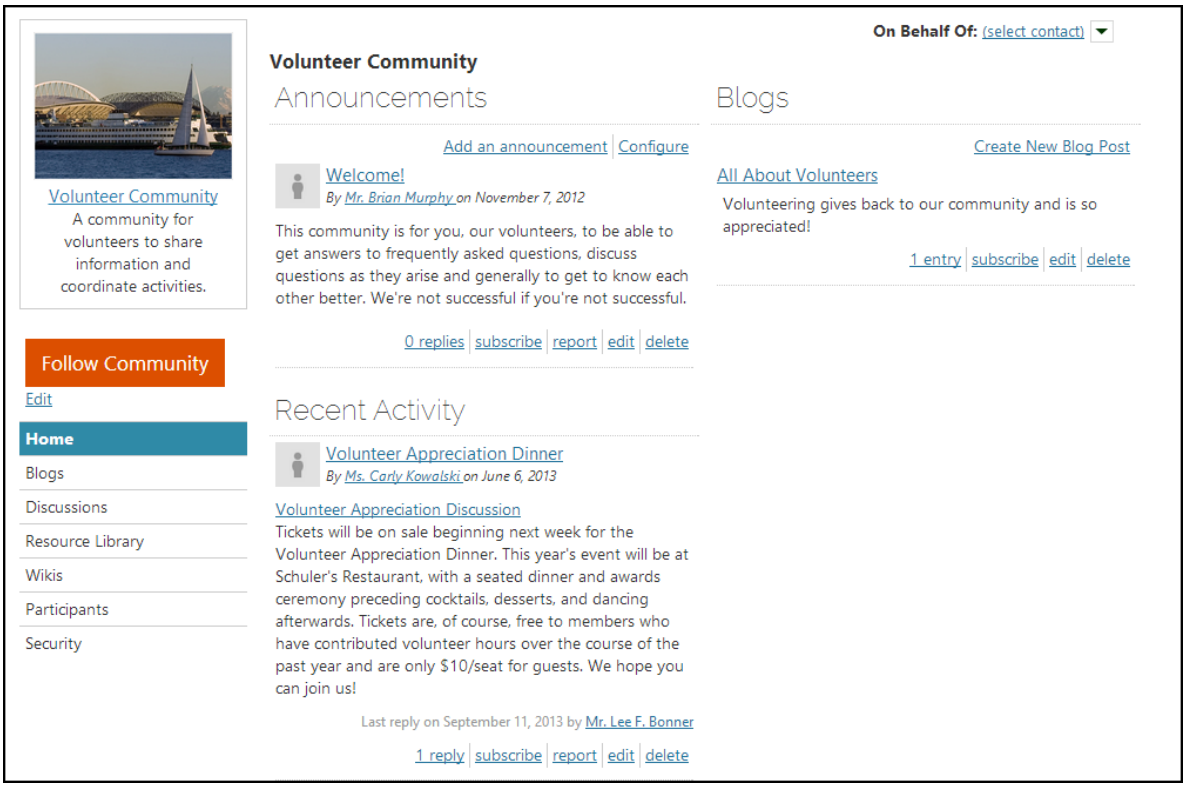

Create as many standalone communities as needed to support groups within your organization.

This integrated set of community features offers a robust set of collaboration and communication tools that match and extend your online presence. iMIS Community uses your existing iMIS contact records and leverages iMIS security and website management tools. Community features include:

- **Discussions**
- unlimited number of discussions per community
- replies that are threaded with the rest of the topic discussion
- posts that can be reported as inappropriate
- subscribe for email notifications for entire discussions or specific topics
- **Blogs**
- individuals or groups can start a blog
- linked, dated archive to previous blog entries
- subscribe for email notifications for one or all blogs
- **Wikis**
- supports collaborative authoring of wiki articles
- articles can have multiple authors, with online identity provided by iMIS
- subscribe for email notifications for any new or changed articles
- **Community management**
- each community has its own security settings
- same look and feel as the rest of your iMIS website

- subscribe to Recent Activity for updates on any and all content changes
- many choices in subscription granularity: community-level, all discussions/wikis/blogs, individual discussions/wikis/blogs, individual posts within discussions/wikis/blogs
- customizable email notifications
- **Resource Libraries**
- add documents, videos, audio files, and image files
- maximum file size is adjustable
- folders aid organization and security control
- define security permissions for the resource library the same as for the community

Click to view image




Each community has its own set of announcements, discussions, blogs, wikis, resources, and participants.

### What are communities?

An online community lets a group collaborate on projects, share knowledge, communicate and connect with others, and stay in touch using email subscriptions. Communities have configurable layout pages that help you manage both the shared content

and the group that defines the community.

Community management with iMIS offers some distinctly defined tools for collaboration and group work on the website. Use the tool that is right for how you want to disseminate the information. For example, put time-sensitive topics in a blog or discussion, but put knowledge base articles in a resource library or wiki.

Announcements
These posts display in the Announcements area of the Community page and can be configured to allow replies. They allow community administrators to broadcast messages to all community subscribers and members.

Discussions
Discussions let community members post and reply to discussions. Discussions contain topics, and subsequent entries on a topic are called posts. When a community member subscribes to a discussion, they receive an email every time that a post is added or when someone replies to a topic with a post.

Blogs
Blogs list entries chronologically, typically from newest to oldest. Group blogs contain entries from multiple authors, though many are created by a single author. Entries might offer commentary, news, event announcements, or material such as images or photos or links to other blogs. Blogs can be personal or professional. In a non-profit context, blogs are likely to be used for communication, connections, community growth or enhancement, marketing, customer support, or public relations purposes. Blogs allow other readers to write comments for individual entries, and readers can subscribe to a blog to receive every blog entry as an email. Community administrators can edit any blog entry.

Wikis
Wikis are collaborative web pages that are grouped together, enabling quick editing of the pages by allowing community members to add or edit articles to the community website. Wikis allow community authors and community administrators (or anyone, depending on the permissions) to add and edit articles. However, comments, the ability to view revision history, the original author, or subsequent edits of an article are not available for

wiki articles. Subscribing to a wiki means that every time an article is added or edited, you will receive an email message indicating what has changed.

Resource Library

Libraries store shared files, which are content such as Word or PDF files, forms, or graphics that you want to make available to everyone in the community to download.

Recent Activity

The Recent Activity area offers a view of every content item that has been added or updated in reverse chronological order. It is available in some of the community portal layouts, and subscribing to the Recent Activity is an easy way to ensure you receive an email notification for every content addition or update across the community.

Subscribers

Community administrators can add members based on any number of criteria, such as location or membership type. The subscriber list comprises the participants for the community.

**What are committees?**

Committees are typically groups made up of a specific number of individuals charged with a specific purpose. Committees usually include officer positions with term lengths of one year or more. Many committees are integral parts of the operation and management of a non-profit, while others are focused on a specific project, event, or program.

Committee management with iMIS offers an easy and efficient way of updating committee memberships for specific committees. The Committee Administrator has the ability to add, delete, and update committee memberships through the website. The committees have configurable layout page that help manage both the committee roster and coinciding positions and term dates.

List of participants

The list of participants includes information on all active committee members by default. Staff users can select to view active, future, or past members or search for members. The list includes information about the position and term dates of each member, with a link to each member's profile or account page.

Position

The committee positions allow you to define the particular or appropriate standing within the committee for each individual member.

Terms

Depending on the committee, each position or membership on the committee might be term-limited. Use the Term Start and Term End dates to specify the length of a term. If there are no terms associated with the membership or position, you can leave the dates blank.

**Using a community**

Here are the basics you need to start using Communities:

- **Opting Out**: When someone *subscribes* you to a community, you are signed up to get email notifications when community announcements are posted. You can *opt out* of these emails by clicking the **Unsubscribe** links for the community, the announcements, or any specific area of the community from which you don't want updates.
- **Opting In**: When new content is created, you can *opt in* to get those updates. You can subscribe to any discussions, discussion topics, wikis, blogs, and blog entries that interest you. Pick the granularity that suits you: you can choose to get updates from an entire discussion *or* just from a single, relevant topic. Subscribing means that you will follow all comments that follow from the original post.

To set your preferences

You can follow individual discussions in communities without subscribing. However, subscribing to a community ensures you do not miss any important updates.

1. Go to **Community > Manage my communities preferences**.
2. A list of the communities you are following display.

   **Note:** If the subscription list is too long for you to easily find items, click the header labels to sort the columns (each click toggles between ascending/descending order).

3. Use the **Stop Following** link to leave any communities or content areas (discussions, blogs, etc.) that you do not want to follow.

> **Note:** Even if you hate email, stay subscribed at the community level so that you get critical announcements from the administrators.

To subscribe to a new community

1. Go to **Community > Moderate communities.**
2. Select the name link of the community you want to follow.
3. Click **Follow Community** to start receiving announcements for that community.
4. Browse through the content areas (blogs, discussions, wikis) and use the **subscribe** link below each content area to follow updates to those areas that interest you.

To create a post

A post can be a reply, comment, blog entry, discussion topic, or wiki page, as your permissions allow.

1. If you are allowed to create content in the area, you will see an **Add** link.
2. Click **Add** and enter a title or subject and text for the body of the post.
3. If available and needed, click **attachments** to add a file (which is stored in the Document System).
4. Click **Save**

> **Note:** When adding an unsecure PDF, TXT, RTF, DOC or HTML attachment the content of the file will be searchable after Java is installed.

To report inappropriate content

Community administrators can fix and even remove objectionable content throughout the community, but only if members alert them to the situation. Whenever you see problems with content in the community, use the **report** feature to help your administrators deal promptly with the problem.

1. While viewing the post or comment, click the **report** link. The **Report Inappropriate Content** window appears.
2. Enter an **Explanation** with reasons for reporting the post or comment.
3. Click **Send**.
4. Once you see the message that your report has been sent, click **Close**.

All of your community administrators receive the email about the inappropriate content, which improves how quickly the team can respond to the problem.

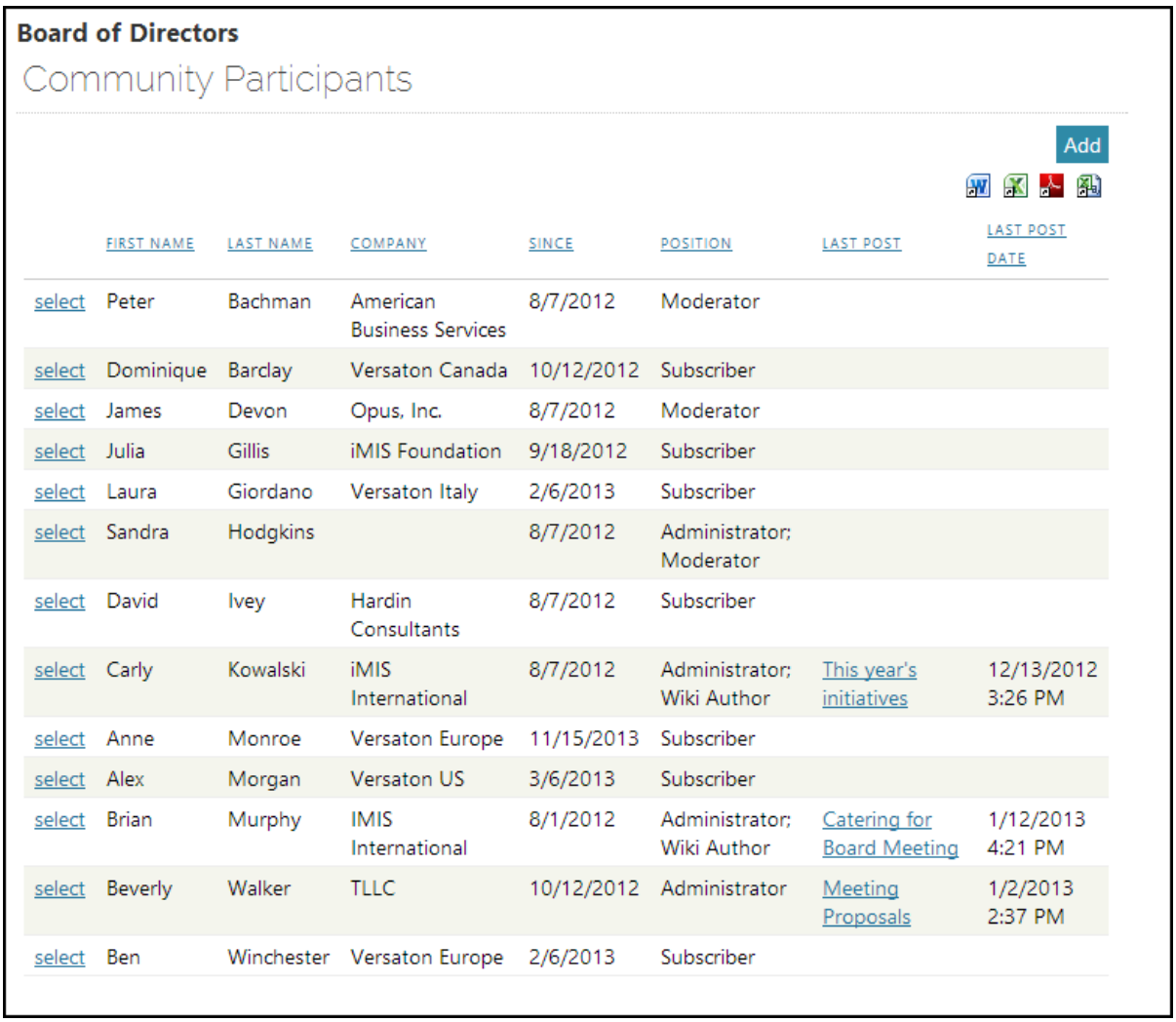
To view community subscribers

The participant list is a list of all subscribers to the community itself. The **Position** column lists the security role of each member. Most will be **Subscriber**; a few will be **Administrator**, **Moderator**, or **Wiki Author**.

1. Go to **Community > Moderate communities.**
2. Open the community from the **Communities** list.
3. Click the **Participants** link in the left navigation to view the expanded list of community members.

> **Note:** Click a column heading to sort by that column.

Click to view image



**Board of Directors**

Community Participants

Add

| | FIRST NAME | LAST NAME | COMPANY | SINCE | POSITION | LAST POST | LAST POST DATE |
|---|---|---|---|---|---|---|---|
| select | Peter | Bachman | American Business Services | 8/7/2012 | Moderator | | |
| select | Dominique | Barclay | Versaton Canada | 10/12/2012 | Subscriber | | |
| select | James | Devon | Opus, Inc. | 8/7/2012 | Moderator | | |
| select | Julia | Gillis | iMIS Foundation | 9/18/2012 | Subscriber | | |
| select | Laura | Giordano | Versaton Italy | 2/6/2013 | Subscriber | | |
| select | Sandra | Hodgkins | | 8/7/2012 | Administrator; Moderator | | |
| select | David | Ivey | Hardin Consultants | 8/7/2012 | Subscriber | | |
| select | Carly | Kowalski | iMIS International | 8/7/2012 | Administrator; Wiki Author | This year's initiatives | 12/13/2012 3:26 PM |
| select | Anne | Monroe | Versaton Europe | 11/15/2013 | Subscriber | | |
| select | Alex | Morgan | Versaton US | 3/6/2013 | Subscriber | | |
| select | Brian | Murphy | IMIS International | 8/1/2012 | Administrator; Wiki Author | Catering for Board Meeting | 1/12/2013 4:21 PM |
| select | Beverly | Walker | TLLC | 10/12/2012 | Administrator | Meeting Proposals | 1/2/2013 2:37 PM |
| select | Ben | Winchester | Versaton Europe | 2/6/2013 | Subscriber | | |

To stop following a community

Members can select stop following in order to be removed from the community's participant list.

To remove a member from a community

Staff members with administrative privileges can select a member's record and select remove in order to remove a specific member from the community's participant list.

### Creating your blog

Create a blog to publish periodic entries on a particular topic. Your blog entries appear chronologically, with your newest entries topping the list. Blogs serve as collections over

time, and the topics can be as serious as reports or as casual as personal online journals. Blogs accept comments, so that readers can respond to the entry and to each other.

To define a blog

1. Go to C**ommunity > Moderate communities.**
2. Open the community from the **Communities** list.
3. Select **Blogs** from the navigation links.
4. Click **Add** new blog.
5. Define the blog.

   **Note:** Even if you do not enable Allow HTML in posts in the blog, URLs in blog entries still convert to links.

6. Click **OK**.

**Creating a wiki**

Add a wiki to create a group authoring area on the website, for a shared writing project, or knowledge base. Wikis are web pages that are grouped by subject, such as Policies and Procedures. They enable quick, collaborative development by allowing more than one author to add and edit articles. Subscriptions aid members in keeping up with changes to a single wiki page or the entire wiki.

Moderating wikis without restricted authoring

Keeping wiki authorship open to all members is best in terms of maximizing contribution, participation, and inclusion of others. If your organization has concerns about incorrect or inappropriate information making it into a wiki, see if moderation by administrators cannot give you the protection you need, as they have the power to correct and delete such content.

If you choose to use moderators for your wiki, be sure that those individuals subscribe to the specific wikis in question, so that they will be notified of all page submissions and can respond promptly.

To create a wiki

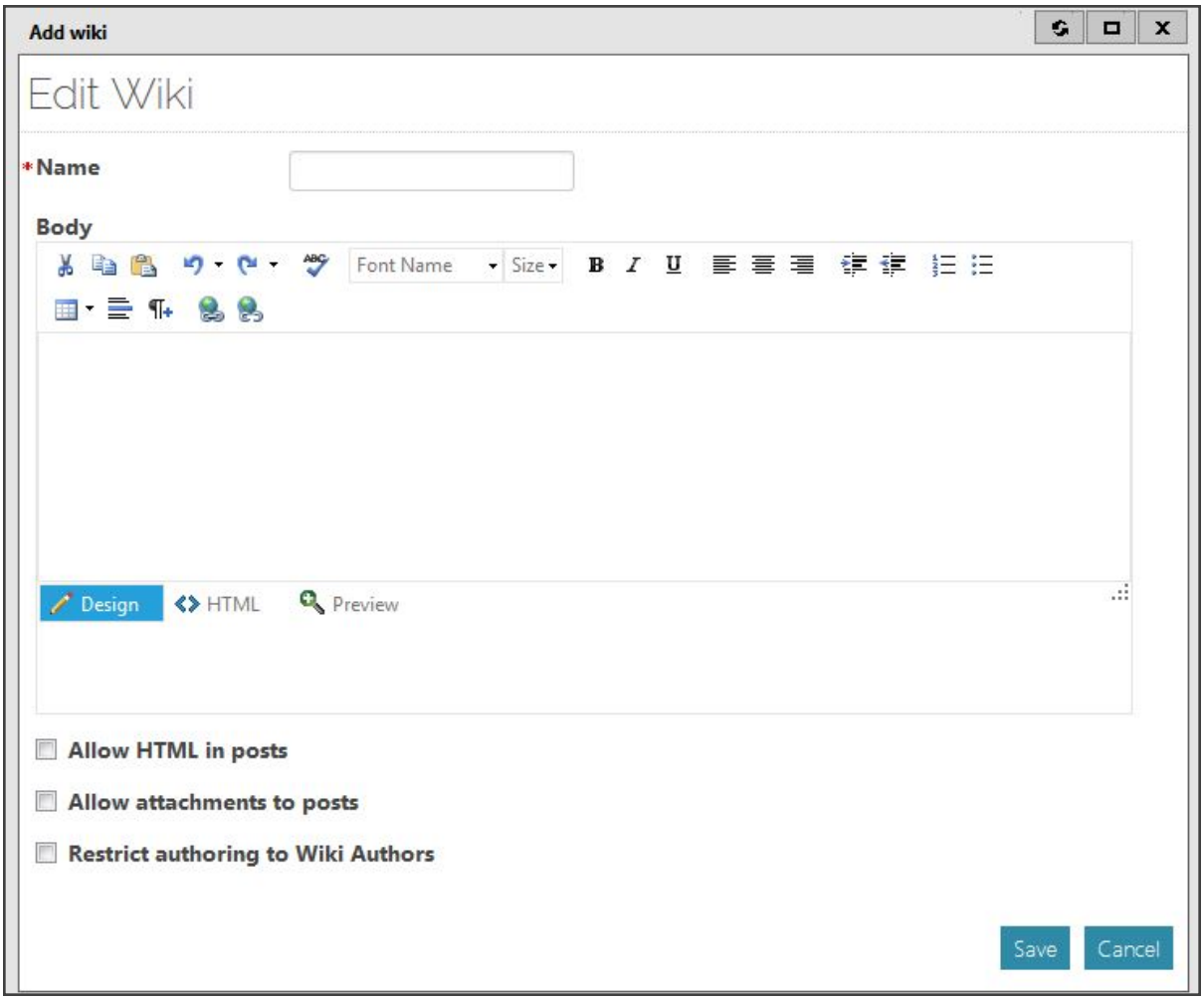
1. Go to **Community > Moderate communities.**
2. Open the community from the **Communities** list.

3. Click **Add a wiki**. If you do not see this link, you may need to be assigned as a **Wiki Author** by your community administrator.
4. Define the wiki. If you enable **Restrict authoring to Wiki Authors** but are not yourself a Wiki Author, you will not be able to edit the wiki.
5. Click **OK**.
6. Click **Subscribe** if you want to receive email notifications of all changes to the wiki.

Edit Wiki window

This window defines a collaborative workspace similar to a wiki where community members can create and share articles with the community.

Click to view image




Select community link > Add a wiki

- **Name** – Specifies the name of the wiki.
- **Body** – Specifies a description for the wiki, which is listed on the Community home page. If you find some features of the HTML editor confusing, you can download user documentation for the editor.

> **Note:** Some features described in this external document have not been enabled for use when defining communities.

> **Warning!**
>
> If you use the HTML editor's built-in **Image Editor** to modify an image that has a transparent background, the transparent background will be replaced by solid black pixels. If you need to edit images that have a transparent background, you should save a copy of the image to your local computer and use your preferred image-editing program to modify it. Then upload the new version to iMIS again, overwriting the old version if desired.

- **Allow HTML in posts** – Select this checkbox to enable the HTML editor so that wiki articles can have HTML in each. If this checkbox is cleared, you enter plain text when creating articles. When you enter a URL, iMIS automatically creates a link within the wiki article, even if this selection is cleared.
- **Allow attachments to posts** – Select this checkbox to enable a poster to attach files separately to a wiki article, such as a PDF document or an image.

## Communities Administration

Community Administrators comprise a team that takes care of developing and maintaining a given community.

### Creating a community

To enable a group in your organization to collaborate, create a community for them consisting of a web page with preselected layouts, which include and position such things as discussions and blogs.

When you finish defining and populating the main structures of the community (such as its discussions and wikis), you are ready to change the security settings to allow members to see and use the community you created.

> **Note:** Note: Only members of the SysAdmin security role are able to create a community.

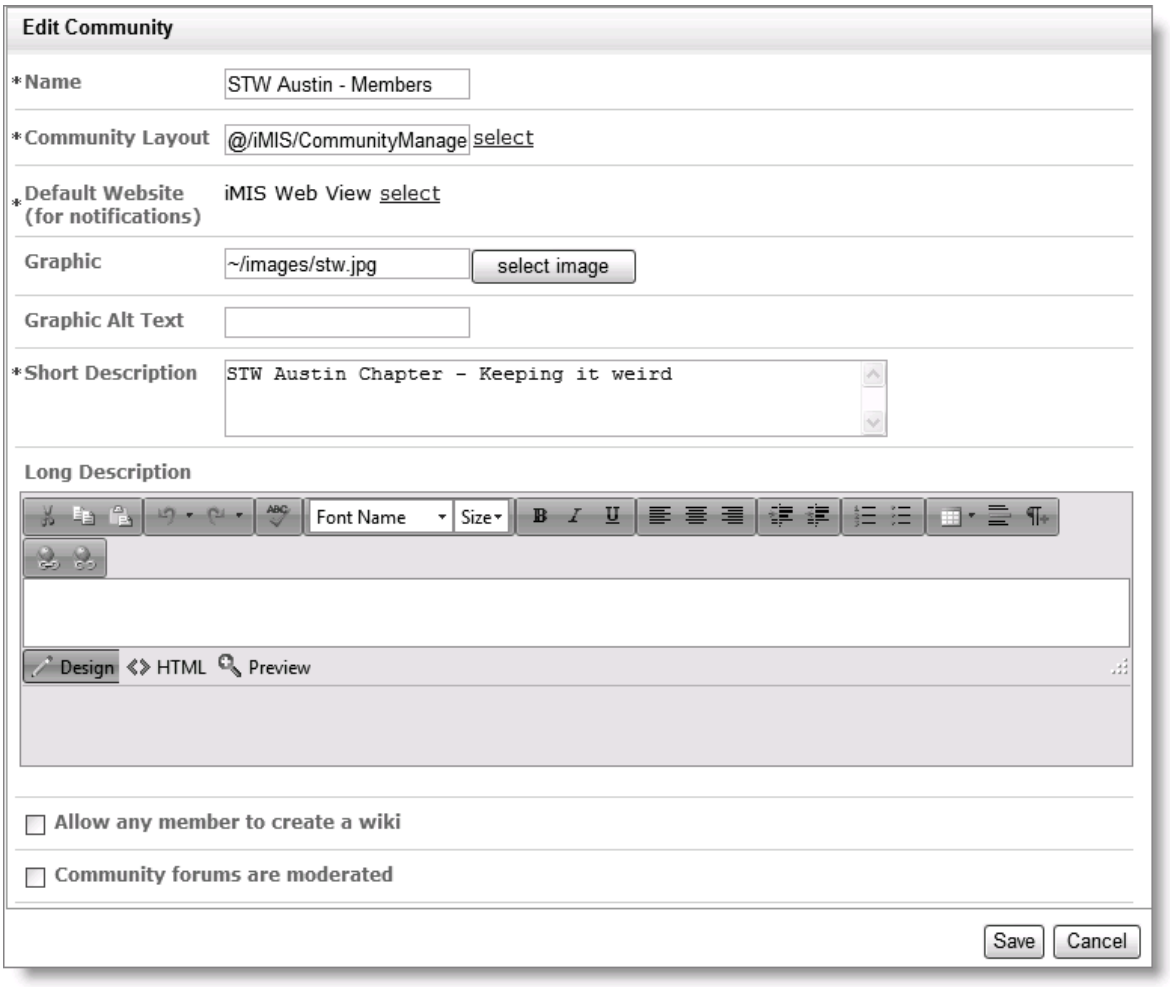
To start a community

1. Go to **Community > Moderate communities.**
2. Click Add a Community.
3. Define the community using the fields described below and click **Save**.
4. Select the community from the **Communities** list.
5. Create discussions that the members will need.
6. Open the **Security** link at left and set the **Access Settings** for the community.
7. On the other **Security** tabs, add members to the various community roles.
8. Open the **Participants** link and bulk-add members to the community, which subscribes them to receive community announcements.

Edit Community window

This window defines a community and the graphic that represents the community. **Communities > Community List > Add a community** or click the **Edit** link while viewing the community page.

Click to view image




- **Name** – Specifies the name of the community that is displayed on the web and in email messages sent to subscribers.
- **Community Layout** – Specifies the content record for the community, which uses a selected layout.
- **Default Website** – Specifies the website as defined in **Content Management > Site Builder > Manage websites**. The website must be published (not in a **Working status**). This setting indicates the website users will see when clicking a link included in a subscription notification or in a "report this post" message. The default website should be a website that is accessible to all subscribers of the community. Also, do not select the **iMIS Desktop View** as the default website.
- **Graphic** – Specifies the image file displayed when readers view the Community on the web.

- **Graphic Alt Text** – Specifies the alternative text that appears when the image cannot be displayed or when you hover your mouse over the graphic.
- **Short Description** – Specifies a short description of the community and its purpose in one or two sentences. No HTML coding or CSS styling is enabled in the short description.
- **Long Description** – Specifies a longer description of the community and allows HTML coding or CSS styling. This description appears in the side bar on the Community main page. If you find some features of the HTML editor confusing, you can download user documentation for the editor.
- **Note:** Note: Some features described in this external document have not been enabled for use when defining communities.

  **Warning!**

  Caution! If you use the HTML editor's built-in **Image Editor** to modify an image that has a transparent background, the transparent background will be replaced by solid black pixels. If you need to edit images that have a transparent background, you should save a copy of the image to your local computer and use your preferred image-editing program to modify it. After you have edited the image locally, upload the new version to iMIS again, overwriting the old version if desired.

- **Allow any member to create a wiki** – (disabled by default) Permits all authenticated users to create wikis, regardless of their community role.
- **Community discussions are moderated** – (disabled by default) Forces every discussion on the community to be subject to moderation, which means that community posts cannot publish until a moderator or administrator approves them.

  Enabling discussion moderation

  Discussion moderation — that is, keeping a discussion posting in queue until a moderator approves (or rejects) it for publication — is sought by organizations that feel urgency to prevent erroneous, inappropriate, or damaging content from being distributed under their name, so much so that removing such postings and posters after the fact is not good enough. Such organizations are often

- new to social media and reluctant to host discussions at all
- in health care, for which misinformation incurs liability
- involved in industry arbitration, where disgruntled individuals seek to hijack channels for their own ends

  Best practices: Controlling discussion postings

  Whenever possible, decide against controlling discussion postings on the front end. Enabling this approval workflow creates extra work for moderators, and members experience frustrating delays in seeing their postings broadcast and in getting input or help they may be seeking.

  Are you without any control, then? Not at all.

- Be sure to post discussion use policies that make clear your rules for content and behavior as well as the consequences for violation (such as two warnings and then permanent removal from the community).
- Direct your moderators to post warnings, delete inappropriate postings, and have offenders removed from the community, according to your policies. This goes far to covering your accountability.

To enable discussion moderation

If your organization cannot allow any inappropriate postings ever getting through to members and subscribers, even temporarily, you can enable moderation on your discussions. This moderation prevents postings from appearing until a discussion moderator approves it.

> **Note:** Note: Discussion moderation is community-wide: either all discussions are moderated, or none.

1. Log on as an administrator.
2. From the **Communities** list, click **edit** for the community whose discussions need moderation.
3. Scroll to the bottom and enable **Community forums are moderated** and click **Save**.
4. Open the community and go to **Security**.

5. Open the **Community Moderators** tab and add members to the moderation role, to help manage the additional work of a discussion post pre-screening.

### Creating announcements

Use announcements when you have news to broadcast to the entire community of members. Think of announcements as discussion topics that are read-only, with no replies allowed. These new items display in the **Announcements** area of the Community portal and are delivered as emails to all community subscribers.

1. Log on as a Community Administrator.
2. Open the community where you want to define an announcement.
3. Click **Add an announcement**.
4. Define the announcement.
5. Click **Save**.

### Defining community membership and subscriptions

While all contacts (Full, Casual, and Public users) are members of your community (unless it was restricted), they do not receive content updates until they are subscribers. To get your community moving quickly, you can bulk-subscribe members to receive community content by selecting their iMIS contact records and adding them to the community participants.

To grant member-level access to a Community

1. Log on as a member of the SysAdmin security role.
2. Open the community from the **Communities** list.
3. Click the **Security** link in the left-hand navigation area.
4. Select the **Access Settings** tab.
5. Select **Make this available to** and then click the **Specific Users** drop-down arrow.
6. Select **Add user**.
7. Find the user and click **OK** to add the member to the community.

To grant administrator-level access to a Community

1. Log on as a member of the SysAdmin security role.
2. Open the community from the **Communities** list.
3. Click the **Security** link in the left-hand navigation area.
4. Select the **Community Administrators** tab.

5. Find the user.
6. Click **Add** to add a person as a community administrator.

To add subscribers to a community through the Participant List (Administrator)

Contact records are members of unsecured communities even if they have subscribed to only one discussion or to nothing at all in the community. However, when you add a contact to the Community Participants, you automatically make them subscribers to all updates from the community.

1. On the **Community** page, click the **Participants** link in the left-hand navigation area.
2. The Community Participant List appears.
3. Click **Add**.
4. Find the contact.
5. Select a name from the list or click the checkbox in the far left column to select all names in the page.
6. Click **OK** to add the selected members to the **Community Participant** list.
   All added members are subscribed to the community for notifications and participant list displays all the new additions.

Tips for adding multiple contacts

- You gain multi-selection capability when you click Participants in the left-hand navigation. When subscribing people, you select one record at a time.
- You may want to modify the search query used to generate the list of results when adding contacts, so that you can select all members of a committee, or all constituents in a State or Province, for example.
- What users see may be modified by their privileges in the **Access Settings** for the Community. Refer to Preconfigured security sets, for object-level access for information about preconfigured security sets. For example, you can choose one of the Authenticated Users security sets to require people to logon to the website before using a community.
- There are three types of community membership: **member**, **subscriber**, and **administrator**.
- **A member has access to the community, but may or may not be subscribed to any notifications.**
- A **subscriber** receives notifications and appears on the Community Participant List.

- An **administrator** has access to the community, gets notifications when someone reports a post or comment, and can delete posts or comments.

### Creating a discussion

You create discussion to enable discussion on topics related to the community's interests. Only community administrators and SysAdmins can add discussions.

1. Log on as Community Administrator and open the community from the **Communities** list.
2. Select **Discussions** and click **Add discussion forum**.

> **Note:** If you do not see the **Add a Discussion** link, verify that you are an administrator on the community.

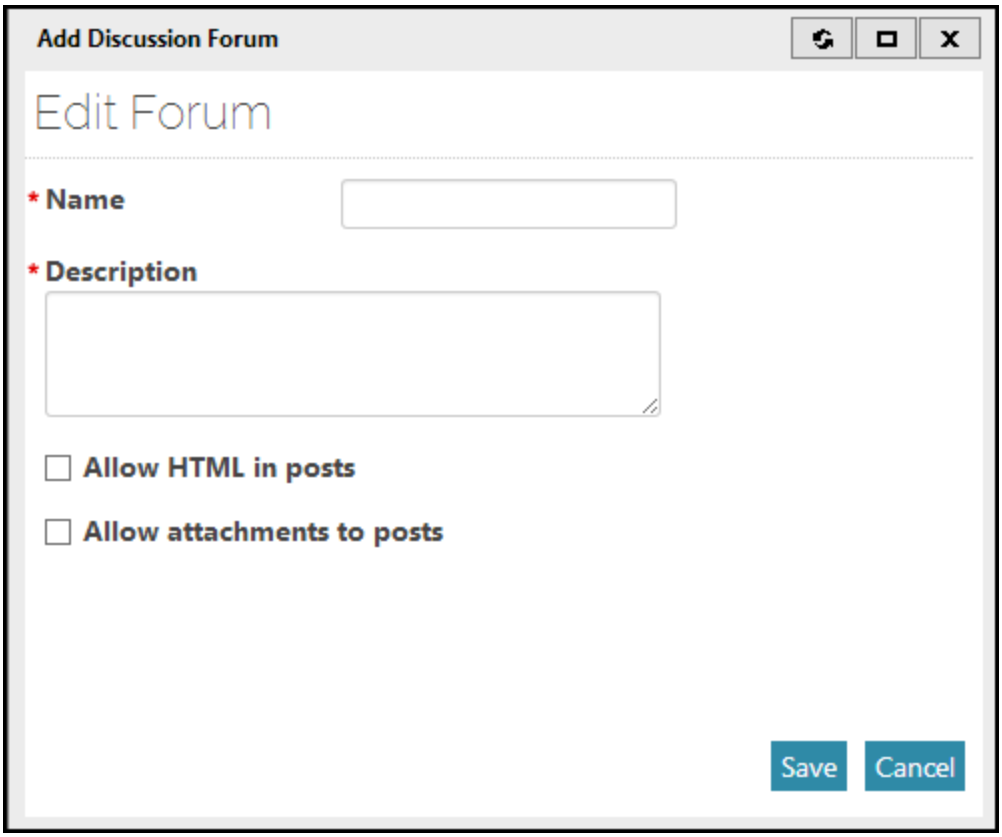
3. Define the discussion.

- **Allow HTML in posts** – Select this checkbox to enable the HTML editor so that discussion posts can have HTML in each. If this checkbox is cleared, you enter plain text when creating posts. When you enter a URL, iMIS automatically creates a link within the post, even if this selection is cleared.
- **Allow attachments to posts** – Select this checkbox to enable a poster to attach files separately to a discussion topic, such as a PDF document or an image.

4. Click **Save**.

### Moderating a discussion

Serving as a moderator helps to distribute the load of monitoring the activity of your community's discussions and wikis. Moderators have privileges beyond those of regular community subscribers, including the ability to see who is subscribed to a specific discussion.




To verify your moderator status

1. Log into the site, select **Communities**, and open your community.
2. On the community **Home** page, locate the **Community Participant List** and look for your name.
3. If you do not appear as a **Moderator** or **Administrator**, have an administrator change your community role (under **Security**) so that you can proceed.

To view discussion subscribers

Moderators can see which members are subscribing to a given discussion. Seeing this list of participants allows moderators to evaluate the constituency (are these our experienced members or our newer ones? are any experts subscribed and contributing to the discussion?) and the success of the discussion (should I take action to get other members subscribed?). Monitoring discussion subscriptions helps you understand which topics are of most interest to members and where changes might be needed.

1. Open the discussion you are interested in by clicking on its title.
2. Locate the **Subscribers** box under the **Recent Posts** (usually at right).

3. Seeing the subscribers to a discussion in real time gives you valuable management information, but you can do more with those subscriber lists. Use the export commands (Word, Excel, Acrobat PDF, CSV data) as needed to capture the subscriber information for other uses:

- Snapshot the subscriber information over time, for activity analysis by community administrators
- Timestamp the export files, for easy management and future reference
- Share your archives of subscriber data, to help you hand off duties to the new volunteer discussion moderator
- Export the subscriber data for quick mail merges, badge printing, or other service tasks by Public users

To approve discussion postings

Being a moderator for a moderated discussion goes beyond deleting inappropriate content that gets posted: you are a gatekeeper that approves (or rejects) discussion posts before they ever show up on the discussion. Email notifications will alert you when there are new posts waiting for approval.

1. Study the content standards and the action policies of your community, which should specify what content should not be allowed to post and what to do about it.

> **Note:** Tip: Policies are *critical*; fights over moderation can poison discussions. If these policies aren't published on the community for the members to follow, insist that your community administrators do so, to avoid future conflicts.

2. Subscribe to every discussion so that you get email notifications about new content publications.
3. When you get an email that a posting was published, click through the link in the email, log on, and view the discussion.
4. Since new postings can trigger quick responses, scan for new replies.

Click to view image




5. When you find a posting needing approval, open it and scan the body of the posting for inappropriate content (according to your community's policies).
6. Select either **approve** or **decline** as appropriate.
7. While you are logged in, open any additional discussions you moderate.

> **Note:** Select **Home** at left, and scan the summary view of the discussions for topics that are **awaiting approval**, and tend to those.

### Adding moderators and wiki authors

If your organization cannot allow incorrect or inappropriate information making it into a discussion or wiki, even temporarily, you can apply discussion moderation and wiki authoring restrictions. Having done that, you should grant **Community Moderator** and **Community Wiki Author** roles to specific members to help develop and manage the content in those restricted areas.

To add moderators and wiki authors

1. Log on as an administrator.
2. Open the target community and select **Security**, at left.
3. Select the **Community Moderators** tab.
4. Use the **Source** box to find members (only those not subscribed to the community).
5. Select **Add** for each member who is joining the moderator role.
6. Click **Save** before leaving the security tabs.
7. Repeat on the **Community Wiki Authors** tab, as needed.

To restrict a wiki to wiki authors

To limit authoring privileges on a wiki to a select group in your organization, you must

- edit the wiki and enable **Restrict authoring to Wiki Authors**
- add **Wiki Authors** to your community security (or else only administrators can change the wiki)

To enable discussion moderation

To prevent posts from appearing on discussions until they are approved, you must

- edit the community and enable **Community discussions are moderated**
- add **Moderators** to your community security (or else only administrators can approve posts)

See Enabling discussion moderation for best practices.

**Removing inappropriate posts**

Moderating community posts and comments is a job shared by all administrators of a community, to ensure speedy response to problems. Administrators get email notifications when posts and comments are reported as inappropriate, and they have the power to delete such content as needed.

To remove an inappropriate post or comment

1. When you receive an email indicating someone has reported a post or comment, read the content (which is copied into the email) for inappropriateness.
2. If the content seems inappropriate, click the link to go to it on the website, which opens in your default web browser.
3. Click the **edit** link on the post and remove the offending portion, or click the **delete** link to remove the post entirely.

   **Note:** If you cannot see the **delete** link, make sure that you are logged on as a moderator.

4. Confirm by clicking **OK** on the resulting dialog box.
5. If you deleted a post erroneously, contact an iMIS SysAdmin have it restored.

To restore a post (SysAdmin)

You can restore deleted posts by reverting them in the Document System. Be aware that reverting a post reverts only the selected post; any comments on the post must be individually selected and reverted if you want to also revert comments on a deleted post.

1. Logged in as a SysAdmin, go to **RiSE > Document System**.
2. Click the **Recycle Bin**, and then select the post you want to restore.
3. Click **Versions**.
4. Select the post version that you want to restore.

> **Note:** If you see an error, the reported post might have been deleted by another administrator.

5. Click **Revert**.
6. Confirm by clicking **OK**.

### Deleting a discussion, blog, or wiki

Delete community areas carefully: although you can restore content after deletion, it is not convenient.

For example, each blog entry is its own document available in the Document System. You see the blog, all of its entries, and all of the entries' comments as individual items in the Recycle Bin in Document System. By selecting the item and clicking **Versions**, you can then select the version that you want to restore and click **Revert**.

> **Note:** Note: Reverting one object does not revert its dependents: you must restore each object individually, by reverting to a previous version.

1. Log on as a user with a SysAdmin security role.
2. Click the **delete** link for the item you want to delete.
3. Click **OK** in the resulting dialog box.

### Managing resource libraries

To upload resource library files (Administrator)

1. Log on as a user with Administrator privileges.
2. Open the community from the **Communities** list.
3. Under **Resource Library**, click **New** and then select the type of file you want to upload.
4. Select the file to upload and click **Upload**.

Tips

The following information can be helpful when managing document libraries.

- You create resource libraries or document attachment collections when you want to gather resources into one location for the community to have access to. Anyone can download files from the Resource Library but only administrators can use the **Organize**, **New**, **Edit**, and **Versions** menus.
- You can upload the configured file types to a document library as described in Managing attachments and uploads.
- A document library may contain policies, meeting minutes, or any document that does not fit a discussion, blog, or wiki content model.
- You can view the Description by selecting the file and then clicking **Organize > Properties**.

Troubleshooting

- If people have trouble uploading files, check both the file type and the maximum file size. If you need to adjust the maximum file size limit, refer to Managing attachments and uploads for more information.
- Users working in the resource library on an iPhone, iPad, or Android cannot Download files. They can, however, Preview files on their devices.

## Communities Implementation

Implementing Communities for optimal use requires the actions of an iMIS SysAdmin. During implementation, SysAdmins can

- hide Communities during implementation and then roll it out, using **Access Settings**
- customize the email notification template
- manage community attachments and uploads
- assign community administrators to their respective communities, to take it from there

**Getting started: community management**

Community management refers to the process of defining, organizing, and moderating portals that contain a file repository, blogs, discussions, or collaborative workspaces like wikis. Community management comprises the following activities:

- Defining communities and their resource libraries, blogs, discussions, or wikis
- Defining community display, navigation, and structure
- Moderating membership and conversations
- Defining notifications

- Defining security and access
- Managing document attachments

Who depends on this?

Your community management activities must be completed before members can view or post to discussions, blogs, resource libraries, or wikis.

What must be done before you can start?

You cannot perform some community management tasks until after a Community has been created in iMIS.

Putting it all together

Community management comprises two general workflows:

- The process of defining communities entails the following actions, which must be performed in the order shown:

1. Define a community. By default, a Community contains content items that enable addition of discussions, blogs, wikis, announcements, and items in a resource library.
2. Define the layout of the community's parts.
3. Define notifications for the community.
4. Manage the community participants and subscriptions.
5. (optional) Manage limitations and definitions for file attachments.

- The process of community maintenance entails the following actions, performed as needed:
- Manage security
- Moderate conversations
- Troubleshoot communities

Types of user privileges

There are three system-defined security groups that affect user privileges relevant to managing communities.

- **Content Administrator**: member of a MasterAdmin Content Authority Group (CAG).
- **Community User**: A user who views or contributes to or authors community documents such as blogs, libraries, or discussions, and may own a community document.

- **Community Administrator**: A user with the ability to set up communities and edit Community permissions.  Belonging to this security group gives the user the ability to edit or delete community documents, regardless of the document's owner.

**Understanding community permissions**

The roles you assign to users control what they can do in blogs, wikis, and dicussions, as follows. Access settings are defined in the Community Security window.

> **Note:** Note: Granting a user, group or role ANY level of access to the community (even "Read") gives the user, group or role the ability to view the community and the ability to create posts and edit their own posts.

Click to view table

| Enables | *Community Administrator* | *Content creator (includes community wiki authors for wikis also)* | *Subscriber* |
|---|---|---|---|
| **Discussions** | | | |
| Create or delete a discussion | x | | |
| Edit discussion | x | | |
| Edit discussion topic | x | x | |
| Create or delete a discussion topic | x | x | x |
| Edit a discussion topic | x | x | |
| Reply to a discussion topic | | x | x |
| Edit a reply | x | x | |

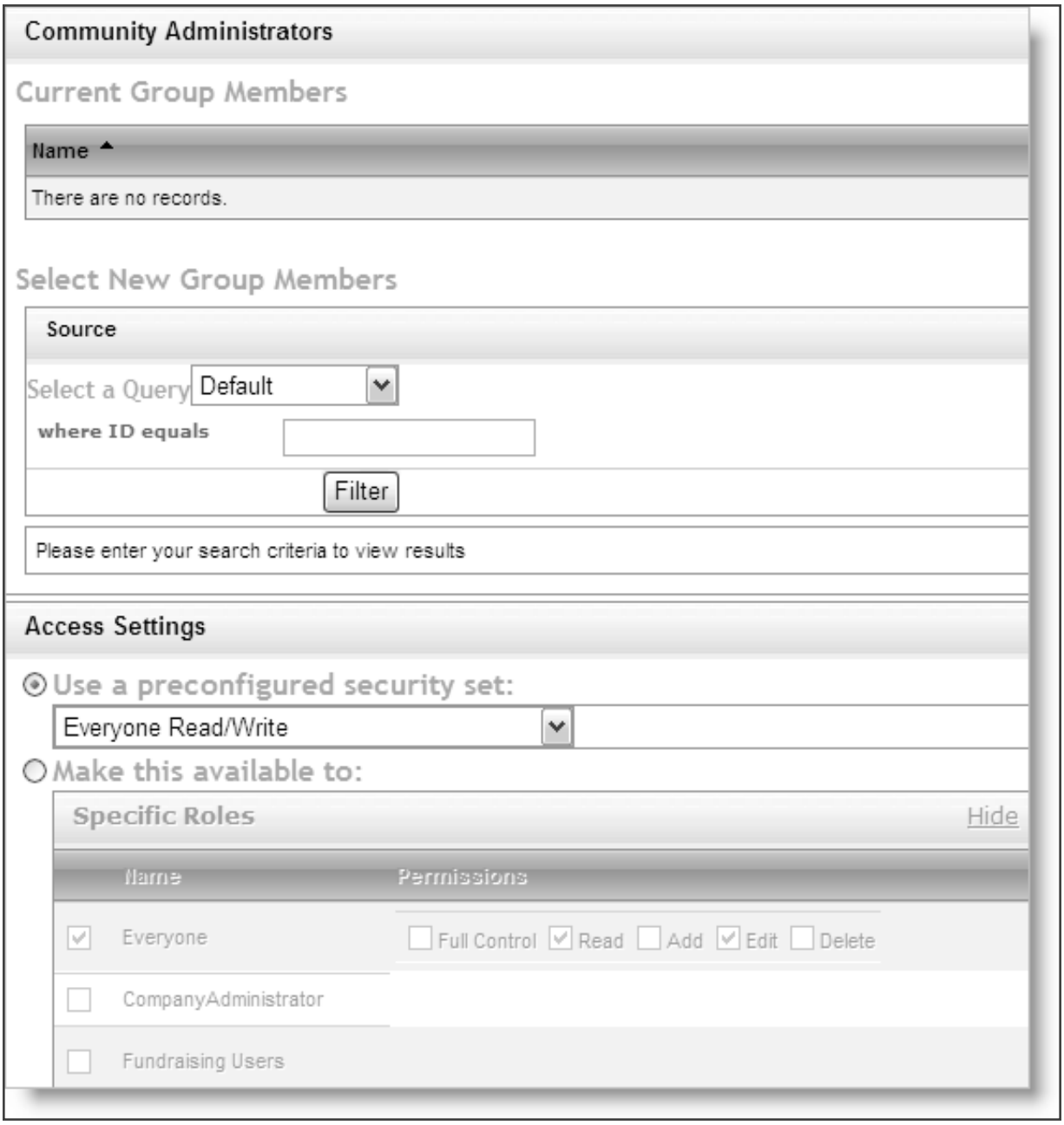
| | | | |
|---|---|---|---|
| Delete a reply | x | x | |
| **Blogs** | | | |
| Create blog | x | x | x |
| Delete blog | x | x | x |
| Edit blog | x | x | x |
| Create or delete blog entry | x | x | |
| Edit blog entry | x | x | |
| Comment on a blog entry | x | x | x |
| Edit or delete a comment | x | You must be an Admin to edit/delete comments on your entry. | |
| **Wikis** | | | |
| Create or delete wiki | x | x | |
| Edit wiki | x | x | x |
| Create wiki article | x | x | x |
| Delete wiki article | x | x | |
| Edit wiki article | x | x | x |

### Community Security window

This window defines access settings to control access to the community plus indicates which members are community administrators.

Click to view image

Click a link to a specific community, and then click **Security** .




Community Administrators

This area specifies selection of community administrators.

- **Current Group Members** – Lists the community administrators who have been added to the list. This list does not specifically display iMIS SysAdmin even though people with SysAdmin privileges appear on the community participant list as Administrators.

- **Select New Group Members** – Specifies the search criteria for adding new community administrators.

Access Settings

This area specifies the access settings to the community based either on a preconfigured security set or specific roles, groups, or users.

- **Use a preconfigured security set** – Specifies a set of permissions for accessing objects. Each security set contains a predefined access list and permissions (**Full Control**, **Read**, **Add**, **Delete**, **Edit**) that remain constant. Refer to Preconfigured security sets, for object-level access for information about preconfigured security sets.
- **Make this available to** – Specifies the **Specific Roles**, **Specific Groups**, or **Specific Users** that may have access to the community.

> **Note:** Note: Granting a user, group or role ANY level of access to the community (even "Read") gives the user, group or role the ability to view the community and the ability to create posts and edit their own posts.

**Defining email notifications**

To define the email notification address

1. On the appserver, open each iMIS-related **web.config** file for editing. Its default location is asiPlatform\Asi.Scheduler_iMIS.
2. Edit this line to change the **from** attribute on the **smtp** element to the email address you'd like notifications to come from, and ensure your smtp server is properly named in the **host** attribute:

```
<mailSettings>
<smtp deliveryMethod="network" from="myorg@myorg.com">
<network host="smtp-server.myorg.local" port="25" defaultCredentials="true"/>
</smtp>
</mailSettings>
```

3. Save the **web.config** file.
4. In IIS Manager, restart **AsiSchedulerPool**.
5. Repeat this process for each iMIS appserver that hosts communities.

To define the email notification message

1. From the Desktop, select **System Setup > Set up web components > Email Templates**.
2. Change the default templates as you see fit. You can change the subject line, the body, and the footer of the notification email message. You can only change text that is not inside of square brackets.

   **Note:** Text inside of square brackets **[ ]** indicates a variable that changes with each message that is sent.

3. Click **Save**.
4. In IIS Manager, stop **AsiSchedulerPool**, then restart **AsiSchedulerPool**.
5. Restart IIS on the server (if your public website is installed on a separate web server) when you have made any modifications to the community notification email templates.

Tips

- When a Community Administrator has not yet been selected, notification emails are sent to every user with the SysAdmin role.
- For community subscribers, notifications are sent when someone adds or updates a post (blog entry, discussion post, or wiki article) or comment on any of those items.
- By default, full text of the post or comment is included in the email message to subscribers.
- Any post included in the notification is marked as read by the subscriber.
- iMIS sends a message to the address specified in the **web.config** file as well as adds the designated email address to the from line because it only sends one e-mail per update and the blind carbon copy (BCC) line contains all of the recipients' email address. This design is more efficient for your mail server than sending out single email messages.
- For problems with emails, see email output not being sent or received in the Installation Guide.

  **Note:** If you are not receiving community email notifications, make sure that the **URL(s) pointing to the IIS website root** and **Secure URL(s) pointing to the IIS website root fields** (**Manage websites > Properties** tab) contain valid URLs for each of your websites. If you make any changes, be sure to restart the AsiScheduler.

### Managing attachments and uploads

To configure the allowable file types

1. On the appserver, open each iMIS-related **web.config** file for editing.
   - iMIS default location: **C:\Program Files\ASI\iMIS\net**
2. Edit this line to add or remove file types in the value attributes.
   `<add key="Communities.AllowedUploadFileTypes" value-e="DOC,PDF,TXT,HTM,HTML,GIF,JPG,PNG,RTF,ZIP,XML"/>`
3. Refer to the list of the allowable file types that are specified in the **web.config** file entry.
4. Save the **web.config** file.
5. Repeat this process for each iMIS appserver that hosts communities where you want to change the allowable file types.

Click to view table

| File Extension | File Type |
|---|---|
| AVI | Audio Visual Interleave |
| BMP | Microsoft device independent bitmap |
| DOC | Microsoft Word Document |
| EML | Outlook Express Electronic Mail |
| FLV | Flash Video File |
| GIF | GIF Image |
| HTM | HTML Page |
| HTML | HTML Page |
| JPE | JPEG Image |
| JPEG | JPEG Image |
| JPG | JPEG Image |
| MOV | QuickTime Movie |

| | |
|---|---|
| MP3 | MP3 Audio |
| MPG | MPEG Movie |
| PDF | Adobe PDF File |
| PNG | PNG Image |
| PPT | Microsoft PowerPoint Presentation |
| RA | Real Audio File |
| RAM | Real Audio File |
| RPT | Crystal Report Template |
| RST | SSRS Template |
| RTF | RTF (Rich Text Format) File |
| TIF | TIFF Image |
| TIFF | TIFF Image |
| TXT | Text File |
| WAV | WAV Audio File |
| WMV | Windows Media File |
| WPD | Word Perfect Document |
| WRI | Windows Write Document |
| XLS | Microsoft Excel Workbook |
| XML | XML File |
| ZIP | Zip File |

To increase maximum upload file size

If your typical uploaded file size in your Resource Library or blog entries for example are larger than 100 MB, you can increase the maximum file size in **web.config** files associated with iMIS.

1. On the appserver, open each iMIS-related **web.config** file for editing.
1. iMIS default location: ~\ASI\iMIS\net
2. Locate the `<httpRuntime>` element and modify the `maxRequestLength` attribute.
   `<httpRuntime executionTimeout="3600" maxRequestLength="10240" />`
3. Locate the `<requestfiltering>` element and modify the `maxAllowedContentLength` attribute.
   `<requestLimits maxAllowedContentLength="10485760" />`
4. Save the **web.config** file.
5. Repeat this process for each iMIS appserver that hosts communities where you want greater file sizes for attachments.

> **Note:** If you plan to upload files larger than 10MB, you must increase both the `maxRequestLength` and `maxAllowedContentLength` values.

Tips

The following information can be helpful when managing file types.

- The MPE file type is sometimes used for MPG Video, but that file type is already in use for Mail Process Engine in iMIS. Rename *.mpe* files to *.mpg* in order to upload them to Communities.
- When a user attaches an XML file to a post and another user downloads it, the default file-opening behavior varies depending on the browser. In Internet Explorer, the XML file may take over the iMIS session, forcing the user to reconnect to the community through another browser window.

Troubleshooting

- In order to prevent denial of service attacks, if a user tries to upload a file that is greater in size than the maximum allowed for uploads, the **Upload** dialog box displays an error. If users report that the **Upload** dialog box displays an error, check to see if their file exceeds the file size limit.

- Be aware that increasing that value could result in a performance penalty on the web-server if the files being uploaded are too large for the server resources available such as available memory and CPU.
- Users working in the resource library on an iPhone, iPad, or Android cannot **Download** files. They can, however, **Preview** files on their devices.

### Communities Design

You have an advanced set of capabilities available to you, to support the communication and collaboration needs of the groups in your organization. You can

- redesign the layout of your communities (through its templates and themes)
- move and edit community content items
- put community content items into other web pages

**Community display**

A community content record defines the layout of a community's home page. Default community layouts are provided, but you can move the content items on the page and save the modified version to the **Shared Content** folder.

> **Note:** The Community Home page is the only editable Community page. Though Easy Edit provides the ability to edit and Save As for any Community page, the updated versions will not be used in iMIS.

Administrators can always view the Communities list, but you will want to allow non-Administrator users to view the Communities once the display is to your liking.

If you want change the look and feel of a community page, you can do so by:

- Editing the website's definition and selecting different master pages and themes.
- Modifying the selected theme (which affects all websites that share it).
- Reorganizing dynamic content items on an existing or new Community layout.

Community layouts

Four content records with different layouts for your community content items are provided by default.

- The **Community** layout provides one of each type of Community content item in a **TwoColumns50-50** layout.

- The **Community Description** layout has two content items – one is an "About" content item that displays the **Long Description** from the community definition, the second is a **Recent Activity** content item that displays recent posts and comments.
- The **Community Newsfeed** layout has three content items – one is an "Announcements" summary content item, the second is a **Recent Activity** content item that displays recent posts and comments, and the third is a listing of **Blogs** being used by the community.
- The **Community Post Summary** layout displays a **Recent Activity** content item that displays recent posts and comments, an **Announcements** content item in a **SingleColumn** layout, and a **Community Roster** content item in a **TwoColumns50-50** layout.

Content records and content items

A content record is an iMIS definition object which is stored in the Document System. These records specify all the information needed to render a web page. Instead of hand-coding the contents of a web page for your website, you define some basic properties and tags for the content record, choose a content layout, add various content items to the content item zones in the layout, and then define the properties for each content item. After the content record has been published to an **.aspx** file on the website, it is available for viewing by web browsers as a complete web page.

A content item is a web widget in the ASP.NET environment. As with any web widget, you choose from different types of content items to insert in the various content item zones in the content layout, then you configure each content item to populate that instance of it with the desired content. You can easily rearrange the rendered page contents by dragging a content item to a different location within the content item zones. A standard set of system-defined content items are available in iMIS, but staff or consultants who are experienced in ASP.NET development can also easily add new content items for use when authoring content.

- The standard content items supplied in the **Content Gallery** all have a corresponding content type, which tells iMIS how to create the corresponding content item within the system, how to edit it, how to display it, how to publish it, and so on.
- New complex content items that you add to your iMIS environment are also listed in the **Content Gallery** and must also have corresponding content types.

- A special ASI-supplied **ContentWebUserControl** content type is used as a generic default content type for all simple content items, or for ad-hoc web user controls that have been manually added to a content record.

> **Note:** The **Communities Content Gallery** will not display without the purchase of the Communities license key.

Defining the display of a community

To upload a graphic or image for the community

1. Log on as a user who is a member of at least one Master Admin CAG or a member of the SysAdmin security role.
2. There are two methods for opening a Community for editing:
   - Select **Community > Moderate communities** and select **edit**.
   - On the Community page, click **Edit** in the left-hand navigation area.
3. Next to **Graphic**, click **Select image**.
4. Select an existing image or upload a file and click **Insert**.

To choose a community layout

1. Log on as a user who is a member of at least one Master Admin CAG or a member of the SysAdmin security role.
2. There are two methods for opening a Community for editing:
   - Select **Community > Moderate communities** and select **edit**.
   - On the Community page, click **Edit** in the left-hand navigation area.
3. Next to **Community Layout**, click **select**. The Document System opens to the **CommunityLayouts** folder (**@/Core Content/ Communities** folder).
4. Select from one of four community layouts, or create your own content record with Community content items, place it in the folder, and select it.
   - The **Community** layout provides one of each type of Community content item in a **TwoColumns50-50** layout.
   - The **Community Description** layout has two content items – one is an "About" content item that displays the **Long Description** from the community definition, the second is a **Recent Activity** content item that displays recent posts and comments.

- The **Community Newsfeed** layout has three content items – one is an "Announcements" summary content item, the second is a **Recent Activity** content item that displays recent posts and comments, and the third is a listing of **Blogs** being used by the community.
- The **Community Post Summary** layout displays a **Recent Activity** content item that displays recent posts and comments, an **Announcements** content item in a **SingleColumn** layout, and a **Community Roster** content item in a **TwoColumns50-50** layout.

5. **Save** the community with the new layout.
6. To view the community with the new layout, click the link to the community.

To reposition a content item on a community

1. Go to the community page.
2. Enable the Edit feature: click the Edit icon on the top right corner.
3. Click the Content Record icon that represents the Communities content record, typically in the upper right hand corner of the record. The Content Record window opens (see Managing content).
4. Click the blue bar of the content item and drag it to another location in the content record. An insertion bar indicates where you are inserting the content item.
5. Release the mouse button to "drop" the content item. The content item relocates to the place where the insertion bar displays.
6. If you want to remove a content item completely, click the downward-facing triangle at the far right of the content item's title bar, then choose **Remove**.
7. Save the content record:
8. 

   **Note:** If you haven't previously saved this Community Layout to **@/Shared Content/Community Layouts**, select **Save As** to save a copy of the content record to that folder. This instruction assumes you have followed the instruction in To prepare to modify a community layout.

9. **Publish** the content record. When you click the link to the community page, your rearranged content items display.

To style the Communities tab

You may modify the CSS to change the style of the Community page and its content items. You can create your own theme, or modify the CSS files located here: **C:\Program**

Files\ASI\iMIS\net\App_Themes\.

Tips

- The arrangement and relationships of the community parts to each other and to the web-site as a whole are important aspects of how the website users will navigate and how your website content is structured.
- Privileges determine what users see, and can be modified.
- Only administrators have access to the management of the image associated with a wiki.

Troubleshooting

- If you decide you want to reverse your changes, you can do so. Every time you publish a content record, the previously published version is saved as an **Archived** version. You can revert to an older archived version by selecting the content record, and then from the toolbar choose **Versions**. In the resulting window, select an archived version and click **Revert**.
- Modifications to your master pages may be required if content items appear to overflow the boundaries of content item zones in the rendered pages. In general, this requires modifying the template's master page and accompanying CSS files to make the Home page and interior page layouts larger than their default size.

**Community content items**

This window lists the available content items used to build community web pages. To see the Communities gallery, you need a Communities license. To create a link to a content record, use a **ContentReference** content item from the **Content Gallery**.

- **Announcement Configuration** – The edit screen for the Announcements discussion
- **Announcements** – Displays the list of announcements for a given community
- **Attachment List** – The rendered list of attachments for a given item
- **Attachment Manager** – Allows controlling the list of attachments for a given item
- **Blog Archive** – A list of blog archive links by month and year
- **Blog Archive Entries** – A list of blog entries belonging to a particular archive set
- **Blog Configuration** – The edit screen for blogs
- **Blog Home** – The "home view" of an individual blog. By default, this 2-column view includes recent activity and archives to the right.
- **Blog List** – A list of blogs for a given community

- **Blog List Item** – A single blog in a blog listing
- **Comment Configuration** – The edit screen for comments
- **Comment List** – A list of comments for a given item
- **Comment List Item** – A single comment in a comment listing
- **Community Breadcrumb** – Displays the path to the current object as a breadcrumb
- **Community Configuration** – The edit screen for a Community
- **Community Description** – Displays the long description for a Community
- **Community List** – The list of all available Communities
- **Community Recent Activity** – Displays recent activity of all types for the entire community, such as new replies on discussion topics, new blog entries, and new wiki articles.
- **Community Roster** – Displays the list of all members (subscribers and administrators) of a community.
- **Community Sidebar Helper** – Helper control that inserts the Community Summary into the template's sidebar.
- **Community Summary** – Displays the item's linked name, image, description, and relevant links.
- **Discussion Forum Configuration** – The edit screen for a discussion
- **Discussion Forum Home** – The "home view" for a discussion. By default, this 2-column view includes recent activity to the right.
- **Discussion Forum List** – The list of discussions for a given community
- **Discussion Forum List Item** – A single discussion in a discussion listing
- **Entry Configuration** – The edit screen for blog entries
- **Entry Home** – The "home view" of an individual blog entry. By default, this 1-column view includes the complete comment thread for the entry.
- **Entry List** – A list of entries for a given blog
- **Entry List Item** – A single entry in an entry listing
- **Image Manager** – Image manager for a community
- **Preferences** – Manages a user's community preferences and subscriptions
- **Recent Activity** – Displays a recent activity in an individual blog or discussion in a particular community.
- **Resource Library** – Displays the Community Resource Library
- **Security** – Manages a community's security.

- **Subscribers list**– Lists subscribers to the current object.
- **Subscription Link** – Allows a user to subscribe to or unsubscribe from a given item.
- **Topic Configuration** – The edit screen for a discussion topic.
- **Topic Home** – The "home view" for a discussion topic. By default, this 1-column view includes the complete reply thread for the topic.
- **Topic List** – A list of topics for a given discussion
- **Topic List Item** – A single topic in a topic listing
- **Wiki Configuration** – The edit screen for a wiki
- **Wiki Contents** – The Table of Contents list for a given wiki
- **Wiki Home** – The "home view" of a wiki. By default, this 2-column view includes a table of contents to the right.
- **Wiki List** – The list of wikis for a given community
- **Wiki List Item** – A single wiki in a wiki listing

(optional) Enter a path to a web user control

Specifies a relative URL from the root (~) of the physical path for the IIS application or IIS web site that hosts your CM websites to a web user control that you want to insert into this content record. By default, the root corresponds to **C:\Program Files\ASI\iMIS\Net**. For example, **~/CustomControls/myUserControl.aspx**.

> **Note:** Note: Be sure to use forward slashes (/) for the URL segment delimiters.

**Including a Community content item on a web page**

1. Log on as a user who is a member of the SysAdmin security role.
2. Create a community and a discussion, blog, resource library, announcement, or wiki that you want to include in another web page.
3. Using a web browser, navigate to the community item that you want to include in another web page.
4. On the web address for the page you want to include, find the **iUniformKey=**, a string of 36 characters and numbers.
5. Open the content record where you want to include the Community content item. There are two methods for opening a content record for editing:

- In the **Definition** section of a content record, click **add content**, then select the **Content Gallery** and add one of the listed content items to the content record. (Alternatively, for an existing content item, click the down triangle at the far right of the content item's title bar, then choose **Configure**.)
- When using the Edit, click the **Edit** icon that relates to various content items in the content records used in the content areas of the page. You must be logged on to the website and have **Content Editor** permissions in at least one content authority group (CAG).

6. Click a**dd content**.
7. Select a content item in the **Communities** folder, such as **Blog List**.
8. Enter a name for the new content.
9. Under **Community Item Key**, enter the iUniformKey you copied from the URL as specified below.
10. Save the content record.
11. Publish the content record.

To locate the Community Item Key

1. Using a browser, navigate to the community item listed in the table below.
2. Copy the 36-character iUniformKey= string from the web address.

> **Note:** If you cannot right-click to see Properties on a link, edit the web.config file for the website. Search for Browser.DisableContextMenu and change the value from "true" to "false."

| To get key for: | Copy iUniformKey from: |
|---|---|
| Community | web address for the Community home page |
| Announcements discussion | On community home page, right-click the "Configure" link in the Announcements section to view Properties. |
| Discussion | web address for the discussion home page |
| Discussion Topic | web address for the topic home page |
| Discussion Topic Reply | on a reply, right-click the "report" link to view Properties |

| | |
|---|---|
| Blog | web address for the blog's home page |
| Blog Entry | web address for the blog entry's page |
| Blog Entry Reply | on a reply, right-click the "report" link to view Properties |
| Wiki | web address for the wiki home page |
| Wiki Article | on an article, right-click the "report" link to view Properties |

## Understanding Marketing Suite

iMIS Marketing Suite gives your organization the flexibility to support any marketing need, from basic to complex. The Marketing Suite helps you manage:

- Fundraising campaigns, such as donor activation, reactivation, and/or renewal
- Membership campaigns, such as membership recruitment, reactivation, and/or retention
- Events and conferences
- Lead generation projects
- Publications marketing
- Public awareness campaigns
- Legislative action initiatives

With the Marketing Suite, you can define and manage a coordinated series of marketing tactics, manage the responses, and analyze the results. Use the Marketing Suite to:

- Plan and create campaigns that follow your organization's goals and requirements
- Match the message to the target
- Simplify campaign execution
- Link packages to customer segments
- Automate response follow-up tasks and move contacts to the appropriate stage in a multi-stage campaign
- Track budgets at a high level or at a detailed level
- Use analysis tools to monitor campaign success at each level

The Marketing Suite offers three areas that can work together to help you achieve your marketing objectives:

- **Campaign Management** – Plan, create, and track single or multiple campaigns
- **Segmentation** – Segment contacts and prospects according to demographic and behavioral patterns
- **RFM Analytics** – Rank a contact's past transactions with your organization

You can use Campaign Management alone or you can use the three solutions together to take advantage of data analytics and advanced segmentation capabilities. This will help your organization target the efforts in the most cost-effective and customer-focused manner.

### Campaign Management

Use Campaign Management to plan, create, and track your marketing campaigns. You can manage basic campaigns with a single customer mailing or complex campaigns with multiple appeals and solicitations.

Depending on your organization's needs, you can choose to:

- Define campaigns and categorize them by type
- Define specific goals and measure campaign performance against those goals
- Communicate with targeted prospects through a series of personalized solicitations
- Track and analyze responses

#### Campaign Management hierarchy

Campaign Management uses a four-tier campaign structure, so you can plan actions and monitor results to the detail level you need. A default hierarchy is supplied with the system. However, you can rename the hierarchy to reflect your organization's or industry's terminology.

**Campaign** - A strategy to accomplish a single marketing goal, such as a membership drive, a fundraising campaign, an annual convention, or a legislative initiative. Campaigns are the highest level of measurement and are typically project-driven.

**Appeal** - Each major marketing effort of a campaign, usually associated with a drop date. An appeal can be:

- A phase of the project, such as "First Request" or "Airwaves Blitz"
- A portion of the campaign targeted to a specific group of contacts or prospects

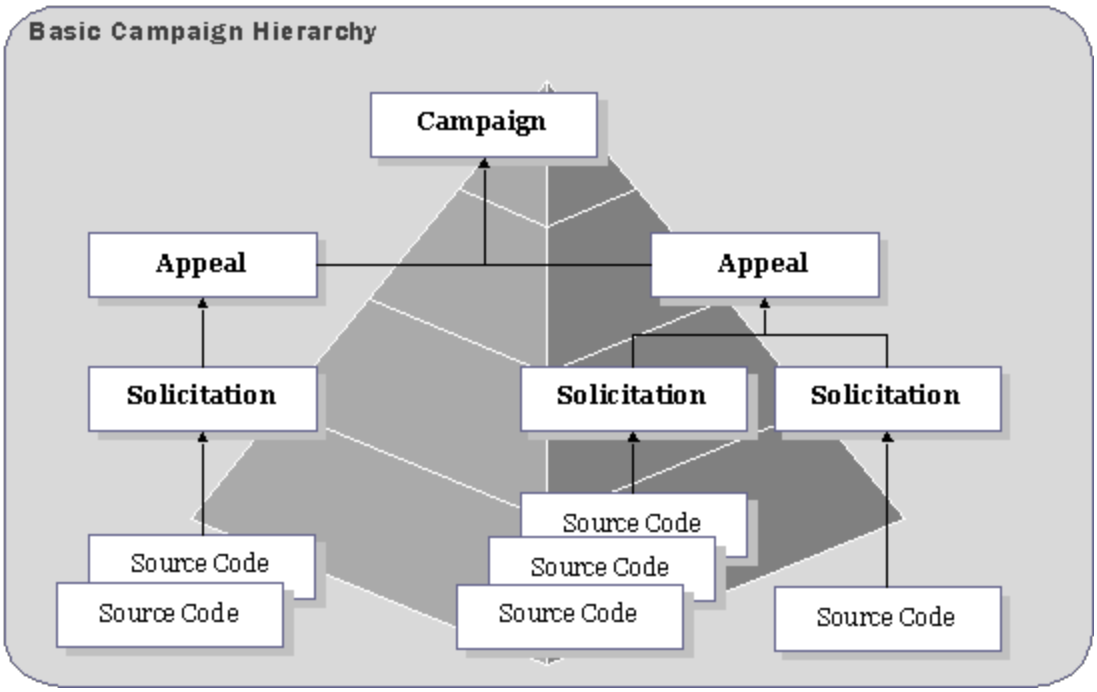
- A portion of the campaign assigned to an internal group (generating mailing lists, designing artwork, managing responses)

  **Solicitation** - A series of communication pieces for an appeal. For example, a "First Request" appeal might direct different messages to previous donors/customers than to prospects.

  **Source codes** - Numbers assigned to each communication piece to track responses. These numbers are associated with reply devices (postcard, website checkbox) so your organization can measure the effectiveness of each solicitation. Source codes are the most granular level of measurement.

  Click to view image

  Default campaign hierarchy




### Basic and complex campaigns

Generally, basic campaigns are sufficient for small events, simple marketing campaigns, limited public awareness campaigns, and similar goals. For the purposes of this discussion, basic campaigns:

- Contain few appeals and related solicitations
- Probably use only one or two source codes per appeal

More complex campaigns require efficient management and tracking of multiple, multi-tiered campaigns. For the purposes of this discussion, complex campaigns:

- Contain many appeals and related solicitations
- Use many source codes
- Often build on the targeting and analytical data generated by Segmentation and RFM Analytics

### Segmentation

Use Segmentation with Campaign Management to group contacts and prospects into targeted audiences. With Segmentation, you can:

- Create targeted contact and prospect lists according to demographic and behavioral patterns or other include/exclude criteria
- Split segments into multiple lists and prioritize the segments
- Eliminate duplicates in lists
- Create n-select or random select segments for message or delivery testing
- Get counts for communications collateral before production
- Assign unique source codes to segments to effectively analyze an effort's success

### RFM Analytics

Research proves that a contact's past transactions with an organization indicate the likelihood of future responses. The more money a contact spends with an organization and the greater the frequency of the transactions, the more likely the contact will respond to future campaigns.

Use RFM Analytics with Segmentation to rank and organize your contacts and prospects into specific groups according to the relative recency, frequency, and monetary value (RFM) scores of their transactions. RFM Analytics gives you the ability to:

- Rank and organize your contacts into specific groups
- Record a contact's first, last, and highest transaction amounts and the dates of the first and last communication
- Generate segments that divide the population into categories based on RFM criteria

- Create groups, such as quintiles, that reflect the relative ranking of customers according to all RFM measurements

  All statistics can be calculated for the source code, solicitation, appeal and/or campaign to provide the amount of summarization your organization requires. The available statistics include:

- Response rate
- Average, highest, and lowest transaction amount
- Dates of first response and last response
- Costs (actual cost, cost per thousand, estimated cost, overhead cost, total cost)
- Revenue (total revenue, net revenue, revenue per thousand, ROI)

**Communications and reporting**

iMIS communications tools help you to efficiently build customized messages for your contacts and prospects. You can gain valuable information about the effectiveness of your campaign with reports about the campaign or a portion of the campaign. These messages and reports can be generated at any level of a campaign.

Default templates for messages and reports are provided and are easily tailored to your organization's specific needs. In addition, the following communications tools give you the power to construct custom communications pieces:

- MS Word merge
- Email merge
- Crystal Reports
- Broadcast fax

  Many iMIS communications features help you perform efficiently:

- Use saved report selections from other iMIS functionality for merge lists
- Preview merged messages and edit them before sending
- Combine email merge and fax merge into one mass mailing with timed delivery
- Combine multiple queries into one mailing
- Send merged event confirmations for a single event or for all events
- Export source lists to external vendors, fulfillment providers, or listservs
- Reprint event confirmations as needed
- Send updates to the activity history display

- Collect email bounce-backs
- Ensure that broadcast email messages are not blocked as spam
- Generate projects based on complex business rules or in response to a campaign

### Marketing Suite integration across iMIS

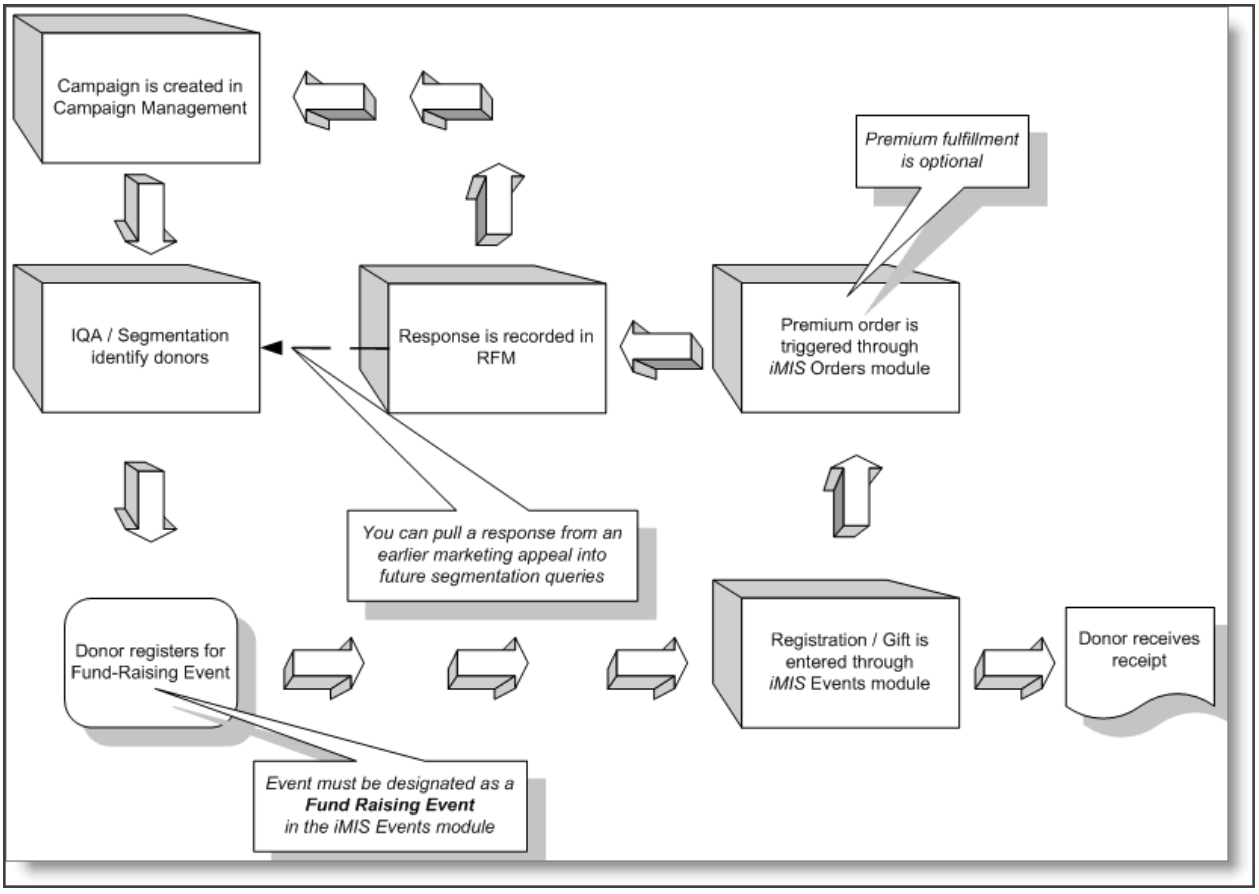
The most powerful feature of Marketing Suite is its integration throughout the iMIS system. If you choose, you can:

- Designate appropriate orders and donations as responses to the campaign
- Send personalized acknowledgements to the contact via their preferred method of communication
- Use responses to previous solicitations for future targeting and list segmentation

The following diagram illustrates the advanced integration that is possible between Campaign Management and other iMIS features.

Click to view image

Example of Marketing Suite interaction throughout iMIS



## Setting up Marketing Suite

### Licensing and installing

Follow standard iMIS procedures for licensing and installing Campaign Management.

After installation, you must synchronize responses before other setup tasks. This initializes the database to recognize new product sales only so that the response reporting does not include previous sales.

### Setting up security groups for campaigns

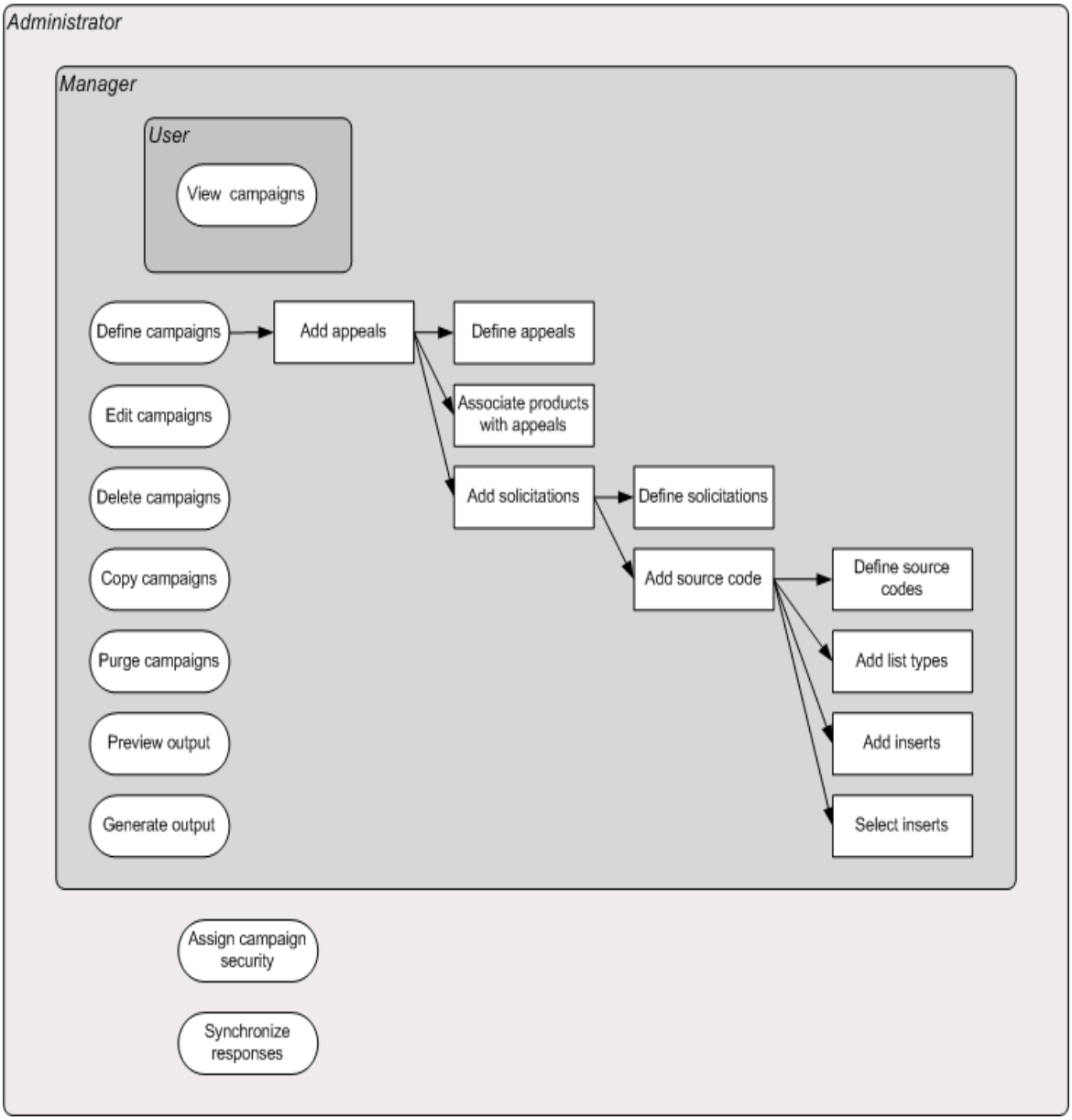
Security groups specify levels of access and control for users. Each user must have a record in the database before you can add them to a security group.

Campaign Management security groups

- **CampaignAdmin**: Has full control access for all campaigns.
- **CampaignMgr**: Has read, add, edit, and delete access for the module and read and edit access for all campaigns.
- **CampaignUser**: Has read-only access for campaigns.

Click to view image

Campaign tasks by security group




Segmentation security groups

- **SegAdmin**: Has full control access for all segment setup and segmentation jobs.
- **SegMgr**: Has read, add, edit, and delete access for all segments and jobs.
- **SegUser**: Has read-only access for segmentation jobs.

RFM Analytics security groups

- **RFMAdmin**: Has full control access for RFM Analysis setup and processes.
- **RFMMgr**: Has read, add, edit, and delete access for all analysis and reports.

- **RFMUser**: Has read-only access for reports.

To add users to security groups

1. From **Marketing**, select **Set up campaign module > Security Groups** tab, or **Set up segmentation**, or **Set up RFM**.
2. Select a security group.
3. Under **Select New Members**, search for and select the additional users.
4. Click **Save**.

**Setting up reports and output processes**

iMIS communications tools give you the power to optimize communications within your organization and with outside contacts. By using templates and pre-built reports, your staff can be productive immediately. They can generate reports and email messages, send Microsoft Word letters, and export data to Excel spreadsheets or other analysis tools without detailed knowledge of database structure or report configuration. See Communications and reporting for more information.

**Setting up Campaign Management**

Set up Campaign Management according to the method your organization uses to track and process data. These options apply to all campaigns. Use the Business Object Designer to track additional information that is important to your organization's marketing success.

Source code ID mode

This setting determines whether source codes will be generated manually or automatically.

- *Manually* – When enabled, the **Manually-Assigned** option governs the **Set up module** page's **Source Code Name Format** field and the source code **Definition** tab's **Code** field:
- The **Source Code Name Format** field is disabled.
- The **Code** field is editable until the source code is saved; once saved, the **Code** field cannot be edited.
- The **Code** field is blank when first creating a source code.
- You must enter a unique value in the **Code** field to save a source code.
- *Automatically* – When enabled, the **Auto-Assigned** option governs the **Set up module** page's **Source Code Name Format** field and the source code **Definition** tab's **Code** field:

- The **Source Code Name Format** field is enabled.
- The **Code** field is read-.
- The **Code** field populates automatically with a unique value when saving a source code.

Tracking costs

You can track campaign costs by appeal or by source code.

*Tracking by appeal* – If the budget and costs are tracked at the appeal level:

- Total costs display at the campaign and appeal levels only.
- Users can view the Total Cost, Target Revenue, Predicted Response Rate, and ROI for a campaign.
- Users can enter and edit the Overhead Cost, Target Revenue, and Predicted Response Rate for an appeal.
- Users cannot view or edit costs for a solicitation or source code.
- Users can enter costs for an insert, but these costs are ignored in the campaign and appeal cost calculations.

*Tracking by source code* – If the budget and costs are tracked at the source code level:

- Users can view the Total Cost (estimated or actual), Target Revenue, Predicted Response Rate, and ROI for a campaign, appeal, or solicitation.
- Users can edit the Overhead Cost, Target Revenue, and Predicted Response Rate for a source code.
- Users can view the Total Cost (estimated or actual) for a source code.
- Users can enter costs for inserts, which are used for cost calculations.
- The **Summary** tab for a campaign, appeal, solicitation, and source code display Estimated Cost until output is generated. After generating output, Actual Cost displays. (For a campaign, appeal, or solicitation, the **Summary** tab displays the Actual Cost if output has been generated for any child source codes; otherwise, Estimated Cost displays.)
- The **Calculate Estimated Costs** button displays on the campaign, appeal, solicitation, and source code portfolio pages.

About auto-map source codes when retrieving responses

If selected, this setting automatically maps source codes to orders, gifts, and pledges if a source code is not provided when synchronizing responses. The source code is obtained

from iMIS **Events**, **Orders**, or **Fundraising**.

If the setting is not selected, iMIS does not recognize responses if an order, gift, or pledge does not have an associated source code.

> **Note:** This feature applies only if one or more products are associated with an appeal.

To set Campaign Management options

1. From **Community**, select **Manage marketing campaigns > Set up campaign module > Options tab**.
2. Enable the desired options:
   - Choose the **Source Code ID Mode**: **Manually-Assigned** or **Auto-Assigned**.
   - If **Auto-Assigned** is enabled, enter the **Source Code Name Format**.
   - Choose the **Budget Level: Appeal** or **Source Code**.
   - Check to select **Auto-map source codes when retrieving responses**.
3. (optional) Enter the **Opt Out URL** and the **Opt Out Key** which can be used when editing an email template (see Defining output processes) for customers who want to be removed from a mailing list.
4. Click **Save**.

**Understanding opt-out configuration**

Sometimes people want to be removed from a campaign mailing list. This action is called opting out. Campaign managers want to know the number of people who opt out of a campaign and which source code is related to the opt-out action.

Understanding the tracking of opt-outs helps you analyze the campaign's effectiveness. Opt-outs are tracked from the originating source code so that your campaign manager knows the source code that caused the opt-out action.

Two settings and inserting code into an email template control the opt out configuration (**Community > Manage marketing campaigns > Set up campaign module**):

- **Opt Out Url** field points to a special opt out page, such as http://www.-domainname.org/iMIS/OptOut.aspx. When the person clicks on the link in the email containing the Opt Out code, they are taken to this page. The page can contain instructions

for choosing to be removed from the list, or request further information for why the message caused the email recipient to choose to be removed.

- **Opt Out Key** field contains **%OPTOUTURL%** by default. This field contains the code that you insert into the email template in the HTML code. You could change it to %REMOVEME% or another variable name, but you must be sure to change the code in the email templates that use the Opt Out Key in them.
  When you create an email merge template, use HTML, not plain text, and use %OPTOUTURL% for the URL for the link. For example, add the text, "If you want to be removed from our campaign, click here." Highlight "click here" and insert a link. Enter %OPTOUTURL% as the **URL** and choose **Other** as the **Type**.

  Using this email merge, generate output from a source code. The email messages are generated and sent.

  When an email recipient clicks the "click here" link in the campaign email, they go to the URL for the **Opt Out Url** page configured in the Staff site (**Community > Manage marketing campaigns > Set up campaign module**).

  If you have more than one source code in one campaign that solicits the same prospect, opting-out for any one source code should opt-out all source codes in the campaign that have solicited that prospect. In addition, iMIS discontinues all further campaign appeals, solicitations, and source codes for that prospect, even those that are created after the opt-out. In short, any future lists automatically exclude that contact from being selected again.

  For example, when you look at the **Record Responses** area and look up an ID, you see every source code the person with that ID is being solicited for. If a member is solicited by two different source codes within the same campaign, they are shown as opted-out of both campaigns.

  Solicited and unsolicited responses
  The definition of a solicited response is twofold. One definition is an order (product, event, fundraising) or opportunity that has a source code associated with it and the primary contact (or BT_ID) has been solicited for the source code. The other definition is associated

with an order that contains no source code but does contain a product that is associated with an appeal and the primary contact (BT_ID) has been solicited for a source code within the appeal. For the second definition to be recognized as a response, automatic source code mapping must be enabled. Opportunities that do not reference a source code are not calculated as a response.

The definition of an unsolicited response is also twofold. One definition is an order (product, event, fundraising) that has a source code associated with it and the primary contact (BT_ID) was not solicited for the source code. The second definition is an order that contains no source code but does contain a product that is associated with an appeal, but the primary contact (BT_ID) has not been solicited for any source codes within the appeal. For the second definition to be recognized as a response, automatic mapping of source codes must be enabled. Auto-mapping of unsolicited responses is not a perfect implementation.

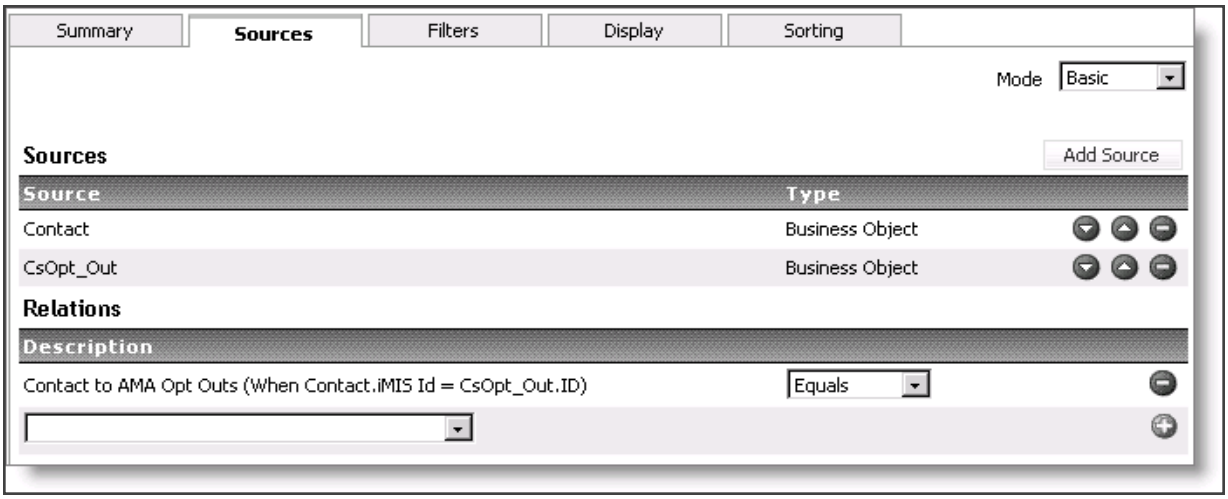
The begin and end dates of the source code, solicitation, appeal, and campaign are ignored when recognizing responses for both explicit or indirect responses. This design means that an order generated past the campaign end date still generates a response to the campaign.

Events and responses
Responses are created as one response per order or event registration. A single event registration for ten contacts would be recorded as a single response.

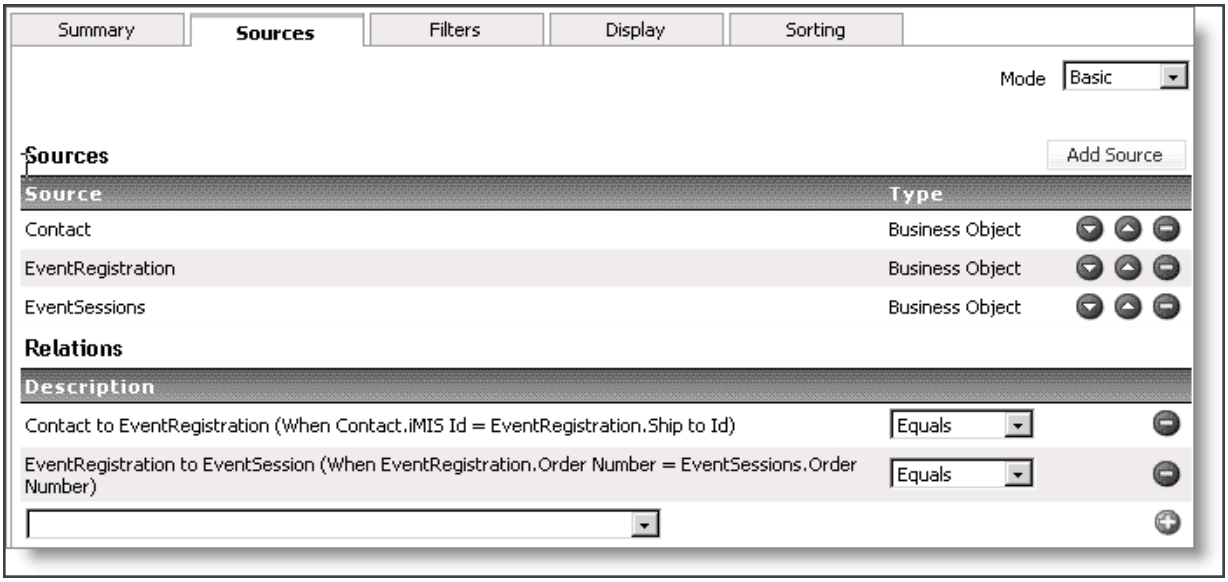
### Example: Segmentation queries for RFM analysis

The following example illustrates queries for segmentation and RFM analysis.

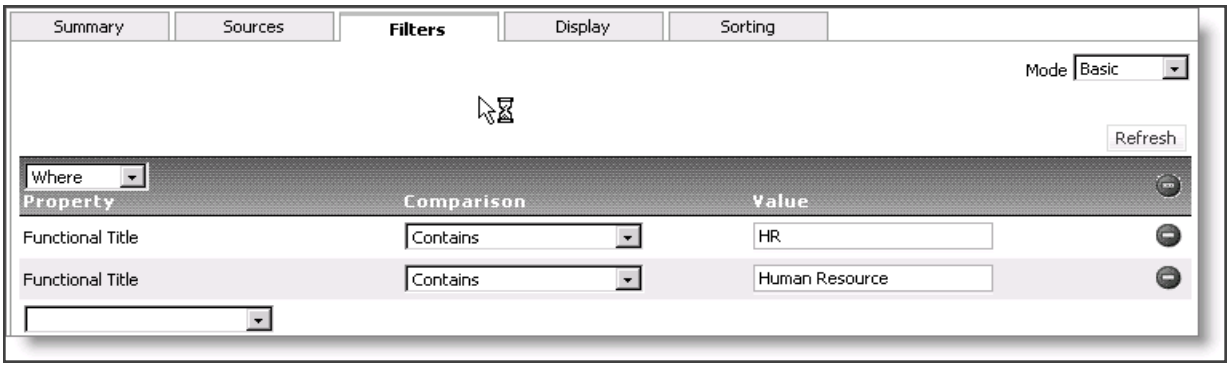
1. In IQA, create the segment queries.
2. Write a query to suppress Opt Out responses. For example:
   Click to view image



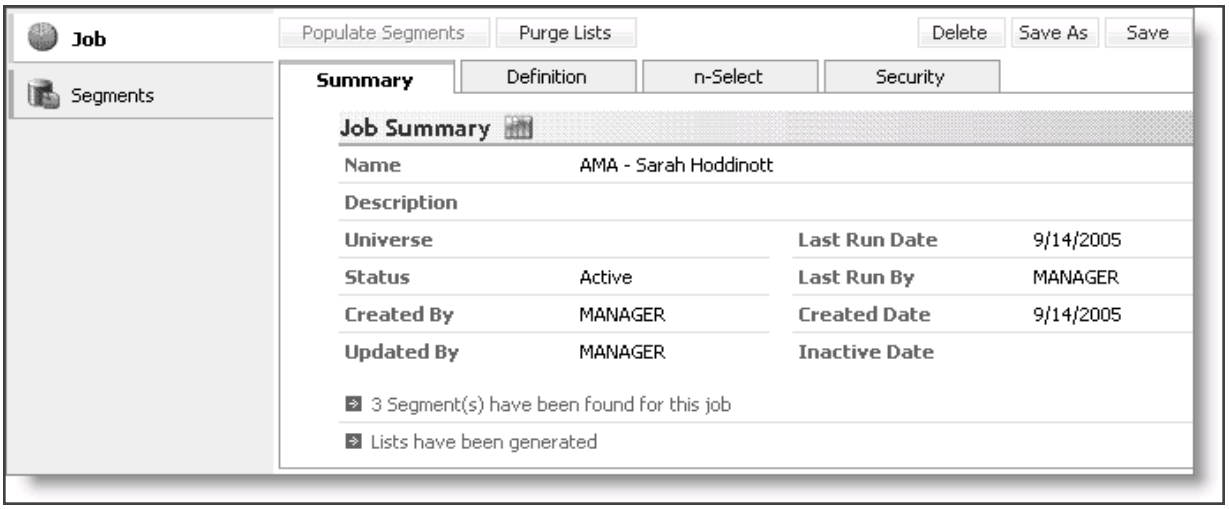

3. Write the query for a Segment Definition 1. This segment includes anyone who has purchased seminar 6515 this year.
   Click to view image




4. Write the query for Segment Definition 2. This segment includes HR Professionals.
   Click to view image




5. Create the job. The job is a container for all of the segments to be run.
   - Create the first segment: Suppress query – Catalog opt outs
   - Add the remaining segments.
6. Populate the segments. Your results page may look like the following example:
   Click to view image




## Setting up Basic Campaigns

Campaign Management helps your campaign staff set up and manage "basic" campaigns easily. For the purposes of this document, basic campaigns:

- Contain few appeals and related solicitations
- Generally use only one or two source codes per appeal
- Use the Select and Send model – Select the target audience from the iMIS database or an external list, send communications to that audience, and track incoming responses

With Campaign Management, campaign staffers can:

- Plan and define basic campaigns
- Create and send appropriate communications material
- Monitor campaign performance

### What must be done before you can start?

You cannot set up a basic campaign until the following setup tasks are complete:

- Define setup options for all campaigns
- Set up security groups for campaigns

### Putting it all together

The process of basic campaign management includes the following actions:

- Plan the campaign
- Define the campaign
- Define the appeals and solicitations in the campaign
- Specify communications efforts
- Monitor and measure performance

### Campaign hierarchy

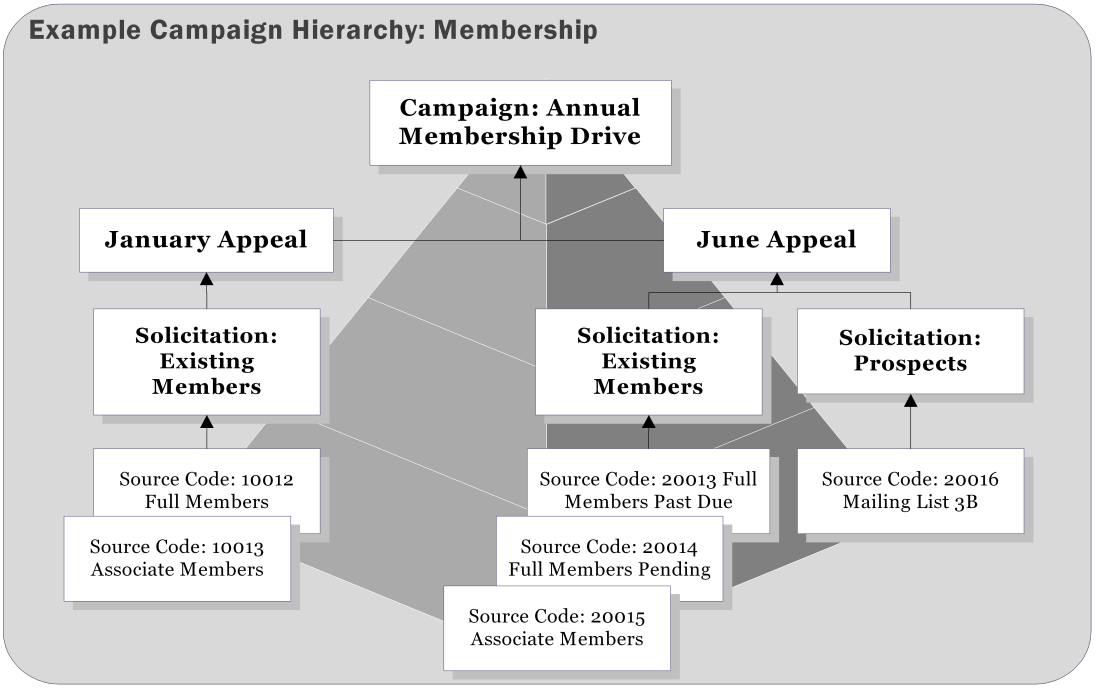
Campaign Management uses a hierarchical system to give you the flexibility to manage campaigns at the level of detail you require. The four levels are:

1. **Campaign** – A strategy to accomplish a single marketing goal. The campaign is the highest level of organization and measurement.
2. **Appeal** – Each major marketing effort of a campaign, usually associated with a drop date (the date the effort is sent out). Appeals are the building blocks of your campaign.
3. **Solicitation** – A communication effort sent to a targeted group. Solicitations can be sent as letters, email messages, phone calls, or other means.
4. **Source Codes** – Numbers assigned to each possible response for a specific solicitation (such as reply cards, phone calls, donations, or purchases). Your organization tracks responses with these numbers to measure the effectiveness of each solicitation. Source codes are the most granular level of measurement in a campaign.

   The following diagram illustrates an example hierarchy for a basic member retention campaign.

   Click to view image

   Example membership campaign




### Viewing campaigns

Campaign Management provides you the flexibility to view campaign information in a variety of ways. You can choose to:

- Filter campaigns by desired criteria
- Sort campaign lists by name or date
- Change the default sort order
- View the campaign structure to the level of detail you need

To filter campaigns by criteria

1. From **Community**, select **Manage marketing campaigns > Define campaigns**. By default, iMIS displays all **Active campaigns** for which you have security access privileges.
2. Choose a filter, if desired.
3. Click a column header to sort by that column.

> **Note:** To change the default sort order when appeals are listed, edit the query named "(Default)" in **CampaignManagement/DefaultSystem/Queries/CampaignAppealsList/**. However,

you cannot edit the query to change sort order if solicitations or source codes are displayed.

4. Select the campaign you want to view. The campaign overview displays. The tabs along the top of the campaign display information about the campaign:

- The **Summary** tab displays general information about the campaign.
- The **Profile** tab displays general information for editing.
- The **Appeals** tab displays the appeals associated with the campaign.
- The **Security** tab displays access levels for defined security roles.

To view campaign details

1. From **Community**, select **Manage marketing campaigns**.
2. Select the campaign you want to view.
3. Choose the level of detail to view:

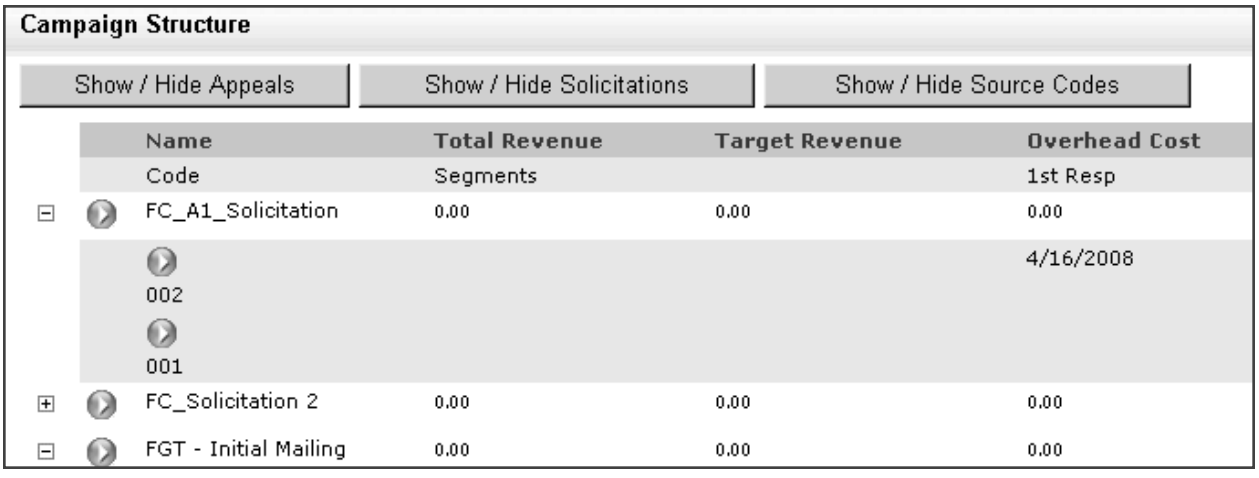
- **Show / Hide Appeals**
- **Show / Hide Solicitations**
- **Show / Hide Source Codes**

**Campaign Structure page**

The **Campaign Structure** page displays a clear picture of campaign structure in a single display.

Click to view image

From **Marketing**, select **Campaign management**



Buttons across the top of the window (**Show / Hide Appeals, Show / Hide Solicitations, Show / Hide Source Codes**) enable you to collapse or expand the list to show the appeals, solicitations, and source codes for each campaign. **Select** links at the left of each row enable you to go directly to definition windows for solicitations and source codes.

### Planning the campaign

By planning your campaign carefully, you and your staff can perform efficiently and effectively. The planning process includes:

1. Setting goals for the campaign
2. Defining campaign components and hierarchy
3. Defining the budget and cost tracking, if any
4. Identifying targets
5. Specifying marketing efforts
6. Defining campaign performance measurement

Your campaign might be an isolated, one-time-only campaign, or part of an annual or multiple-year strategic plan. Factor this into your planning.

#### Setting goals for the campaign

The goals and objectives for your campaign are unique to your organization. A goal is a simple statement that expresses what you want to do, such as:

- Increase the number of new donors
- Enroll new members
- Sell a new product
- Solicit advertisers for your periodicals
- Get a message out

An objective then states a measurable amount, such as:

- Increase new donor count by 5%
- Enroll 150 people
- Sell 2,000 units
- Increase ads placed by 15%
- Contact 15,000 prospects

You might set response rate goals, enrollment goals, sales goals, or budget goals. Knowing this information in advance can help you determine how best to set up your campaign.

Defining campaign components and hierarchy

A campaign is an organized set of appeals that you create to accomplish your marketing goal. The campaign can consist of one or many appeals and solicitations.

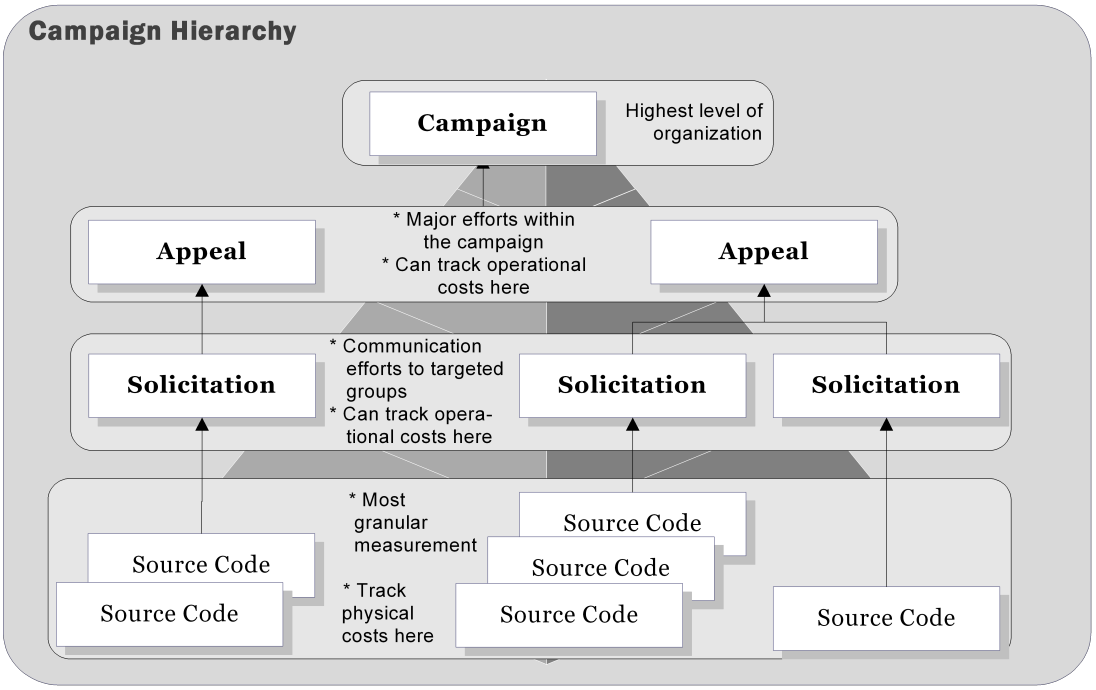
Tips on defining campaign hierarchy:

- Use appeals to split your campaign into major efforts.
- Define one or more solicitations for each appeal by target group, message, or delivery method.
- Assign one or more source codes to each solicitation to track responses.
- Create unique names at all levels: each campaign, each appeal within a campaign, each solicitation within an appeal, and each source code within a solicitation. The naming convention might be by department, type of campaign, year or quarter, or other meaningful methods.

It might be useful to sketch your campaign hierarchy in advance, for example:

Click to view image

Description of campaign hierarchy



Defining cost tracking data

In marketing campaigns, costs are tracked to calculate metrics such as Net Revenue, Cost per Thousand, Revenue per Thousand and Return on Investment. The cost of a campaign includes the overall operational costs of the campaign and the individual costs of each "package" that is sent.

Operational costs

Operational costs include any items that are applied to the entire marketing effort, such as:

- Paper
- Printing
- Letter shopping

You can track these costs at the appeal or source code level. In a basic campaign, you will probably define few source codes. In this case, it is effective to track operational costs at the source code level.

However, you may choose to track operational costs at the appeal level if you are managing a complex campaign with dozens or hundreds of source codes.

Package costs

Package costs include any items that are applied to the actual insert or package, such as:

- Postage
- Outer envelope
- Business reply envelope
- Business reply device
- Telemarketing costs

These costs are tracked at the source code level.

Identifying targets

Getting the right message to the right person at the right time is critical to the success of your campaign. With Marketing Suite, you can target prospects with simple or sophisticated tools. By precisely defining target markets, you can refine campaign messages with great accuracy. And you can measure the response rate to the messages for specific

groups of people.

Think about which factors should be included and which should be excluded for each targeted group. You will use these factors to define the segment of prospects that you will be targeting for each solicitation.

Plan for the cases where customers 'opt-in' and 'opt-out' of different marketing activities. After the targeted message is delivered, the prospect will or will not respond. Marketing Suite gives you the power to define and manage processes for either case.

Some organizations use external lists to identify targets for their campaigns. External lists are brokered with individual list agreements that govern how the list can be used and for how long. Sometimes lists are given to the organization with all names and contact information attached. Other times, lists are used once and the organization only sees the contact information when the customer responds.

Planning communications efforts

Plan the efforts you will use to communicate with contacts or prospects. Each effort can be a combination of brochures, email messages, promotional goods, or whatever items you deem necessary. Define the contents and drop date for each package.

In addition, plan how you will communicate among the team and among your organization. Are there specific reports that will be useful for staff? Will you need to send email messages to the team upon completion of certain tasks?

Defining campaign performance

Measuring the success of your campaign will help improve your next marketing effort. Each time the cycle repeats itself, you become more efficient at honing your message and delivering the right message to the right person at the right time.  As a result, you are able to set ever higher goals for your organization.

iMIS provides you with analysis, workflow design, and communications tools to optimize the marketing cycle throughout your organization. Effective analysis allows you to target your time, energy, and budget to those pursuits, which are most likely to be profitable.

The iMIS database stores all of your important transactional, historic, and demographic data, giving you the power to prioritize the data and present it to stakeholders in a meaningful manner.

Make sure you define how you will track data to determine performance. Some suggestions:

- Run counts and statistics on your database before you start the campaign to define your starting point.
- Specify your predicted response rate.
- Determine the metric you will use to show success.
- Synchronize responses regularly. This helps you stay up-to-date with metrics.

**Defining marketing campaigns**

After you plan the campaign, you are able to set up the campaign structure efficiently.

Business Goals

To define a campaign:

1. Enter basic information such as name, status, and start date.
2. Designate the general type of campaign. Use the defaults or custom types designed for your organization.
3. (optional) Enter predicted information, such as end date and predicted response rate.
   If there is an existing campaign in place, you can create a new campaign quickly by copying it (cloning it) and editing it. See To clone a campaign.

   If you delete a campaign, appeal, solicitation, or source code, all the lower levels of the hierarchy will also be deleted, regardless of status.

To create a campaign

1. From **Community**, select **Manage marketing campaigns > Define campaigns**.
2. Click **Add a Campaign**.

3. Define the campaign:
- Enter a **Name** and **Campaign Code**.
- (optional) Enter a **Status** (**Active** or **Inactive**).
- If the status is changed from Active to Inactive, the status of all child entities is set to **Inactive**.
- If the status is changed from Inactive to Active, the status of child entities is not affected.
- The status of a child entity cannot be changed to **Active** if any parent entities have an **Inactive** status.
- Enter a campaign **Type**:
- **None**
- **Annual** – A campaign that occurs every year
- **Designated** – Funds generated by the campaign that are committed to a specific entity
- (optional) Enter a **Start Date** and an **End Date**.
- (optional) Enter a **Predicted Response Rate** (the estimated percentage of contacts that will respond to the appeal) and the **Last Response Date**.
- (optional) Enter a **Description**.
4. Click **Save**.

To clone a campaign

A cloned campaign is an exact duplicate of the original campaign with the following exceptions:

- The **Name** and **Campaign Code** are different.
- The **Created Date** equals the copy date.
- The **Created By** field equals the user who copied the campaign.
- The **Start Date**,**End Date**, and **Reminder Date** are adjusted automatically for the copied campaign.
- The copy has the same structure as the original campaign, including all appeals, solicitations, and source codes.
- All copied source codes contain the same inserts and messages as the original campaign.
- Source lists are not copied.
- If Campaign Management is configured to assign source codes automatically, all new source codes are regenerated automatically.

- If Campaign Management is configured to assign source codes manually, all new source codes are formatted as 'Copy of (original code).' If this code already exists, the code is copied until a unique code is found: 'Copy (sequence #) of (original code).'
  To create a new campaign quickly, you can clone an existing one and edit it.

1. Select **Community > Manage marketing campaigns > Define campaigns**.
2. Select a campaign.
3. Click **Save As**.
4. Enter the new campaign **Name**, **Campaign Code**, and **Type**.
5. Click **Save**.

To edit campaign security settings

Default campaign security settings are set up when the Marketing Suite is set up. However, if you are authorized, you can grant specific users and/or groups access to a campaign.

1. Select **Community > Manage marketing campaigns > Define campaigns**.
2. Select a campaign.
3. Click the **Security** tab.
4. Select an **Access Mode**:
   - **Share (Everyone)** – Grants everyone full control.
   - **Private** – Grants full access to those assigned to the project.
   - **Advanced** – Enables the **Access Mode** drop-down list and allows you to edit the access list. You can select one of the listed access areas or select **Custom** to choose from a list of defined security roles.
5. Click **Save**.

**Tracking costs for campaigns**

To track costs at the Appeal level

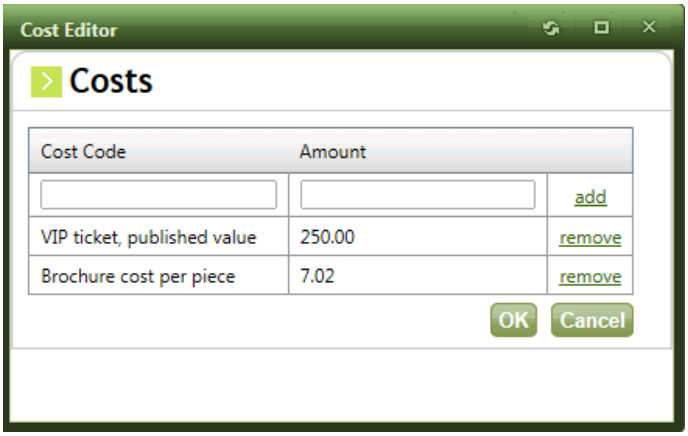
1. Select **Community > Manage marketing campaigns > Track campaigns**.
2. Click **Show / Hide Appeals** and open an appeal.
3. (optional) Click the **Profile** tab and click the plus sign next to the **Overhead Cost** field.
4. Add an additional cost and click **Save**.

To track costs for an insert

Click to view image

1. Select **Community > Manage marketing campaigns > Define inserts**.
2. Select an insert.
3. Click the browse icon next to **Total**.
4. Enter a value in the **Cost Code** and a cost per piece in the **Amount**.
5. Click + for each cost code you want to add.

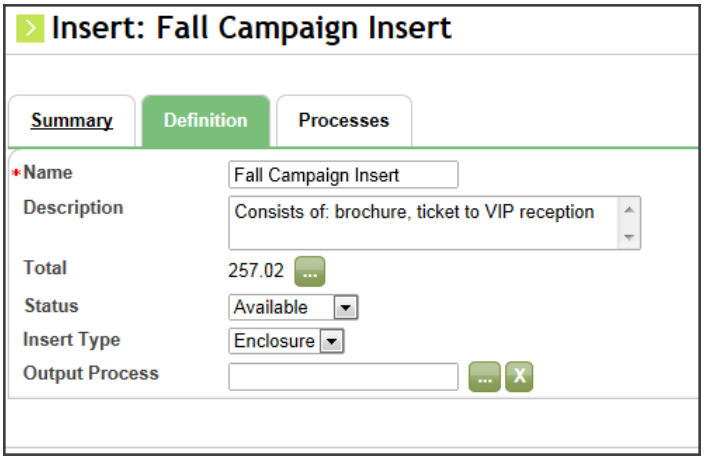
   Click to view image




6. Click **OK** to save the values. Confirm that the **Total** on the Insert window now shows the sum of the values entered on the **Costs** pop-up.

   Click to view image

   Sum of inserts




Sum of inserts

Tips

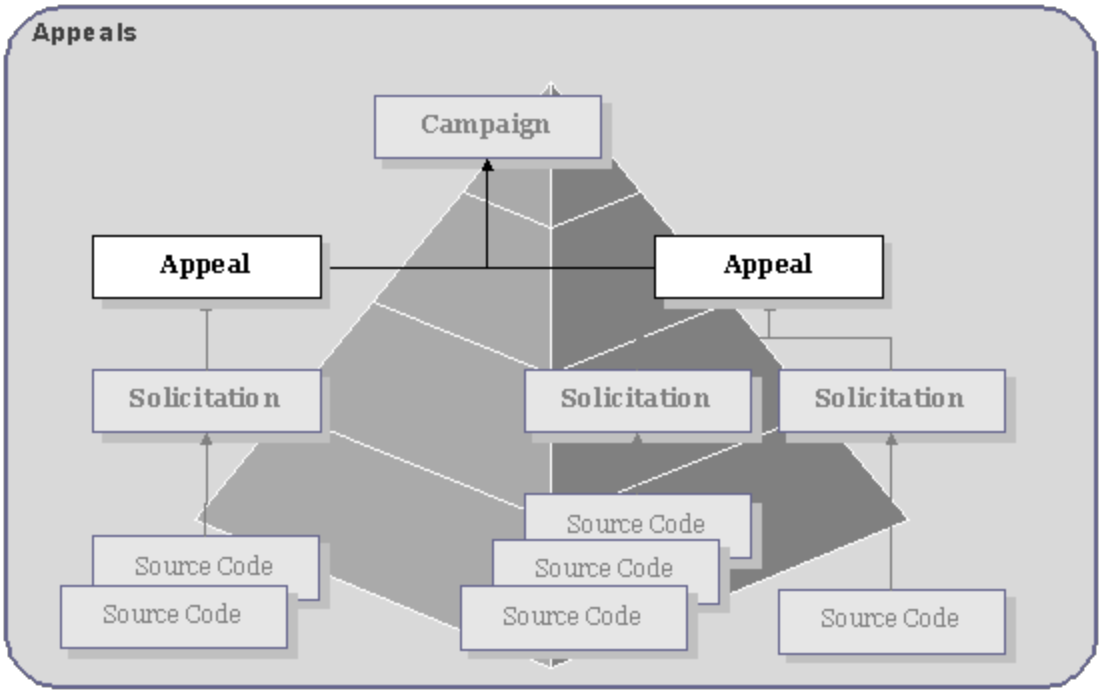
- Operational costs should be tracked at the Appeal or Source Code. The choice of tracking overhead costs at the Appeal or Source Code level is made in **Community > Manage marketing campaigns > Set up campaign module**.
- Package costs include any items that are applied to the actual insert or package: Those are tracked with the insert costs.
- Overhead Costs refer to any cost that is applied to the mailing or marketing effort as a whole. These costs tend to be difficult to break down on an item by item or cost per piece basis. You want to be able to track the costs against the appeal as a whole rather than trying to break out the costs against different source codes. This is especially true when you have multiple source codes within a marketing effort.
- Some costs apply only to a particular Source Code or part of a marketing effort, such as list rental costs or the difference between different packages sent. Even if you choose to track overhead costs at the Appeal level in your **Community > Manage marketing campaigns > Set up campaign module options**, you still have the option to be able track those additional costs. They are tracked as part of the package attached to the source code.

**Defining campaign appeals**

The appeal level is the anchor that binds the different elements of a marketing campaign.

Click to view image

Appeal level in campaign hierarchy




An appeal is the level of a campaign where you:

- Link specific products to the campaign
- Assign drop dates for media and other efforts
- Track costs, if desired

Important prerequisites to defining appeals

- You must have a campaign set up before you can add an appeal.
- Make sure that all products are created before you link them to an appeal. The purchase of these products will be tracked to help you measure the campaign's success.

Business goals

To define appeals for your campaign, you will:

1. Link specific products to the campaign. Your campaign might include physical products such as apparel, books, and documents or non-physical products such as event functions, gifts, and pledges.
- From the iMIS Advanced Accounting Console, set up the products in the appropriate area before assigning them to the campaign.
- Fundraising events: **Events > Define an event or from the Staff site, select Events > Add event**.

- Gifts and pledges: **Settings > Fundraising > Set up tables > Appeals** or **Distributions and premiums**
- Physical products: **Commerce > Inventory > Products**
- Add the products to the appeal(s) in the campaign.
- (optional) Set up minimum required gift amount to receive each product.

2. Assign drop dates.

- The definition of drop date depends on the media involved:
- Direct mail – Date the post office starts to deliver the mailing
- Telemarketing – Date the calls begin
- Media spots (TV, radio, webcast) – Date of airing
- Newsletters – Date of mailing, by issue
- Online campaigns – Date the email messages are sent
- Drop dates for other efforts can include:
- Mailing list generation
- Creative concepts/artwork complete
- Response management process set up

3. Track costs (optional). If your organization tracks operational costs at the appeal level, you will need to enter cost information when you set up the appeal.
   Next step: You will define solicitations as the different messages or groups of responses.

To create an appeal

1. Select **Community > Manage marketing campaigns > Define campaigns**.
2. Select the appropriate campaign.
3. Click the **Appeals** tab.
4. Click **Add an Appeal**.
5. Define the appeal:

- Enter a **Name**.
- Select a **Status** (**Active** or **Inactive**).
- If the status is changed from Active to Inactive, the status of all child entities is set to Inactive.
- If the status is changed from Inactive to Active, the status of child entities is not affected.
- The status of a child entity cannot be changed to Active if any parent entities have an Inactive status.

- (optional) Enter an **Overhead Cost**, or click the plus icon to add multiple costs.
- (optional) Enter a **Start Date** and an **End Date**.
- (optional) Enter a response rate next to **Predicted Response Rate** (the estimated percentage of contacts that will respond to the appeal) and the **Last Response Date**.
- (optional) Enter a dollar amount for a **Target Revenue** value.
- (optional) Enter a **Description**.

6. Click **Save**. The system displays the status on the **Summary** tab. Click on the link for more details.

To assign a product to an appeal

1. Open a campaign.
2. Click the **Appeals** tab and select an appeal.
3. Click the **Products** tab.
4. **Select a Query** to view:

- **All Products**
- **Products By Code**

5. Select the desired products. The added products display in the list of **Selected Products**.
6. Click **Save**.

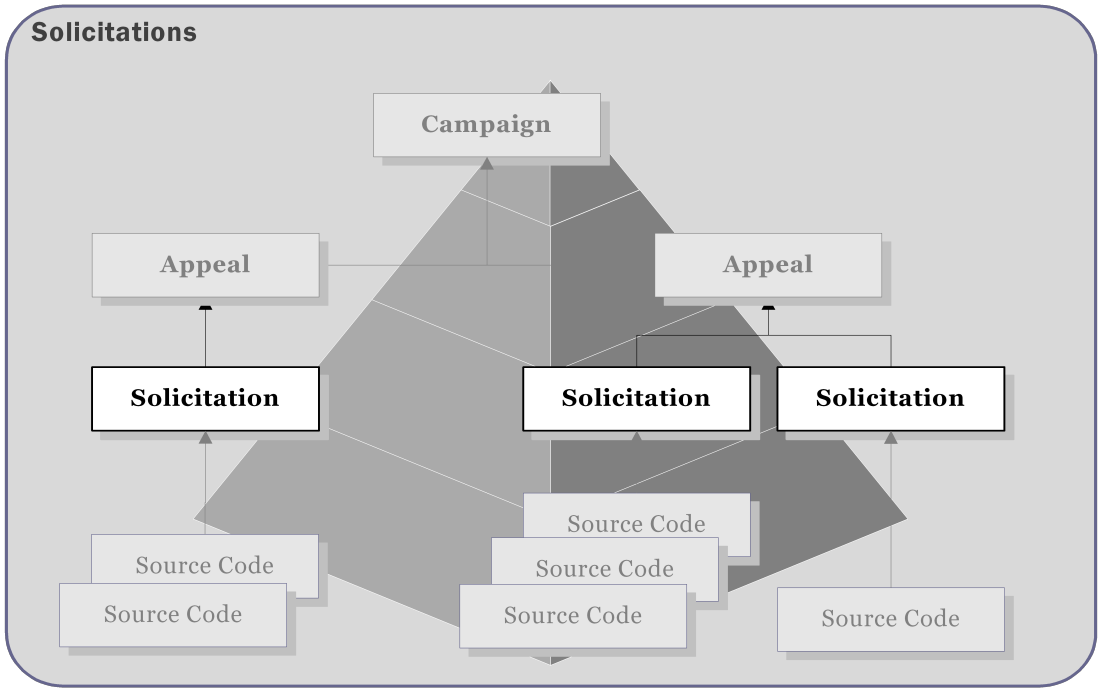
> **Note:** When you delete a product after it has been assigned to an appeal, the Products tab displays only the product code of the deleted product.

### Defining solicitations

A solicitation is an organizing function that allows you to track responses by targeted groups. The solicitation is a series of source codes that requests a response from contacts and prospects (such as a reply, donation, or purchase). Using source codes, you create solicitations to target a specific marketing appeal for different groups of contacts and prospects. Solicitations can be in the form of letters, phone calls, personal conversations, or other methods of contact.

Click to view image

Solicitation level in campaign hierarchy




Solicitations can be:

- Message-based – The message is divided into different letter contents or package concepts. For example, if a mailing has an inexpensive package that will be sent to contacts who are least likely to respond, you can set up one solicitation for the less expensive package and a separate one for the more expensive package.
- External group-based – Different messages are sent to targeted groups of contacts.
- Internal group-based – Different messages are sent by different groups within your organization.

  Organizations with multiple source codes within their organization probably need to measure responses in groups of source codes as well as at the source code level itself. See Setting up complex campaigns.

To create a solicitation

Before you begin you must define one or more appeals before you define solicitations.

1. Select **Community > Manage marketing campaigns > Define campaigns**.
2. Select a campaign and then select an appeal.
3. Click the **Solicitations** tab.

4. Click **Add a Solicitation**.
5. Define the solicitation:
   - Enter a **Name**.
   - Select a **Status (Active** or **Inactive**).
   - If the status is changed from Active to Inactive, the status of all child entities is set to Inactive.
   - If the status is changed from Inactive to Active, the status of child entities is not affected.
   - The status of a child entity cannot be changed to Active if any parent entities have an Inactive status.
6. (optional) Enter a **Start Date** and an **End Date**.
7. (optional) Enter a **Display Predicted Response Rate** (the estimated percentage of contacts that will respond to the appeal), **Description**, **Reminder Date**, and **Last Response Date**.
8. Click **Save**. The system displays the status on the **Summary** tab. Click on the link for more details.

Tips

- Combine multiple source codes and list sources into a single solicitation.
- Use consistent naming conventions when creating solicitations.

**Specifying communication efforts**

Business goals

To define a communications effort for a campaign, you will:

1. Define source codes.
2. Create inserts.
3. Create or select target groups (source list).
4. Select a source list (who is selected to receive the message) and an insert (what will be sent) for each source code.
5. Generate output.

Defining source codes

Source codes are the most granular level of measurement in Campaign Management. These codes are used to identify messages you send out and track the responses to these messages. Source codes are linked to reply devices such as postcards, website

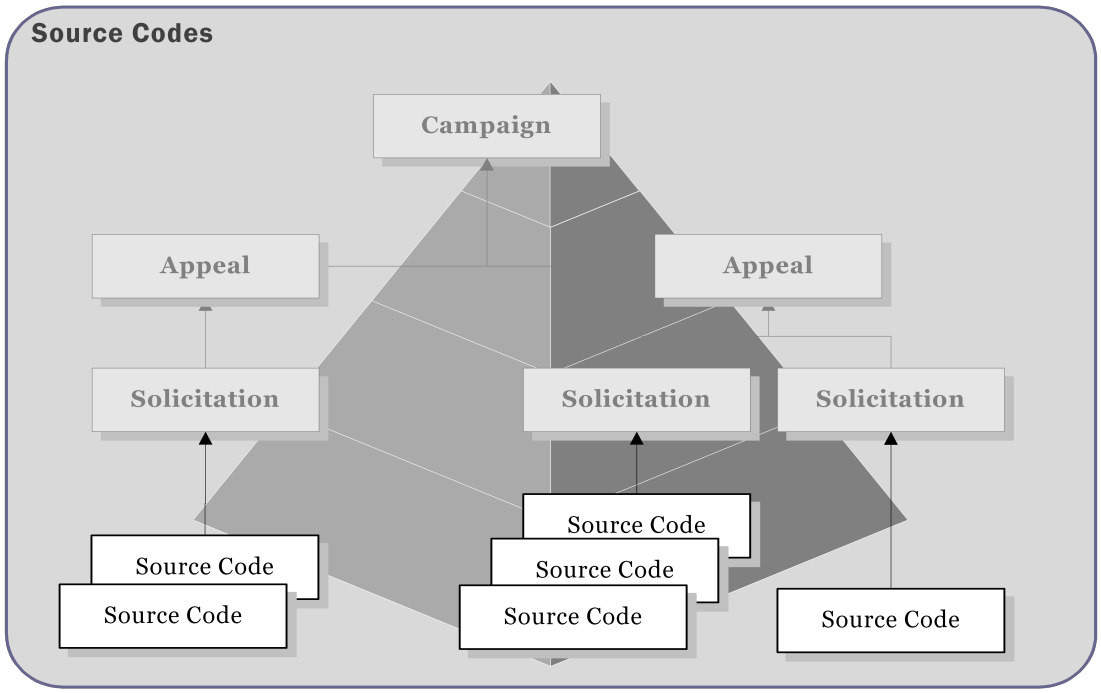
links, donations, and purchases.

Use sources codes to:

- Tag the marketing message for each targeted group and to track the responses.
- Use questions such as "How did you hear about us?" to identify the message or call to action that prompted the response.
- Set up codes for bounce-backs and responses that cannot be linked to a specific message.

Click to view image

Source code level in campaign hierarchy




There are three general kinds of source codes:

- Codes assigned to outgoing marketing efforts to track the incoming responses to the effort. Sometimes a contact receives more than one solicitation from your organization in a certain time frame.
- Generic codes that are assigned to ongoing passive ways in which a customer can support your organization, such as web transactions, word-of-mouth, or calls to action.
- Codes that are assigned to capture responses when the actual source code is not known.

Important prerequisites for defining source codes

- Define one or more solicitations.
- Set up source lists.
- Create an insert for the source code.

Tips for defining a source code

- Use consistent naming conventions when creating source codes. Your administrator can set up automatically generated source codes that follow your organization's standards.
- To ensure accurate response data, do not edit a source code after the responses are processed.

To create a source code

1. Open a campaign, appeal, and solicitation.
2. Click the **Source Codes** tab.
3. Click **Add a Source Code**.
4. Define the source code:

- Enter a **Code** (if not automatically generated).
- Select the **Source Code Status** (**Active** or **Inactive**).
- (optional) Enter a Description.
- Select the **List Member Type**:
- **Contact** – Queries contain the NetContact business object.
- **Prospect** – Queries contain the Prospect business object.
- (optional) Enter the **Predicted Response Rate**, **Last Response Date**, and **Last Drop Date**.
- (optional) Select the **Source Code Type**:
- **RunOnce** – The source code will be used only once.
- **RunMany** – The source code will be used more than once.
- **ExternalList** – The source list is an external file. Enter the **External File Name** and **External List Count**.

5. Click **Save**.

Defining inserts

Inserts are the physical items you send to contacts and prospects, such as letters, preprinted collateral, and envelopes. After you create an insert, you can reuse it in other campaigns.

Typically, a source code is linked to each insert item. Multiple inserts (such as letter, brochure and envelope) are combined into a single package for delivery. All responses to the solicitation are then tracked by the source code. This is a useful way to perform market testing because you can choose the most effective creative package or target a test group to receive the package.

In addition, you can track the cost of each insert to determine the return on investment and to monitor budget amounts.

Output processes
To further customize an insert, you can assign queries and output processes that generate customized letters, email messages, faxes, labels, participant lists, and physical file formats in a specific order.

To create an insert
Make sure all applicable queries and output processes are set up.

1. Select **Community > Manage marketing campaigns > Define inserts**.
2. Click **Add** an **Insert**.
3. Define the insert:

- Enter a **Name**.
- (optional) Enter a **Description**.
- Click the Browse icon for **Total** cost information.
- (optional) Select the **Status** (**Available** or **Unavailable**) and **Insert Type**:
- **None**
- **Brochure**
- **Envelope**
- **Form**
- **Postage**

4. Browse to select an **Output Process**.
5. Click **Save**.

Tips
Merges used for inserts must use either the Contact or the Prospect business object as a source.

> **Note:** You can also create a new insert for a solicitation by clicking the **New Insert** button while viewing the solicitation.

> **Note:** When output is generated from Campaign Management using a project process engine, the query and source code specified in the campaign automatically override the query and source code specified in the project process engine definition.

Selecting target groups

Use one or more source lists to identify a targeted group for your message. Basic campaigns typically use one or more of the following types of source lists:

- Lists from previous campaigns – Stagnant lists for repeat audiences. You could use lists of all contacts who were solicited in a previous campaign or only those who responded.
- Queries – Dynamic lists that can change with criteria that you specify. You can choose from queries that are set up in your system or you can create new ones.
- External lists – Purchased prospect lists from other businesses or organizations.

Complex campaigns often use Segmentation to compile lists of contacts. See About Segmentation.

- Make sure all applicable queries are defined.
- Create all applicable segmentation jobs and definitions.
- Create multiple source lists for use with single source codes.

To create a source list

1. Open the campaign.
2. Select a source code.
3. Click the **Source Lists** tab. (If the source code uses an external list, the Source Lists tab is not available.)
4. Under **Add Source List**, choose the **Select Type**:
   - **Segment Definition** – Select a segmentation job.
   - **Solicitation Response** – Select a campaign.
   - **Query** – Select a stored query.
5. Click **Save**.

> **Note:** Throughout Marketing, NetContact is a required business object. Make sure that you include NetContact when you create source lists using queries.

Generating marketing output

Run output processes to generate customized letters, email messages, faxes, labels, participant lists, and physical file formats in a specific order. Running the output process also calculates the non-responses for each appeal. The following output processes are available:

- MS Word merge – Print letters, acknowledgments, and other MS Word documents.
- Email merge – Send email messages to contacts.
- Campaign list export – Generate a list of contacts for an external service or for mass email output.
- RFM definition – Rank records based on Recency, Frequency, and Monetary value.
- Project process outputs – Generate projects for further relationship building.

Important prerequisites for generating output

Before you run output processes:

- Make sure valid output process types are set up.
- We recommend you generate and check a test output to make sure the message and target group is correct.

Business goal

To run output processes, you will:

1. Select the type of output process for the insert.
2. Define the specific output process.
3. Generate output.
4. View the results.

To generate output

1. Open a campaign, appeal, and solicitation.
2. Click the **Source Codes** tab.
3. Select a source code or create a new one.
4. Click **Save**.
5. Click the **Inserts** tab.

6. Select an insert or create a new one.
7. Click **Save**.
8. Click the **Source Lists** tab.
9. Select a source list or create a new one.
10. Click **Save**.
11. Click **Generate Output**.
12. The system displays the status on the **Summary** tab. Click on the link for more details.

> **Note:** If the output is generated at a level higher than source code, output can be generated only once. If the output is generated at the source code level, output can be generated repeatedly.

### Monitoring and measuring performance

Measuring the success of your campaign helps you improve your next marketing effort. Each time the cycle repeats itself, you become more efficient at honing your message and delivering the right message to the right person at the right time.  As a result, you are able to set ever higher goals for your organization, such as acquiring more members, logging more donations, selling more products, or getting your message to a larger audience.

Marketing Suite provides progress and performance feedback at many levels of the campaign. You can view a real-time summary of the campaign's performance, including:

- The progress of each solicitation, source codes that have been generated, and source codes that have been dropped
- The number and type of responses resulting from each solicitation
- The progress, response, and accumulated revenues/costs for each source code
- The actual revenues and costs compared to the target figures for each source code and appeal
- Performance information to guide future actions and campaigns

These powerful performance monitoring features are usually sufficiently rigorous for basic campaigns. For more complex campaigns, use RFM Analytics.

### Tracking responses

Campaign Management gives you the power to track different types of responses to a campaign. This allows your organization to:

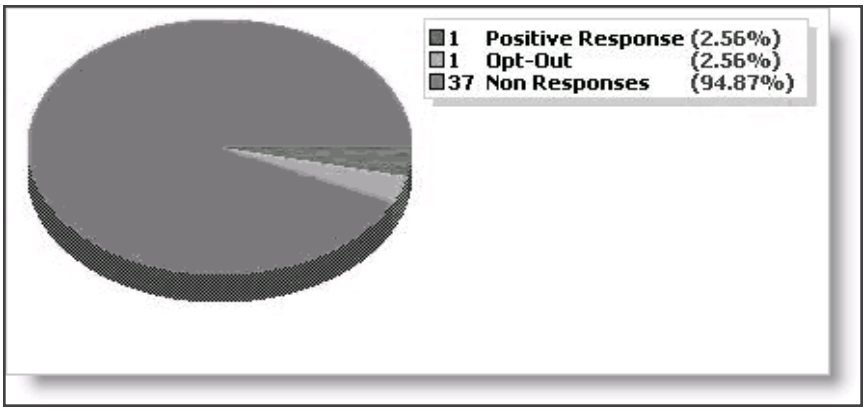
- Maintain a history of all customer responses to marketing efforts and every message that was sent
- Define specific tasks that execute automatically when prospects respond or do not respond to solicitations
- Generate personalized emails, faxes, and letters based on user-defined settings

Responses to solicitations are captured automatically. All tracking areas are synchronized, upon command, to consolidate responses. This tracking information includes:

- Contacts associated with the source code
- Non-responses and opt-outs
- (optional) Financial transactions associated with the campaign (orders, events, gifts, pledges, billings)

Click to view image

Example display of responses to a solicitation




Tip for tracking responses:

- If you plan to track product orders associated with the campaign, make sure all appropriate products are set up.

To track the responses to your campaign, you will:

1. Enter orders and associate them with a source code.
2. Synchronize responses.

3. View the results file or the summary pie chart of each level of the campaign.
4. (optional) Use communications tools to generate messages automatically when a response is received.
5. (optional) Use Process Manager to kick off projects or processes associated with each type of response or target group.

Events responses

You can associate events with your campaign and track responses:

- Event responses are tracked through registration data, not through payment data.
- Registration for multiple event functions that have the same source code are counted as one response. Registrations for multiple event functions that have different source codes are counted as multiple responses.

  Adding an event function to an event registration is counted as a response and affects all revenue and response attributes, such as response dates, response amounts, and response count.

  Removing an event function from an event registration affects total revenue but does not affect other revenue and response attributes such as response dates, response amounts, and response count. Removing an entire event registration decreases response count and revenue.

Dues responses

You can associate payments with your campaign and track responses:

- Payments for multiple products that have the same source code are counted as one response. Payments for multiple products that have different source codes are counted as multiple responses.
- Cancelling a billing fundraising item decrements total revenue, but does not affect other campaign statistics.

  If you change the source code for a payment after running response synchronization, the response is not updated.

Synchronizing campaign responses

Each time you synchronize responses, only those product sales that have occurred since the last time the process was run are processed.

If you synchronize responses for an inactive campaign, no responses are generated. If you change a campaign status to **Active** and then synchronize responses, only those responses entered after activating the campaign are recorded. iMIS ignores the responses entered when the campaign was inactive.

To synchronize responses:

1. Select **Community > Manage marketing campaigns > Define campaigns**.
2. Click **Sync. Responses**.
3. A status message displays noting that the responses are being synchronized.
4. Go to **RiSE > Workflow > Monitor processes** to observe the synchronization's status.

> **Note:** Do not edit a campaign source code after processing responses for the source code.

Creating projects from Campaign Management

You can easily create projects that correspond to your campaign and manage them in Process Mgr. Create these projects by defining, editing, or selecting the following information for the new projects:

- A query
- A project process output
- A source code

To create projects from a campaign

1. Select **Community > Manage marketing campaigns > Define inserts**.
2. Select an insert that already contains a project output process, or create a new one.
3. Click the browse icon to select the **Output Process** or click the **Processes** tab and select **New Insert** to define a new process.
4. For a new process, click the **Sources** tab and browse for the **Source Data Query** and **Template Name**. Click **Save**.
5. Click **OK**.
6. Click **Generate Output**.

7. The system displays the status on the **Summary** tab. Click on the link for more details.

> **Note:** When output is generated from Campaign Management using a project process output, the query and source code specified in the campaign automatically override the query and source code specified in the project process output definition.

Acting on responses

You can easily set up your campaign so that specific tasks are generated when a prospect responds or fails to respond to a solicitation. This helps you to:

- Acknowledge positive responses
- Send a cross-promotional solicitation to positive responders
- Initiate reminders to prospects who do not respond to initial solicitations
- Make sure that prospects who opt out of the campaign do not receive further solicitations

To create a response stage

You can define response stages in the source code so a contact moves through campaign stages (solicitations) as they respond to solicitations.

1. Open a campaign, appeal, and solicitation.
2. Select the **Source Codes** tab and select a source code.
3. Click the **Source Lists** tab.
4. In the Add Source List area, **Select Type** of **Solicitation Response**.
5. Select a campaign.
6. For each campaign response stage:

- Select an **Appeal**.
- Select a **Solicitation**.
- Select a **Source Code**.
- Select a **Comparison** value (**Equal** or **Not Equal**).
- Select a response **State**:
- **Solicited** – Contact has been solicited but has not responded.
- **SolicitedResponse** – Contact has responded to a solicitation.
- **UnsolicitedResponse** – Contact has responded but was never solicited.

- **OptOut** – Contact has opted out of the solicitation and will be excluded from any future lists for this campaign, appeal, and source code.

  > **Note:** If a source code is provided with the response, the system assumes the contact was solicited.

- Click **add**.
- Select a **Global Operator** that applies to all solicitation state expressions (**AND** or **OR**).

7. Click **Save**. The solicitation response displays in the Source Lists.

   > **Note:** You can choose to automatically assign source codes to responses in Set up campaign module.

   To view responses

   Before you can view responses, you must:

- Create response stages
- Synchronize the responses

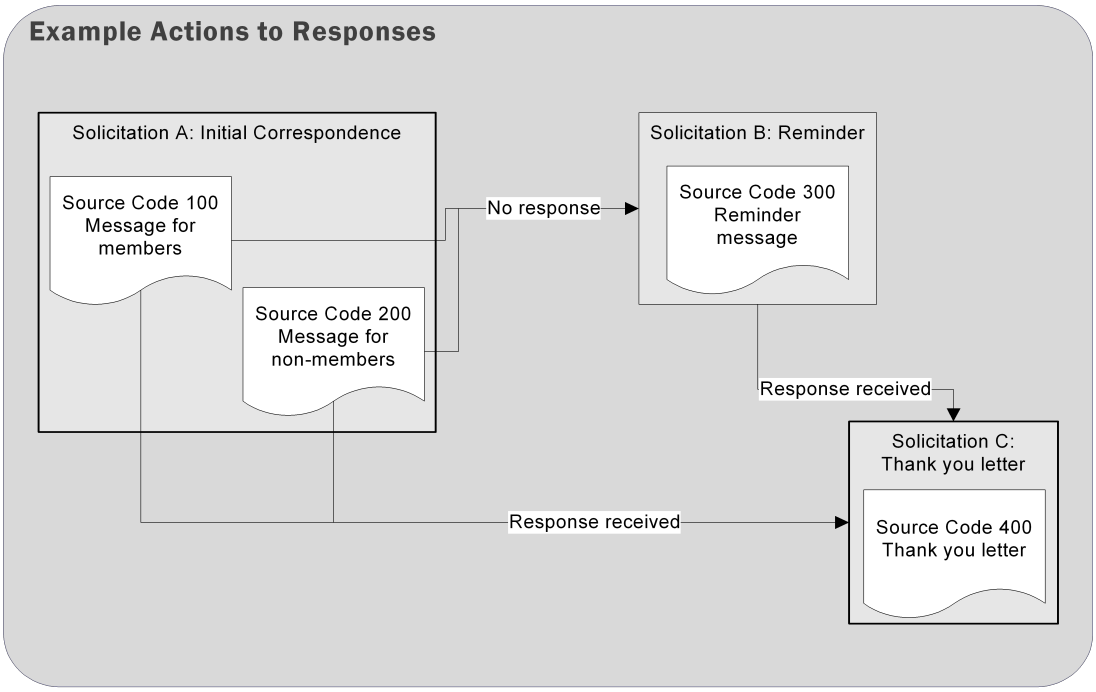
1. Select **Community > Manage marketing campaigns > Record responses**.
2. Find the desired contact. The system displays a list of responses for that contact by source code, appeal, and campaign.

   Example: Response actions

   The following campaign is defined so that a response to Solicitation A (initial correspondence) automatically moves the contact into Solicitation C (thank you letter). After a period of time (or a non-response to Solicitation A), the contact automatically moves into Solicitation B (reminder). A response to Solicitation B automatically moves the contact into Solicitation C.

   Click to view image

Response process example




## Basic campaign example: Professional conference

The following is an example of a basic campaign for a professional conference. This example follows the business goals for Campaign Management:

Planning the campaign

The ABBA professional society hosts a major conference each year. The goal of the Annual Conference Campaign is to recruit 20% more attendees than last year.

Overhead costs are tracked at the appeal level. For the first appeal, the first two solicitations have different creative concepts to test effectiveness. The more successful concept will be used for the brochure and conference signage. One source code is assigned to each solicitation.

The hierarchy for this appeal is simple:

Campaign = Annual Conference

Appeal = Save the Date postcard

Solicitations = Creative A to Segment 1 (source code 000134), Creative B to Segment 2 (source code 000135)

First Mailing
The first mailing is a Save the Date post card. The goal is to get people to put the conference date on their calendar and to plan to attend. Because there is not a true call to action associated with this mailing, it is an ideal situation for testing a creative concept. There will be inquiries from:

- People who want to register right away
- Companies looking for sponsorship opportunities
- Companies looking for exhibitor opportunities

These inquiries indicate the more successful concept to be used throughout the campaign.

Second Mailing
After determining the more successful concept, ABBA incorporates the concept into the full conference brochure. The brochure contains sections on schedule, tracks, speakers, and entertainment options and is the most important mailing in the campaign.

The basic structure for this appeal is:

Click to view table

| Campaign | Appeal | Solicitation | Source Codes |
|---|---|---|---|
| Annual Conference | Full Conference Brochure | Past Attendees | 000234: Attended last year<br>000235: Attended year before<br>000236: Attended earlier |
| | | People who have never attended | 000334: Members<br>000335: Non-mem- |

| | | | |
|---|---|---|---|
| | | | bers |

So far, ABBA has a sound plan:

- The appeals help them separate out invoices for each mailing to determine the true return on investment for each one.
- Solicitations break down the mailings into logical and broad groups of records with varying estimated response rates. It is likely there will be a higher response rate from past attendees than from people who have never attended.
- Source codes further break down the groups for customized mailings and different estimated response rates. The source codes can be seen as declining levels of expected positive responses.

Defining the campaign

Campaign definition is straightforward:

- Name = Annual Conference
- Status = Active
- Start date = today's date
- Campaign type = Event
- Predicted end date = today's date + three months

Defining the appeals

Define each appeal:

- Name = Save the date postcard
- Status = Active
- Start Date = today's date
- End Date =  today's date + three weeks
- Predicted Response Rate = 10%
- Name = Conference brochure
- Status = Active
- Start Date = today's date + 6 weeks
- End Date = today's date + 3 months
- Predicted Response Rate = 30%

Defining the solicitations

Define each solicitation similarly to the first one:

- Name = Conference Save the Date Postcard Creative A
- Status = Active
- Start Date = today's date + 1 week
- End Date = today's date + 1 month
- Predicted Response Rate = 5%

Specifying communication efforts

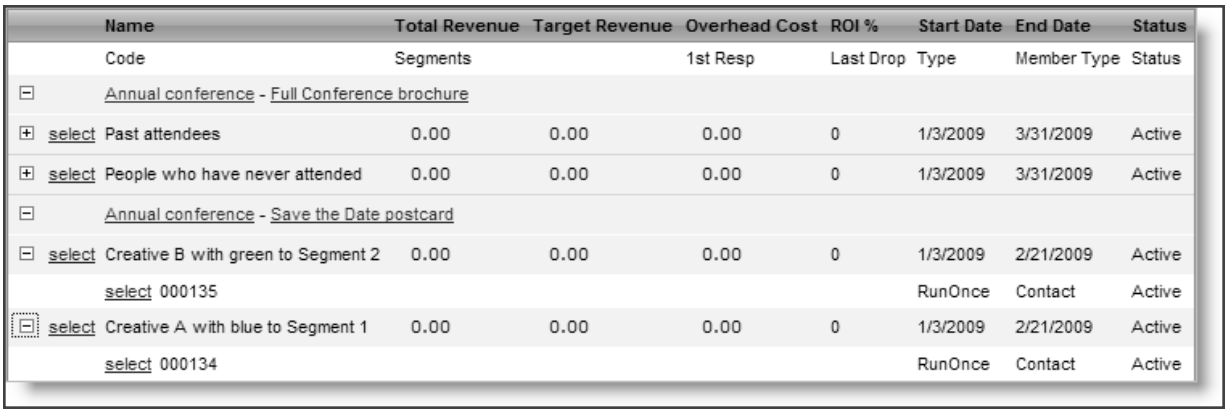
This is the point at which the target groups, inserts, source codes, and packages are defined.

- Select target groups
- ABBA will use the same lists as last year: Segment 1 and Segment 2.
- *Create inserts*
- Create inserts for each mailing similarly to the first one:
- Name = Annual Conference Template_NS_Segment1
- Status = Active
- Insert Type = None
- Define source codes
- The inserts will be attached to a source code and combined as packages for each mailing. Set up source codes similarly to the first one:
- Code = 000134
- Description = Segment 1
- Status = Active
- Predicted Response Rate = 7.5%
- Target Revenue = $7500 (from attendees who want to register immediately)
- Source Code Type = Run Once
- List Member Type = Contact
- List Type = Segment Definition
- Add Segment 1
- Attach insert to a package: Add Conference Save the Date Postcard Creative A.
- Generate output
- Generate output for the first appeal to produce labels for the postcards and to ensure that responses will be tracked:

- Open the appeal and generate output.
- Output process = Postcard labels (from list of available choices)
- Repeat for the second appeal when appropriate.

Example display

This example campaign will display similarly to:



| | Name | Total Revenue | Target Revenue | Overhead Cost | ROI % | Start Date | End Date | Status |
|---|---|---|---|---|---|---|---|---|
| | Code | Segments | | 1st Resp | Last Drop | Type | Member Type | Status |
| ⊟ | Annual conference - Full Conference brochure | | | | | | | |
| ⊞ select | Past attendees | 0.00 | 0.00 | 0.00 | 0 | 1/3/2009 | 3/31/2009 | Active |
| ⊞ select | People who have never attended | 0.00 | 0.00 | 0.00 | 0 | 1/3/2009 | 3/31/2009 | Active |
| ⊟ | Annual conference - Save the Date postcard | | | | | | | |
| ⊟ select | Creative B with green to Segment 2 | 0.00 | 0.00 | 0.00 | 0 | 1/3/2009 | 2/21/2009 | Active |
| | select 000135 | | | | | RunOnce | Contact | Active |
| ⊟ select | Creative A with blue to Segment 1 | 0.00 | 0.00 | 0.00 | 0 | 1/3/2009 | 2/21/2009 | Active |
| | select 000134 | | | | | RunOnce | Contact | Active |

## Getting Started with Complex Campaigns

Complex campaigns for the purposes of this document:

- Contain many appeals and related solicitations
- Use many source codes
- Often build on the targeting and analytical data generated by Segmentation and RFM Analytics

### Setting up complex campaigns

To set up a complex campaign, follow this process for best efficiency.

In Segmentation

1. Write the universe query that defines who receives the marketing effort.
2. Create the segmentation job or optionally, attach the universe query to the job.
3. Write the segment queries that will separate your universe into smaller target groups, such as by membership category or by transaction types or by event.
4. Create the segment(s) by attaching segment queries to each segment.
5. Populate the segments.

In Campaigns

1. Create the insert(s).
2. Set up the campaign, appeals, solicitations and source codes (one source code per segment).
3. Attach the segments and inserts to the source codes.
4. Generate output.

Tips for setting up complex campaigns

- Plan first. Building a spreadsheet of the basic structure early makes it easier to test and train users.
- Think about data criteria. Most marketing efforts use inclusion and exclusion criteria to generate their list within their system. In fundraising organizations, this is particularly so. How are you going to determine what that criteria is and how are you going to manage the information as customers 'opt-in' and 'opt-out' of different marketing activities?
- Think end-to-end marketing. Many marketing efforts are not isolated campaigns but are part of a broader, cyclical plan. Be prepared for that and factor it into your planning.
- You can track budgets at the appeal level or the source code level. This tracking allows you to define overhead costs and the cost of individual inserts. The method you use to track budgets also determines how costs are entered, recorded, and calculated within the Campaign Management module.
- If your organization does not use complex segmentation, set the budget level to **Appeal**.
- If your organization uses complex segmentation, especially with insert testing, set the budget level to **Source Code**.
- Decide whether you need a single source code or several:
- Newsletters and similar mailings are rarely personalized beyond the mailing label attached to the piece. For this reason, although a template segmentation job is probably going to be used, a single source code will be assigned for each issue. This may be printed on the newsletter or mailing but it may not be. The issue number or cover article may be enough to be able to track the source code at the customer level.
  In this case, multiple segments = a single source code.
- Marketing efforts that are less informational and more "call-to-action oriented" (targeted marketing campaigns) require a high level of personalization. For these types of campaigns, each segment should be assigned a unique source code.
  In this case, individual segments = distinct source codes.

- If you want each RFM score to be a segment, assign a source code to each segment.
- If your campaign has only one source code, you can:
- Add one or more inserts (including more than one of the same insert).
- Generate customized lists of contacts and prospects using any combination of multiple source lists.
- Create all applicable inserts, queries, and segmentation jobs before you create a source code.

### About Segmentation

Use Segmentation with Campaign Management to group contacts and prospects into targeted audiences. With Segmentation, you can:

- Create targeted contact and prospect lists according to demographic and behavioral patterns or other include/exclude criteria.
- Split segments into multiple lists and prioritize the segments.
- Eliminate duplicates in lists.
- Perform controlled and repeatable list pulls.
- Create n-Select or random select segments for message or delivery testing.
- Get counts for communications collateral before production.
- Assign unique source codes to segments to effectively analyze an effort's success.
- Copy segmentation jobs and purge inactive jobs.
- Reuse query definitions for multiple campaigns.

Segmentation drives the criteria that will be used to select and segment those customers who will receive our marketing efforts. A segmentation job is a set of queries that are run in a specific order and result in the selection of the first occurrence of each matching record.

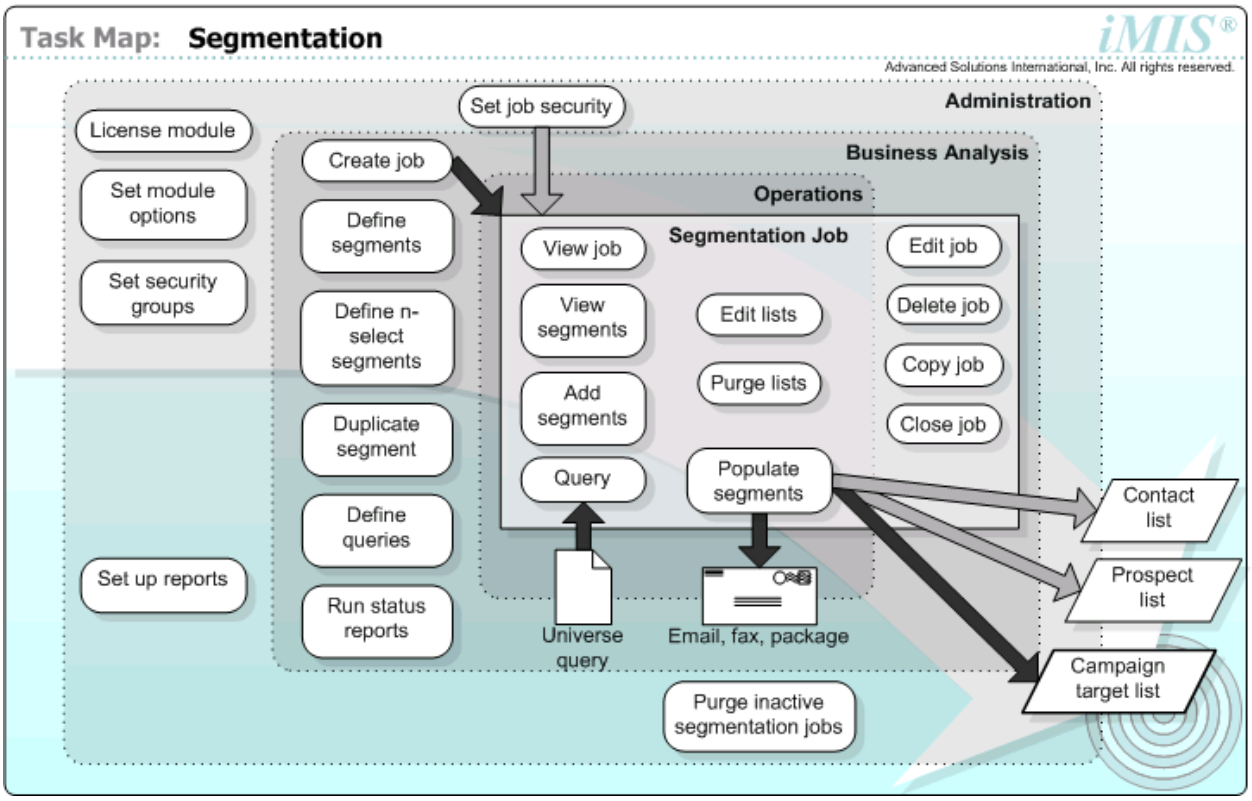
Segmentation data is prepared and run before it is attached to its source code and the final output is generated. This allows for data criteria testing, test or dummy selects, or to get counts before the final list is prepared. And, because the data can be purged and lists can be run again, you can continue to target your message.

Segmentation jobs have two levels of hierarchy:

- The job: the job can have a 'universe query' attached to it. It's not essential that a universe query be attached to a job.
- The segment: the segment definition also has a query associated with it. This query is called the 'population' query and contains the minute criteria we need to define who falls into which segment.
  The steps to create segmented lists are:

1. Create a segmentation job.
2. Add, split, and/or delete segments.
3. Populate the segments to create lists.
   Task Map: Segmentation
   This diagram maps out the core tasks in Segmentation by the approximate order they occur (top-left to bottom-right) and by the organizational area that usually performs them.

   Click to view image
   Task map: Segmentation




## Viewing segmentation jobs

You can view all segmentation jobs or you can filter your view of segmentation jobs by creation date, creator, description, name, or by active jobs.

If you filter the segmentation jobs view by description, all segmentation jobs with matching description fields display.

If you filter the segmentation job view by creation date, you can view segmentation jobs created on a specified date or during a specified date range:

- To view segmentation jobs created on a specified date, enter the date.
- To view segmentation jobs created during a specified date range, enclose each date in double quotes and separate the dates with a comma (for example, “1/4/2008,” ”1/8/2008” specifies jobs created January 4, 2008 through January 8, 2008, inclusive).

Creating a segmentation job

A segmentation job contains the job definition, security settings, and segment definitions used to generate contact or prospect lists.

There are two types of segmentation jobs:

- Contact jobs – All queries for a Contact segmentation job must contain the Contact business object as a source.
- Prospect jobs – All queries for a Prospect segmentation job must contain the Prospect business object as a source.

> **Note:** When you set the type as Contact or Prospect, the system automatically defaults to the correct business object.

Each segment is assigned an execution order to make sure duplicates are not generated. What is often different from appeal to appeal is the exclusion criteria you apply.

> **Note:** Note: After selecting an additional source table, you must define a Custom relationship between the tables; in most cases, you can use the ID field for the join.

- Universe queries:
- A "universe" query defines the entire population of contacts for a segmentation job. When a universe query is present, a contact must be a member of the universe query for the

contact to be included in any of the segments within the segmentation job.

- If a universe query is defined for the segmentation job, it must be included as a source for any segment-level queries. The system automatically populates this. Universe queries are required only when defining n-Select segments.
- > **Note:** When adding a pre-existing universe query, check the source to make sure that the Contact business object is one of the sources. If Contact is not a declared source, the query will fail.

- n-Select segments:
- n-Select segments list contact/prospect records returned by a selection filter in a number (n) of segments, with an equal number of contacts or prospects in each segment.
- To create n-Select segments, you must include a universe query in the segmentation job. The universe query can include the results of a previous segmentation job as a source.
- > **Note:** If you have defined n-Select segments for a segmentation job, you must create these segments before you can populate the lists.

- To ensure that your n-Select segments are successfully populated, make sure you do not exceed the total number of records returned by the universe query when you define the n-Select segments. For example, if the query returns 500 records, you can define n number of segments, each consisting of x number of contacts or prospects per segment, as long as n times x is less than or equal to 500.
- Exclusion segments:
- Exclusion segments are any segments in the segmentation job that are not linked to a source code. Since each record can only be retrieved once, creating an exclusion segment in the segmentation job results in any records retrieved by an exclusion segment not being retrieved by later segments. For example, if two appeals are being dropped in a short period of time, you may want to include one or more segments in one appeal but not in the other.
- Exclusions are applied at the segment level, and they can appear anywhere within a list of included segments, with these exceptions:

- Universal exclusions (No Mail Flag or Bad Address) should be the first segments entered in the segmentation job.
- Include segments have a link to a defined source code and should be defined after any universal exclusion segments.
- If you specify a number of random records to return for a segment, the resulting list may contain fewer than the specified number of records. The segments are first populated and then checked for duplicate contacts or prospects. If duplicates are found, they are removed, and the segments from which they were removed will contain fewer than the specified number of records.

To create a segmentation job

1. From **Community**, select **Manage segmentation > Define segments**.
2. Select **Add a Job** and enter the job definition.
3. From the drop-down menu, select the **Type**.
4. (optional) Apply a filter (universe) query to the job. You can create a new query or use an existing query. These queries can be added later.
5. (optional) To define and create **n-Select** segments, click the n-Select tab. Enter the number of segments and the number of contacts per segment.
6. (optional) To modify the security settings for the job, click the **Security** tab.
7. (optional) To define explicit segments, click **Segments**:
   - Enter segment definitions.
   - Select an existing query or create a new query.
   - (optional) Select the number of random records to use to populate the segments.
   - (optional) Modify the **Priority**.
8. Select **Save**.

> **Note:** Add or edit segments before closing the job.

Creating source codes based on segment definitions

Before you begin

- Create the source lists for which you want to create source codes.
- Create the segmentation job and add segments to the job.
- Generate output so that the lists are populated.

To automatically create source codes based on segment definitions

1. Select **Community > Manage marketing campaigns > Define campaigns**.
2. Open a campaign, appeal, and solicitation.
3. Select a solicitation.
4. Click **Create Source Codes from List**.
5. Create the source codes:
   - If you want to build source codes based on solicitation lists, click an available solicitation to add it to the **Current Solicitations** list and then click **Create Source Codes**.
   - If you want to build source codes based on segments, click the **Create from Segments** tab, and then click an available populated segmentation job to add it to the **Select Segmentation Definition** list. If you select Job Name, you automatically select all the segments in the job, or you can pick and choose among the segments by selecting just the segments from which you want to create source codes. Click **Create Source Codes**.
6. To view the automatically created source codes, click the **Source Codes** tab on the campaign.

Reusing and copying segmentation jobs

By reusing segmentation jobs or copying and editing them, you can work efficiently. After a targeted list pull, you can save the job and refresh the list to run it again. As the campaign progresses, you can copy the job, rename it, and adjust the segments to be included.

Consider creating segmentation templates that can be copied and reused with minimal manipulation. If you build a template with the core of the segmentation requirements, the user can copy it and modify it at any time.

Tips for copying a segmentation job

- All segments in a segmentation job are copied when the segmentation job is copied. However, any contacts or prospects contained in a segment are not copied. You must populate the segments in the copied segmentation job to generate contacts or prospects to fill the segments.
- When you copy an existing segmentation job, for convenience the new segmentation job is named "Copy of OriginalJobName" (for example, "Copy of Contacts"). Rename the copied segmentation job and edit it as desired.

- If any segment editor pages from the original job were open when the job was copied, these windows will still reference the original job. To edit the segments in the copied segmentation job, you must select the **Segments** tab after copying the segmentation job and open the segments individually.

To copy a segmentation job

1. Select **Community > Manage segmentation**.
2. Open an existing job. Click **Save As** and rename it.
3. Open the new job.
4. Edit, add, and/or remove segments.
5. Adjust query filters.
6. Click **Populate Segments**.

Example: Creating a segmentation job

In this example, we want to mail catalogues to individuals who have not yet registered for conference and exclude those who have registered.

Exclude: Already Registered for the Conference

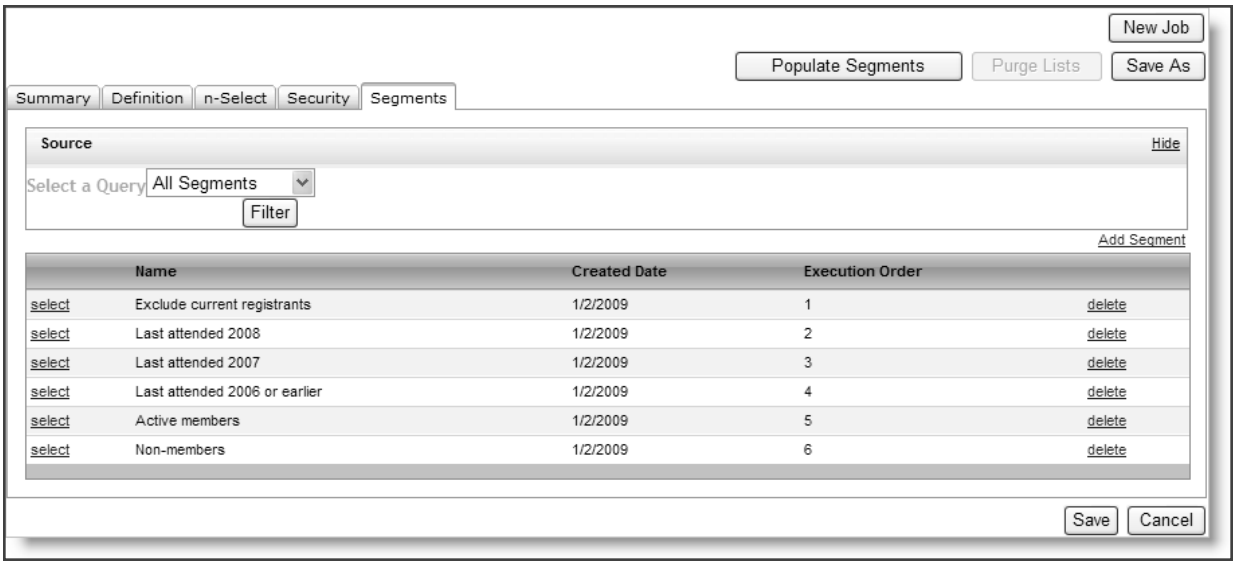
Include:

- Last attended 2008
- Last attended 2007
- Last attended in 2006 or earlier
- Never attended – Members
- Never attended – Non-members

Execution order is important. We want to first exclude those who have registered, and then populate the list with contacts in each segment who have not registered.

Click to view image

Example: Segmentation job




Managing segments in a job

Viewing segments

You can view all segments or filter your view of segments by creation date, description, or name.

1. Select **Community > Manage segmentation**.
2. Open the segmentation job.
3. Select the **Segments** tab.
4. (optional) Select a filter (by creation date, description, or name) if needed. By default, all segments display.
5. Select the segment to view. The segment definition displays.
6. If the segments have been populated, select the **Results** tab to view the segment contents.

Adding and editing segments

A segment definition is used to generate contacts or prospects based on demographic behaviors (for example, gender, location, age) and/or transactional behaviors (for example, attending events, purchasing books, or making donations).

**Note:** Note: After selecting an additional source table, you must define a Custom relationship between the tables; in most cases, you can use the ID field for the join.

**Note:** Note: Add or edit segments before closing the job.

1. Select **Community > Manage segmentation**.
2. Open the segmentation job.
3. Select the **Segments** tab and add a new segment.
4. Enter the segment definition.
5. Using the **Population** buttons, select an existing query or create a new query.
6. (optional) Select the number of random records to use to populate the segments.
7. (optional) Modify the **Priority**.
8. Click **Save**

Copying segments

If there is an existing segment definition that is similar to the segment definition you need to create, you can duplicate the existing segment definition and modify it as needed.The new (duplicated) segment appears in the same segmentation job as the original.

If you add or insert a new segment in an existing segment, you must manually change the order numbers of all the segments within the segmentation job.

1. Select **Community > Manage segmentation**.
2. Open the segmentation job.
3. Select the **Segments** tab.
4. (optional) Select a filter (by creation date, description, or name). By default, all segments display.
5. Select the segment to view.

- The segment definition displays. The **Duplicate Segment** button does not display until the segment definition has been saved and the segment has been reopened in the **Segment Definition Editor** window. The **Duplicate Segment** button does not display when a segment definition is initially created and saved.
- If you do not see the **Duplicate Segment** button enabled when you open an existing segment definition, either you lack permissions to edit the definition or the lists have not been generated for the segmentation job.

6. Click **Duplicate Segment**.

- The **Segment Definition Editor** page closes and the new (duplicated) segment displays in the segments list directly above the segment that was duplicated. Both segments will have the same name.

7. Open the new (duplicated) segment.
8. Edit the segment definition.
9. Click **Save**.

Splitting segments

You can split a segment into multiple segments (A/B split) by creating additional segments that use the same query.

1. Define the segments in sequence (using the same query).
2. Run the query to determine the segmentation count.
3. After deciding how many records should be retrieved for each segment, retrieve each segment and specify the count for each segment.

> **Note:** Do not specify a count for the last segment; the last one will return all of the unretrieved records.

Deleting segments

You can delete a segment from a segmentation job if the segments have not yet been populated. To delete a segment from a job after the segments have been populated, you must first purge the lists (see "Purging lists").

> **Warning!**
>
> Deleting a segment that is referenced in a campaign source code renders that source code unusable.

Populating segments

After you create a segmentation job and add segments, populate the segments in the job to create contact or prospect lists.

When segments are populated, iMIS ensures that segments are not populated with any record that would be a duplicate of a record in another segment that is defined for the same segmentation job.

Populating segments can be a very lengthy operation. Segments are populated as a workflow task; you can continue using iMIS for other tasks while segments are being populated.

You cannot view the results in the populated segments until the segment population workflow task has been completed.

To repopulate segments that have already been populated, you must first purge the lists and then populate the segments.

After the segments have been populated, you cannot edit the segment definitions. To edit a segment definition after the segments have been populated, you must first purge the lists.

1. Select **Community > Manage segmentation**.
2. Open the segmentation job.
3. Click **Populate Segments**.
   - If no segments are defined, an error message displays.
   - If the segments have already been populated, **Populate Segments** is disabled.
4. Select the segment to view.
5. Select the **Results** tab to view the segment contents.

Managing segmentation lists

Editing lists

After lists have been populated, you can add contacts or prospects as well as disable any that are already listed (contacts and prospects are enabled by default).

Verify that contacts or prospects to be added are not already in the list. No duplicate checking runs for manually added contacts/prospects.

To edit a contact or prospect list:

1. Select **Community > Manage segmentation**.
2. Open the segmentation job.

3. Select **Segments**.
4. Select the segment that contains the list to be edited.
5. Select the **Results** tab.
6. (optional) To add a contact or prospect, click **Add Contact**.
7. (optional) To enable or disable a contact or prospect, select or deselect the checkbox displayed to the left of the contact or prospect.
8. Select **Save**.

Purging lists

Purge lists to remove those that you no longer need or to repopulate segments.

> **Note:** The **Purge Lists** button is available only if the segments are populated.

To purge segmentation lists:

1. Select **Community > Manage segmentation**.
2. Select the segmentation job.
3. Click **Purge Lists**.

Using external lists

Organizations may use external lists. External lists are brokered with individual list agreements that govern how long and how the use can be used.

Sometimes lists are given to the organization with all names and contact information attached. Other times, lists are used once with the organization only seeing the names of the contacts within it when the customer responds.

Lists with names can be imported into the iMIS Acquisition Management tool. Campaigns and Segmentation can query this list and generate lists from it. One of the most important segmentation considerations is being able to test against different list rentals, therefore, it's important to have a testing model.

Lists without names can still be tracked in Campaigns. At the source code level, assign the quantities included in the list rental. Track the list rental/purchase cost at the package level. Remember that the package gets attached to the source code. Different packages

have different list costs so it's important to apply the cost to the package to properly calculate the ROI.

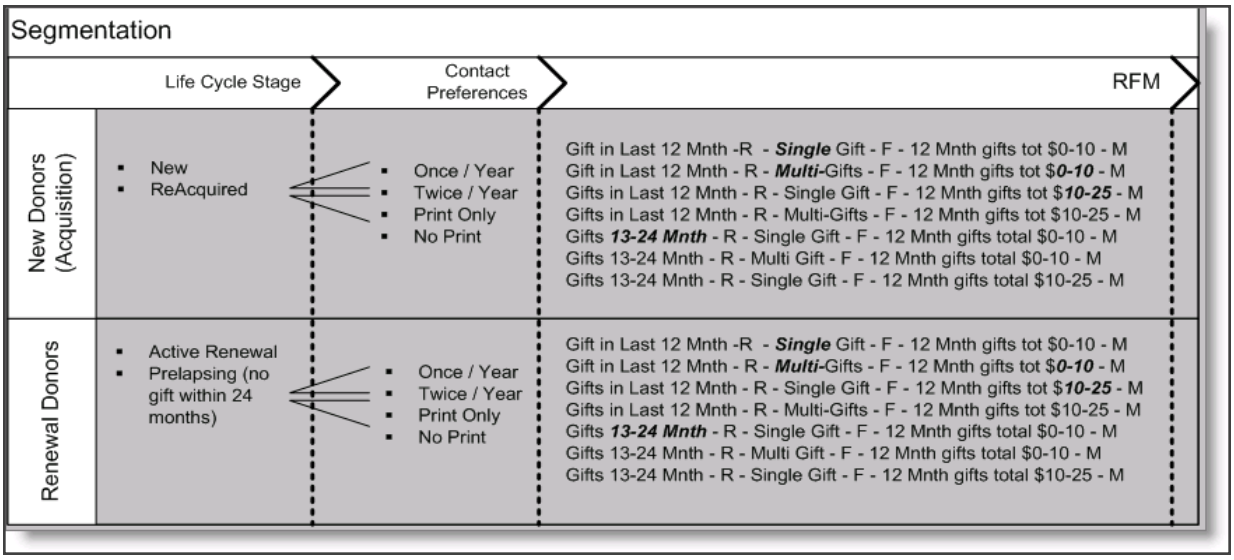
Example: Donor Segmentation

The following is an example of how a segmentation strategy can appear or be mapped during implementation. This example shows one audience that is separated into "life stages." It relies upon keeping track of customer contact preferences and uses RFM as the fundamental segmentation strategy.

For this example, Life Cycle Stage and Contact Preferences are the include/exclude selection criteria. RFM segment definitions will apply to everyone who has who has been selected during core criteria segmentation.

Click to view image

Example: Life cycle stages




Example: Event marketing

Organization XYZ is preparing to market its annual conference. The venue is booked and sponsors and expo sales are under way. It's time to start raising awareness for the event and getting event registrations through the door.

In this example,there are two different marketing efforts that the organization runs to meet these goals. The first is one tests a creative concept for the event. They want to understand which creative concept is more likely to get people to register.

After the creative concept is finalized and 80% of the speakers have been set, the organization is ready to recruit attendees by mailing the event brochure.

- **Marketing Goal** - To recruit attendees for the annual conference.
- **Marketing Objective** - To recruit 500 full conference attendees, 200 partial attendees. The goals and objectives for this campaign are fairly straight forward.  But accomplishing these goals is more complex.
- **First Mailing: Post Cards** - First, XYZ does an A/B Split of the file to understand which creative concept is the better one to use for the rest of the conference marketing series.
- **Second Mailing: Full Brochure** - The second mailing is where we apply some value ranks to our mailing. Full conference brochures are expensive and our goal is to cut numbers to save costs from groups who are least likely to respond.
  Planning the campaign:

- Segmentation will be used in two different ways:
- Mailing 1 = Simple Split
- Mailing 2 = Ordered from most to least likely to respond
  Click to view table

| Campaign | Appeal | Solicitation | Source Code |
|---|---|---|---|
| Annual Conference | Save the Date Postcard Mailing | Fountain Creative A | Source Code |
| | | Dessert Creative B | Source Code |
| | Full Brochure Mailing | Past Attendees | Last Attended 08 |
| | | | Last Attended 07 |
| | | | Last Attended 06 or earlier |

| | | | |
|---|---|---|---|
| | | Non-Attendees | Active Members |
| | | | Non-Members |

The process to accomplish this scenario is:

1. Create a segmentation job with an A/B split.
2. Build the campaign structure for the event.
3. Generate output and pickup file for the solicitation.
4. Review responses to choose most successful concept.
5. Create a segmentation job with all segment definitions.
6. Mail brochure to list.
   Creating a segmentation job with an A/B split
   Add a new segmentation job:

- Name = Annual Conference
  Create a new query:

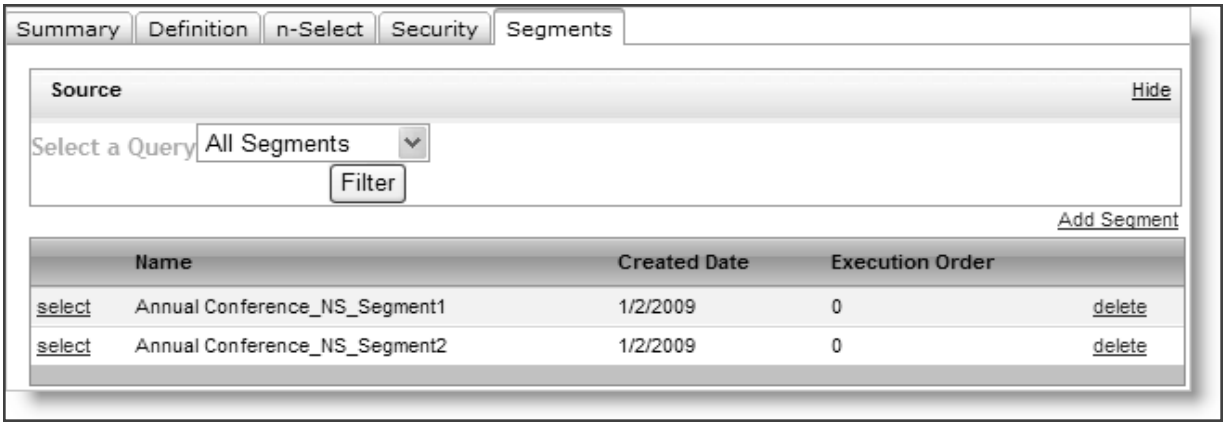
- Source - NetContact.
- Filter - Is A Company = No.
  Define the n-Select segments:

- **Number of Segments** = 2
- **Use all query results** = selected
- **Contacts per Segment**: Enter the number of records at which you want to cap your segments. If you want two random groups with no cap, leave the 'Use All query Results' checked and enter the number of segments as two.
  Populate the segments.

  Two segments are created; both have an **Execution Order** of zero.

  Click to view image

Example: Conference post card list with A/B split




Building the campaign structure for the event

Define the campaign structure:

- Name = Annual Conference
- Appeal = Save the Date postcard
- Solicitations = Creative A and Creative B

Attach the populated segments to the campaign:

- Select the job that contains the A/B split.
- Select a source code. The source code is attached automatically as the source list for the query.
- Select an insert and attach it to the source code.

Generating the output and the pick-up file

After the list and insert are attached, generate the output on the source code. This process will:

- Update the pie chart and metrics for non-responders
- Produce the output defined in the insert

Setting up the brochure mailing

The brochure mailing will use many different segments. Each segment will become a source code.

Click to view table

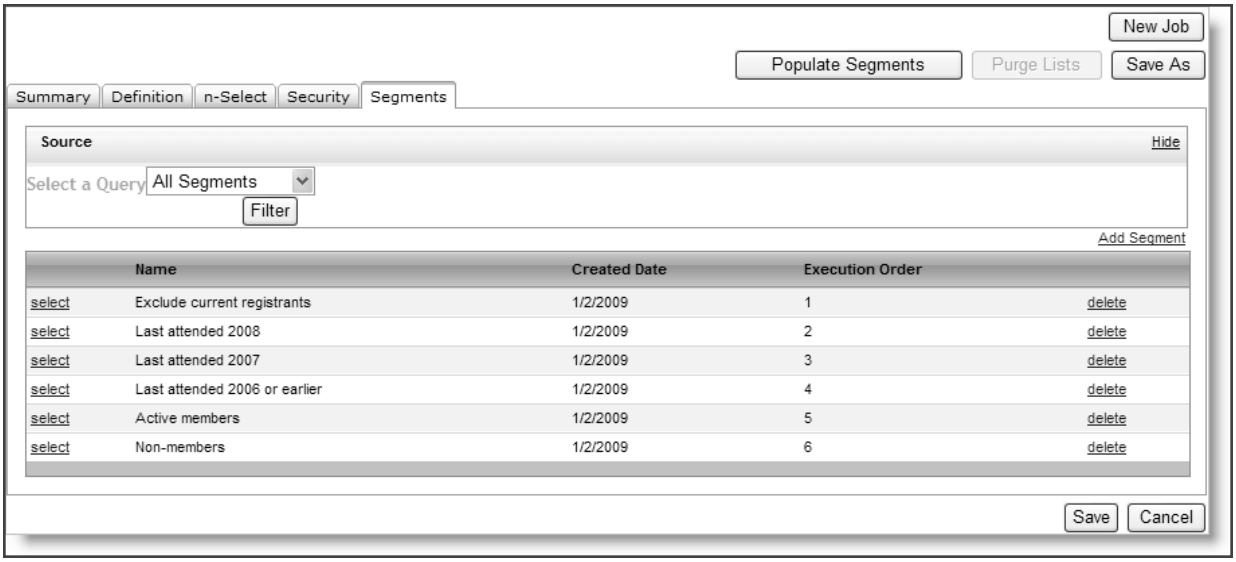
| Campaign | Appeal | Solicitation | Source Code |
|---|---|---|---|

| Annual Conference | Full Brochure Mailing | Past Attendees | Last Attended 08 |
|---|---|---|---|
| | | | Last Attended 07 |
| | | | Last Attended 06 or earlier |
| | | Non-attendees | Active Members |
| | | | Non-members |

Open the segmentation job for this mailing and click the Segments tab. Your display may look like the following example.

Click to view image

Example: Segments list




Set up six segments.

The first segment is called **Exclude - Current Registrants**. It includes a query that produces a list of people who are already registered for the conference. By creating this first segment, XYZ will be able to use this job repeatedly.

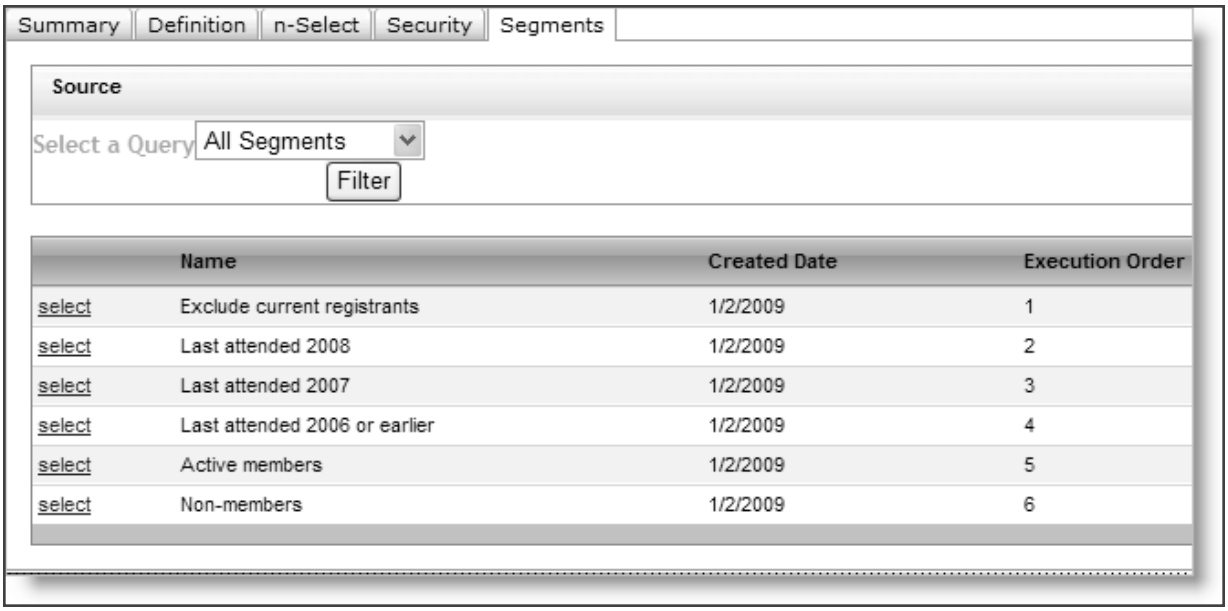
The **Execution Order** determines the order in which records will be selected. A loyal member has probably:

- Registered for this year's event
- Attended last year's and prior years
- Renewed their membership so they're an active member
  Therefore, attach all of the segments to the job except the first. Duplicates in the file will be checked automatically to make sure that a record is only selected once.

- Select everyone who has registered for the event (don't mail them).
- Of the records left in the database, select everyone who registered last year. That segment is the first source code and are also the most likely people to respond this year
- Of the records left in the database, select everyone who registered the year before last. That segment is the second source code and are the second-most likely to respond this year
- Of the records left in the database, select everyone who attended two years ago. That segment is the third source code.
- Continue with the remaining segments.

Creating a segmentation job with all segment definitions

1. Add a new segmentation job.
2. Define the first segment by writing a simple query that defines who should be selected.
3. Define the remaining segments.
4. Assign each segment an execution order that determines the order in which to execute the duplicate checking process.
5. Populate the segments.
6. Click to view image




Adding to the campaign structure

- Campaign = Annual Conference
- Appeal = Full Conference Brochure
- Solicitations:
- Past attendees
- People who have never attended
- Source Codes (first mailing):
- Last attended last year
- Last attended two years ago
- Last attended three or more years ago
- Source Codes (second mailing):
- Never attended (members)
- Never attended (non-members)

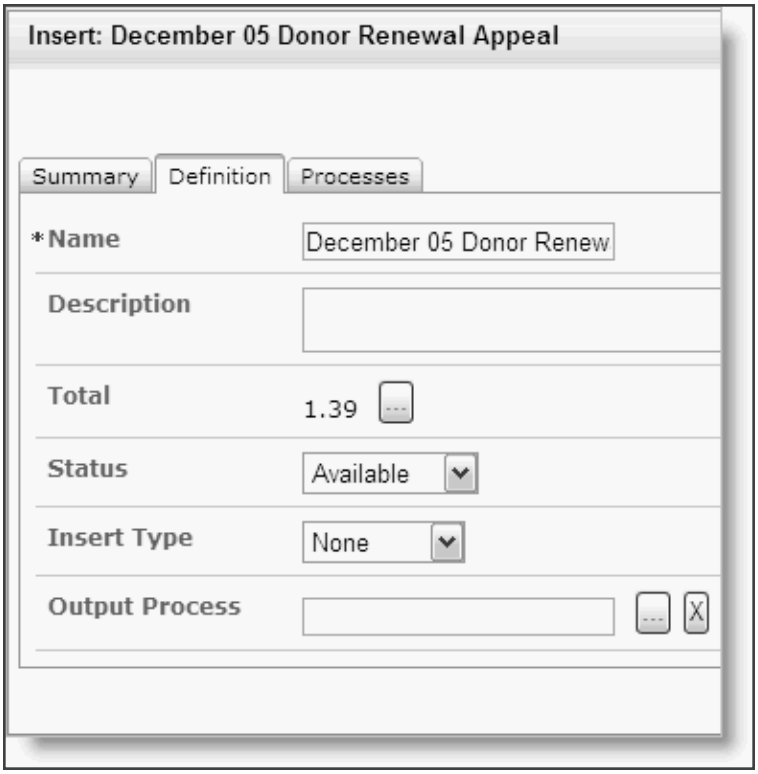
**Tracking costs for campaigns**

To track costs at Appeal or Source Code level

1. Select **Community > Manage marketing campaigns > Track campaigns**.
2. Click **Show / Hide Appeals** and open an appeal.
3. Go to the **Profile** tab and open the **Overhead Cost** panel.
4. Add an additional cost and click **Save**. The overhead cost calculation increases.

To add cost to an insert

1. Select **Community > Manage marketing campaigns > Define inserts**.
2. Select an Insert.
3. Click the browse button next to **Total**.
4. Enter a value in the **Cost Code** and a cost per piece in the Amount.
5. Click + for each cost code you want to add.
6. Click **OK** to save the values. Confirm that the **Total** on the Insert window now shows the sum of the values entered on the **Costs** pop-up.
   Click to view image
   Sum of inserts




Tips

- Operational costs should be tracked at the Appeal or Source Code. The choice of tracking overhead costs at the Appeal or Source Code level is made in **Campaign Management > Set Up Module**.
- Package costs include any items that are applied to the actual insert or package: Those are tracked with the insert costs.

- Overhead Costs refer to any cost that is applied to the mailing or marketing effort as a whole. These costs tend to be difficult to break down on an item by item or cost per piece basis. You want to be able to track the costs against the appeal as a whole rather than trying to break out the costs against different source codes. This is especially true when you have multiple source codes within a marketing effort.
- Some costs apply only to a particular Source Code or part of a marketing effort, such as list rental costs or the difference between different packages sent. Even if you choose to track overhead costs at the Appeal level in your **Campaign Management > System Setup** options, you still have the option to be able track those additional costs. They are tracked as part of the package attached to the source code.

### About RFM Analytics

RFM Analytics is an analytical tool that provides rankings for your contacts based upon their financial participation with the organization. It is a very commonly used tool for fundraising, but its applications are not limited to the fundraising marketplace. Any organization that targets contacts based on past participation can benefit from RFM Analytics.

With RFM Analytics, you can:

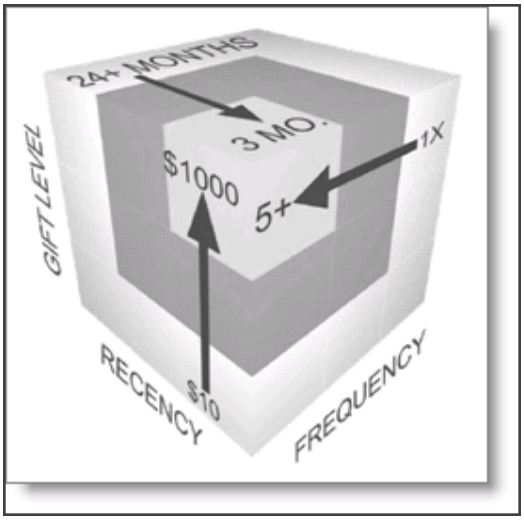
- Rank and organize your customer population into specific groups manually or automatically.
- Define ranking scores for recency, frequency, monetary, combined (calculated), and total (calculated) values.
- Create groups, such as quintiles, that reflect the relative ranking of customers according to all RFM measurements.
- Analyze transaction patterns to accurately predict future behavior.
- Define different customer population and transaction queries to include in each analysis.

RFM Analytics relies upon three core elements that turn transactional data into a three-dimensional score based on:

- Recency – How long since the last transaction?
- Frequency – How often does this transaction occur?
- Monetary Value – How much are these transactions worth?

Click to view image

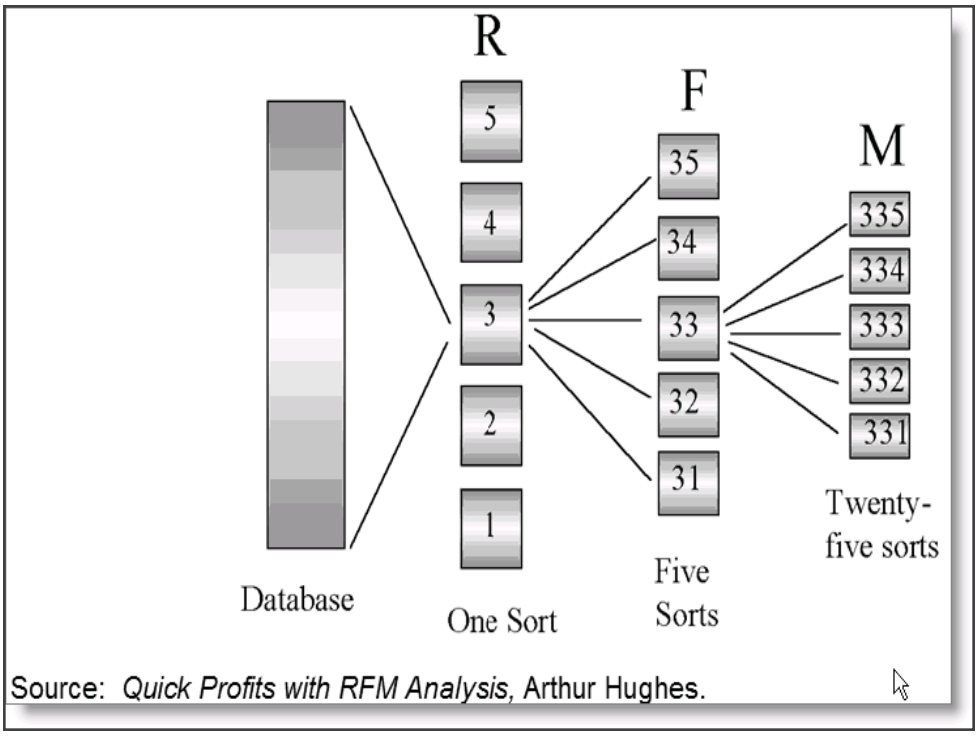
RFM Analytics scoring




Rankings, once run, result in a score being assigned to each record. This score is important because ranks contacts/prospects within a matrix of highest to lowest values.

There are different schools of thought about how to use RFM scores. Some organizations use the total score (1+1+1 = 3). Others use the product of the score (1*1*1 = 1) and others use a concatenation of the scores (111).

Click to view image
Example RFM ranking

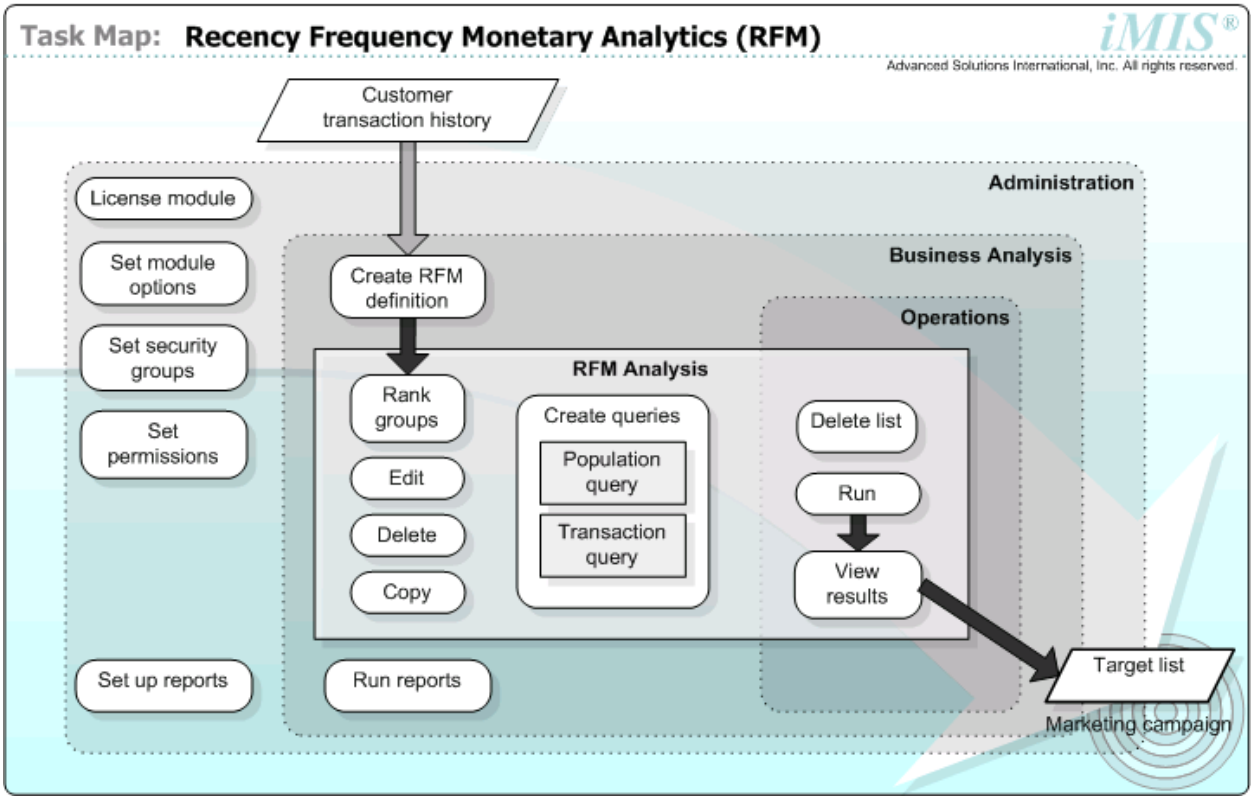



Tips for implementing RFM Analytics:

- If you are running an RFM ranking for the first time, the automatic ranking might be able to help establish a first pass at quartiles or quintiles. However, make sure to review the results to see whether these rankings are correct for your organization. There is a danger in using and re-using automatic rankings for target marketing purposes. Automatic rankings will always produce equal buckets rather than telling you who is falling where based on typical transactional behaviors. After determining some basic highs and lows for each category, use the manual ranking to define those buckets and continue to evaluate the results.
- The key to successfully using RFM Analytics in any organization is having the patience to watch how people perform over a long period of time. Remember that anything can impact behavior and do not react immediately to changes. RFM buckets tend to remain stable.
- Build your queries separately. Do not use Save As to copy queries. There may be some unwanted criteria carried over from the original query.

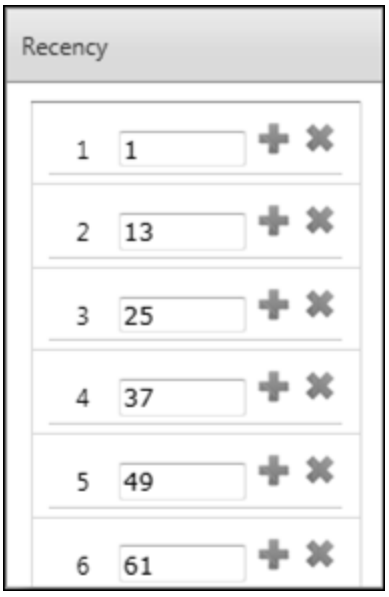
- Make sure the transaction query Includes Quantity, Amount, and Transaction Date. These properties are used for the ranking. You can alias other properties if you wish, such as aliasing Date Received or Effective Date as the Transaction Date.
  Task Map: RFM Analytics
  This diagram illustrates RFM Analytics core tasks by the approximate order they occur (top-left to bottom-right) and by the organizational area that performs them.

  Click to view image
  Task Map: RFM Analytics




Example: Interpreting RFM rankings
The following example uses RFM rankings to identify prospects for a specific campaign.

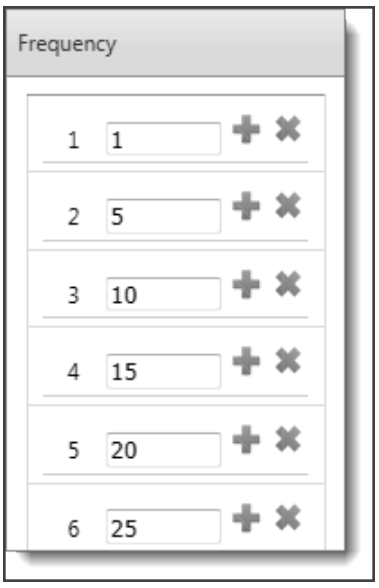
Interpreting recency rankings




**Interpret these rankings as:**

- 1 - Donated once
- 5 - Donated from 2 to 5 times
- 10 - Donated from 6 to 10 times
- 15 - Donated from 11 to 15 times
- 20 - Donated from 16 to 20 times
- 25 - Donated from 21 to 25 times

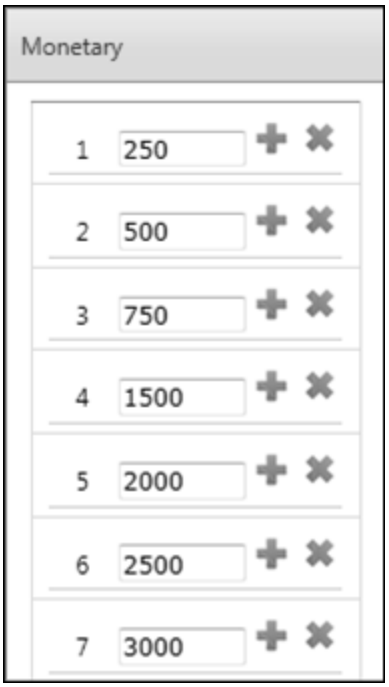
Interpreting frequency rankings



**Interpret these rankings as:**

- 1 - Donated once
- 5 - Donated from 2 to 5 times
- 10 - Donated from 6 to 10 times
- 15 - Donated from 11 to 15 times
- 20 - Donated from 16 to 20 times
- 25 - Donated from 21 to 25 times

Interpreting monetary value rankings




**Interpret these rankings as:**

- 250 - Amount donated is 250 or less
- 500 - Amount donated is 251 to 500
- 750 - Amount donated is 501 to 750
- 1500 - Amount donated is 751 to 1500
- 2000 - Amount donated is 1501 to 2000
- 2500 - Amount donated is 2001 to 2500
- 3000 - Amount donated is 2501 to 3000

Creating RFM analysis definitions

RFM Analytics requires that two queries work together:

- Population query – Determines who will be analyzed
- Transaction query – Determines what will be analyzed (for example, date, quantity, amount)

Tips for creating RFM Analytics definitions

- You can copy and edit existing RFM definitions for efficiency.
- After you define the RFM analysis, you can run it repeatedly to create or update the list of segments generated.

Make sure the population query and transaction query are set up.

To create an analysis definition

1. Select **Community > Manage RFM**.
2. From the **New** drop-down list, select **RFM Definition**.
3. Identify each RFM model with a unique name (duplicate names are allowed).
4. Determine whether ranges should be set automatically or manually:

- When setting ranges automatically, enter a value greater than zero for at least one range.
- When setting ranges manually, specify the **Recency**, **Frequency**, and **Monetary** ranges.
- The query is saved to the default RFM Process Engine folder unless specified otherwise.

Ranking groups automatically

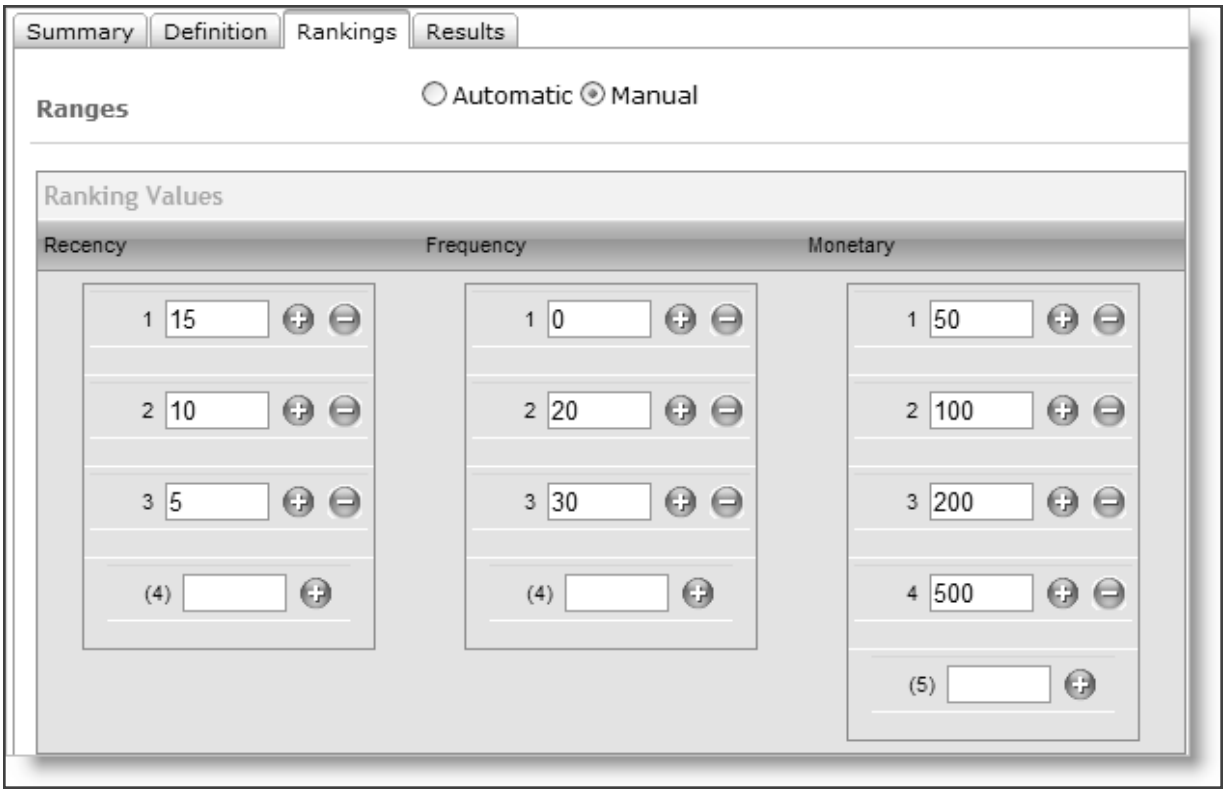
- RFM Analytics divides the number of groups specified using the following procedure when groups are ranked automatically:
- Sorts lists based on criteria (Recency, Frequency, and Monetary)
- Divides the population equally into the specified number of groups
- Starts at the top of the list and ranks each contact based on the group
- Creates an equal number of contacts for each group:
- The lowest-numbered group corresponds to the least desirable ranking.
- The highest-numbered group corresponds to the most desirable ranking.
- The last group may contain a different number of contacts than the other groups depen ding on the population and number of groups.
- Some groups will be empty if the number of contacts is less than the number of groups.
- Two contacts with the same score may be placed in different groups.

Ranking groups manually

When ranking groups manually, you must enter criteria for each ranking group.

Click to view image

Example: Manually ranking RFM values




**Note:** When defining your manual rankings, you should use higher numbers for more desirable rankings and lower numbers for less desirable rankings to conform to industry standards for RFM rankings.

Recency

The criteria for ranking Recency is based on the last time the individual had contact with the organization. The date used is based on the Transaction Date specified in the Transaction Query. The following example illustrates how Recency is ranked:

- Group 1: >10 days and <=15 days, value = 15
- Group 2: >5 days and <=10 days, value = 10
- Group 3: <=5 days

Frequency

The criteria for ranking Frequency is based on the number of times the individual had contact with the organization. The value is calculated by the number of records for an individual in the Transaction Query. The following example illustrates how Frequency is ranked:

- Group 1: <20 times and >=0 times, value = 0
- Group 2: <30 times and >=20 times, value = 20
- Group 3: <50 times and >=30 times, value = 30
- Group 4: >=50 times, value = 50

Monetary

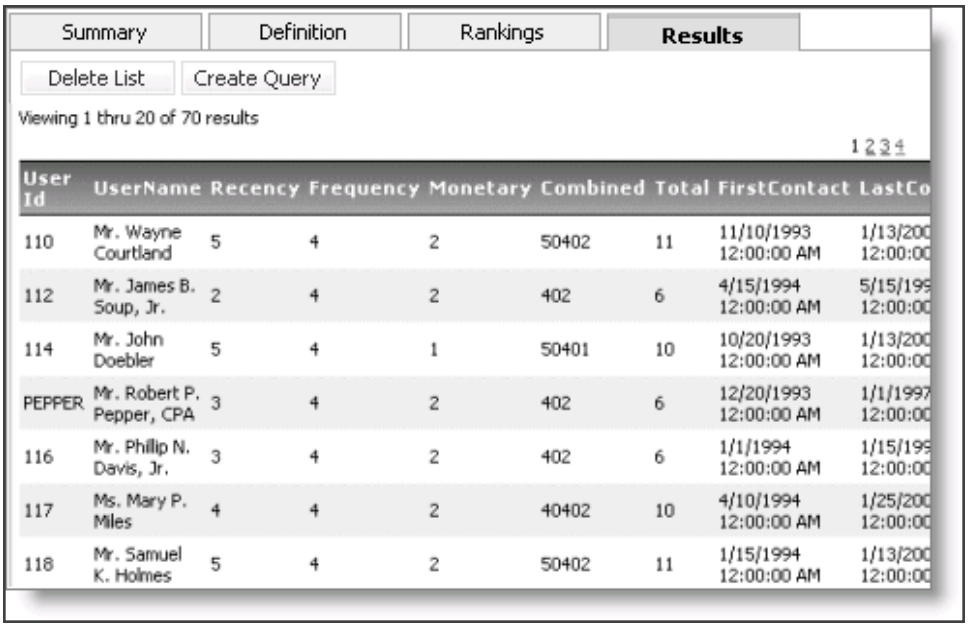
The criteria for ranking Monetary is based on the amount of money the individual has spent with the organization. The amount is based on the total amount from the Transaction Query. The following example illustrates how Monetary is ranked:

- Group 1: <0 and >=50, value = 50
- Group 2:  <50 and >=100, value = 100
- Group 3: <100 and >=200, value = 200
- Group 4:  >200 and >=500, value = 500

Generating and querying RFM analysis results

To generate and query RFM results

1. Select **Community > Manage RFM > Run RFM Analytics** and open the RFM analysis definition.
2. Click **Run**. A status message displays on the Summary tab. If an error message such as "An error has occurred while generating Lists" appears, click on the message to see more details.
3. View the results on the **Results** tab. Your results may look similar to the following example:




| User Id | UserName | Recency | Frequency | Monetary | Combined | Total | FirstContact | LastCo |
|---|---|---|---|---|---|---|---|---|
| 110 | Mr. Wayne Courtland | 5 | 4 | 2 | 50402 | 11 | 11/10/1993 12:00:00 AM | 1/13/200 12:00:00 |
| 112 | Mr. James B. Soup, Jr. | 2 | 4 | 2 | 402 | 6 | 4/15/1994 12:00:00 AM | 5/15/199 12:00:00 |
| 114 | Mr. John Doebler | 5 | 4 | 1 | 50401 | 10 | 10/20/1993 12:00:00 AM | 1/13/200 12:00:00 |
| PEPPER | Mr. Robert P. Pepper, CPA | 3 | 4 | 2 | 402 | 6 | 12/20/1993 12:00:00 AM | 1/1/1997 12:00:00 |
| 116 | Mr. Philip N. Davis, Jr. | 3 | 4 | 2 | 402 | 6 | 1/1/1994 12:00:00 AM | 1/15/199 12:00:00 |
| 117 | Ms. Mary P. Miles | 4 | 4 | 2 | 40402 | 10 | 4/10/1994 12:00:00 AM | 1/25/200 12:00:00 |
| 118 | Mr. Samuel K. Holmes | 5 | 4 | 2 | 50402 | 11 | 1/15/1994 12:00:00 AM | 1/13/200 12:00:00 |

To query the results of an RFM analysis

1. Select **Community > Manage RFM > Run RFM Analytics** and open the RFM analysis definition.
2. Select contacts from the following RFM criteria:
   - Recency ranking
   - Frequency ranking
   - Monetary ranking
   - Combined ranking
   - Total ranking
   - First amount
   - First amount date
   - Last amount
   - Last amount date
   - Highest amount
   - Highest amount date
3. To purge the results, select **Delete List**.
4. To create a query for use in Campaigns, select **Create Query**.

Using RFM Analytics with Segmentation

RFM rankings can be used as the basis for segmentation. Segmentation assists with targeting the market or the segment of the database who is most likely to respond to the

marketing effort. For example, if your marketing department is trying to mail the company contact of their best conference attendees, they might look for:

- Recency going back 5 years
- Frequency of attendance being greater than ten times attending (because this would imply that at least two attendees from that company attended within those 5 years)
- Value = to increments of conference registration because that's the value of their attendance (anyone with a value higher than that might have purchased books at the conference or made a donation above and beyond the registration fee).
  You can use the same ranking model against different groups or populations within your database to be able to make predictions and better target who is most likely to respond to a particular marketing effort. The RFM rankings may look the same, but the numbers within each rank may be quite different.

**Example: Creating a fundraising campaign**

In this example, the campaign manager for the Research Foundation wants to create a fundraising campaign. The Research Foundation, which researches human diseases and develops vaccines, is preparing for its annual Ride for Research fundraising event.

The Ride for Research event is a weekend-long bicycle ride that has been very successful in generating revenue and awareness for the foundation's research. To attract riders for this year's event, the foundation will conduct a direct-mail marketing campaign that targets past and potential riders.

Create the campaign
Define the campaign:

- **Name**: Ride for Research
- **Campaign** Code: 05RR
- **Description**: Our annual series of events that serve as our major outreach and awareness campaign. The series culminates in our annual bicycle ride.
- **Campaign Type**: Annual
- **Status**: Active
- **Start Date**: 03/01/2006

- **End Date**: 02/27/2007
- **Predicted Response Rate**: 14.00

Create the direct mail appeal

Define the direct mail appeal:

- **Name**: Direct Mail Appeal
- **Description**: Direct mail appeal to attract riders for the Ride for Research event.
- **Status**: Active
- **Start Date**: 04/01/2006
- **End Date**: 04/30/2006
- **Predicted Response Rate**: 11.00

Create the products monitored by the campaign

When a monitored product (product linked to the campaign at the appeal level) is purchased (or a donation is made), the response management feature of Campaign Management automatically captures the product sale, which then is used for monitoring and measuring the campaign's performance.

In the iMIS Events module, define the event:

- **Event Code**: 05RR
- **Title**: 2005 Ride for Research
- **Status**: A
- **Begin Date**: 02/26/2006
- **End Date**: 02/27/2006
- **Maximum**: 25000
- **Fundraising Event**: Enabled
- **Entity Code**: General Fund
- **Campaign**: 05RR

Define the Event Registration function:

- **Function Code**: REG
- **Title**: Event Registration
- **Type**: REG
- **Status**: A
- **Begin Date**: 02/26/2006

- **Time**: 7:00 AM
- **End Date**: 02/27/2006
- **Time**: 5:00 PM
- **Description**: Registration for the Ride for Research fundraising event.
- **Maximum**: 25000
- **Automatic Option**: Enabled
- **Fees**: 100.00 Regular
- **Income Account**: General Income

In the iMIS Orders module, create the Product category:

- **Category**: Product
- **Description**: Order Products
- **Stock Item**: Enabled
- **Taxable**: Enabled

Create the Ride for Research coffee mug product:

- **Code**: RR-MUG
- **Category**: Product
- **Status**: Active
- **Title**: 2005 Ride for Research Coffee Mug
- **Pricing**: 8.00 Regular
- **Unit of Measure**: Each
- **Weight**: .5
- **Stock Item**: Enabled
- **Taxable**: Enabled

Add the products to the direct mail appeal

Assign the monitored products (05RR and RR-MUG) to the campaign's Direct Mail Appeal.

Create the solicitation for riders

The marketing plan is to solicit all Research Foundation members to ride in the Ride for Research event.

Define the Solicitation for Riders:

- **Name**: Solicitation for Riders
- **Description**: Core solicitation with specific requests for participating in and sponsoring the Ride for Research event.
- **Status**: Active
- **Reminder Date**: 04/09/2006
- **Start Date**: 04/10/2006
- **End Date**: 04/17/2006
- **Predicted Response Rate**: 14.00

Create the source code package for potential riders

This source code package will be sent to all potential riders in the Ride for Research event.

Define the Riders source code:

- **Code**: Riders
- **Description**: Package to contacts for riding in the Ride for Research event.
- **Status**: Active
- **Overhead Cost**: CC_01 = Cost Code, 500 = Amount
- **Predicted Response Rate**: 14.00
- **Target Revenue**: 75000
- **Source Code Type**: Run Many
- **List Member Type**: Contact

Create the source list: All Contacts query

Create the inserts

Create the following inserts:

- 10" x 15" envelope
- Brochure
- Business return envelope
- Postage
- Registration form

Add the inserts to the source code

Add the following inserts to the Riders source code:

- ENV10X15
- BRCHR
- RTNENV
- POSTAGE
- RegForm

## Communications and Reporting

Communications tools help you build messages to be sent to targeted contacts. In addition, you can run reports about a campaign or a portion of a campaign. These messages and reports are considered “output” and can be generated at any of the four campaign levels:

- Campaign
- Appeal
- Solicitation
- Source code

In addition, you can import and export source lists.

Lists with names can be imported into iMIS Acquisition Management. Campaign Management  and Segmentation can query this list and generate lists from it. One of the most important considerations is being able to test against different list rentals. Therefore, it is important to have a testing model.

Lists without names can still be tracked in Campaign Management. At the source code level, assign the quantities included in the list rental. Track the list rental/purchase cost at the package level. Remember that the package will be attached to the source code. Different packages have different list costs, so it is important to apply the cost to the package to properly calculate the ROI.

Kill files may be prepared to accompany marketing campaigns, particularly acquisition campaigns. To prevent redundancy, an organization should run a de-duping or merge/purge of their house file (the active names) within their iMIS database and the lists that they rent.

If your organization is using these files, prepare both a segmentation job and output file specific to kill files.

Setting up output processes

Output processes are the means to generate collateral for your campaign:

- **Word Merge** – Print a mail merge document
- **Email Merge** – Send an email message
- **Campaign List Export** – Generate a list to be sent to an external vendor for letter shopping or to contacts via listserv
- **RFM Analytics** – Rank records based on Recency, Frequency and Monetary Value
- **Opportunity Process Engine** – Generate projects/opportunities based on complex business rules or in response to a campaign.

You can generate output from a campaign, appeal, solicitation or source code. When you generate output from one level, such as an appeal, output for all of the components beneath it generates. For example:

- **Appeal** – generates output for all solicitations and source codes beneath it
- **Solicitation** – generates output for all source codes linked to it
- **Source Code** – generates output for that one source code only

Word merges and campaign list export files are stored inside Campaign Management after running. Use the View Output menu to see the results.

Tips for setting up output processes

- Throughout the Marketing Suite, NetContact is a required business object. Make sure that you include it in all of your queries, regardless of whether they are used as source lists for source codes or as output queries for an output process attached to a source code.
- Use templates for best efficiency. Some templates are designed through third-party packages which integrate with iMIS; for example, Microsoft Word documents, emails, and report files. Most output processes allow you to define and save the template while you build the process itself.
- Process Manager must be set up before running the opportunity output process.

Business goals

The process for generating output is:

1. Build the campaign structure first and define the source list (query, a previous solicitation, or a segmentation job).
2. Define an insert.
3. Customize the insert template, if necessary, for this specific need.
4. Attach the output process insert to one or more source codes.
5. Generate the output.

Seed lists for campaigns

A seed list is a list of the individuals within your organization concerned with the campaign. Seed lists are often used to confirm the mail date and to distribute samples internally.

Seed lists are often attached to campaigns but usually not to source codes so that the seed list is not included in the return on investment (ROI) calculations.

Queries for output processes

When a process is run independently of Campaign Management, the process uses the query in its definition to determine the set of generated records. When the same process is executed as part of a campaign's output generation process, the set of records is determined by joining the query with the campaign's target list to form a subset of records. If the process's query does not have records in common with the target list, no output will be generated for that source code.

The source that you should use for the query depends on how you will use the output process.You must typically define two separate output processes for marketing inserts because source codes and job segments differentiate between contacts and prospects.

- Job segments are defined as a contact job or as a prospect job.
- Source codes are designated as a contact source codes or as a prospect source code. So, to send marketing inserts to both your contacts and your prospects, you would need to create two different inserts:

- One insert must use an output process whose query source is the NetContact business object
- The other insert must use an output process whose query source is the Prospect business object.

> **Note:** You should not use CSContact or CSProspect as the query source for any output process associated with marketing inserts. Use only the NetContact or the Prospect business object as appropriate, depending on the associated source codes and job segments.

## Marketing Concepts and Terms

### Basic and closed-loop marketing principles

There are many different types of marketing efforts used by a variety of different sectors, such as:

- Retail marketing
- Fund raising
- Brand marketing
- Membership
- Issue awareness
- Event marketing
- Calls to action

Each of these forms of marketing uses a series of principles and practices to meet their goals. The principles discussed in the following topics reference database marketing practices for the not-for-profit sector. These are general, high-level concepts, but each organization performs marketing in a unique manner.

Customer-focused marketing

Being customer-focused means that marketing efforts need to balance the goals of the organization with the needs of their "customers" (contacts, members, donors, prospects, legislators).

Customer-focused organizations integrate their customer service department and website content with current marketing efforts to offer choices. By offering choices, they open opportunities for customers to respond to the call to action. That way, the customer chooses when and how they want to hear from the organization.

For years, these organizations have used focus groups and other consumer index information to help determine what their product offering should be. More and more, focus

groups and customer surveys are being used to determine how an organization is perceived by its supporters. After the questions are asked and the numbers are in, organizations are changing how they speak to their supporters.

Customer satisfaction is a relatively new key metric that organizations seek to determine. Ways to measure customer satisfaction include:

- Conducting a survey – Extract a list from your database, develop customer satisfaction questions, call or send the survey to your customers, record the responses, and analyze the results.
- Integrating short surveys into your customer service activities – Add questions to a donor reply device or a membership renewal package.
- Offering a survey on your website.
- Encouraging your customer service staff to ask questions when they are on the phone with your customer and to record the answers.

A key component to being customer-focused is responding to supporters when they take the time to ask a question or express a concern. Respect for the customer is the key to maintaining high customer satisfaction ratings.

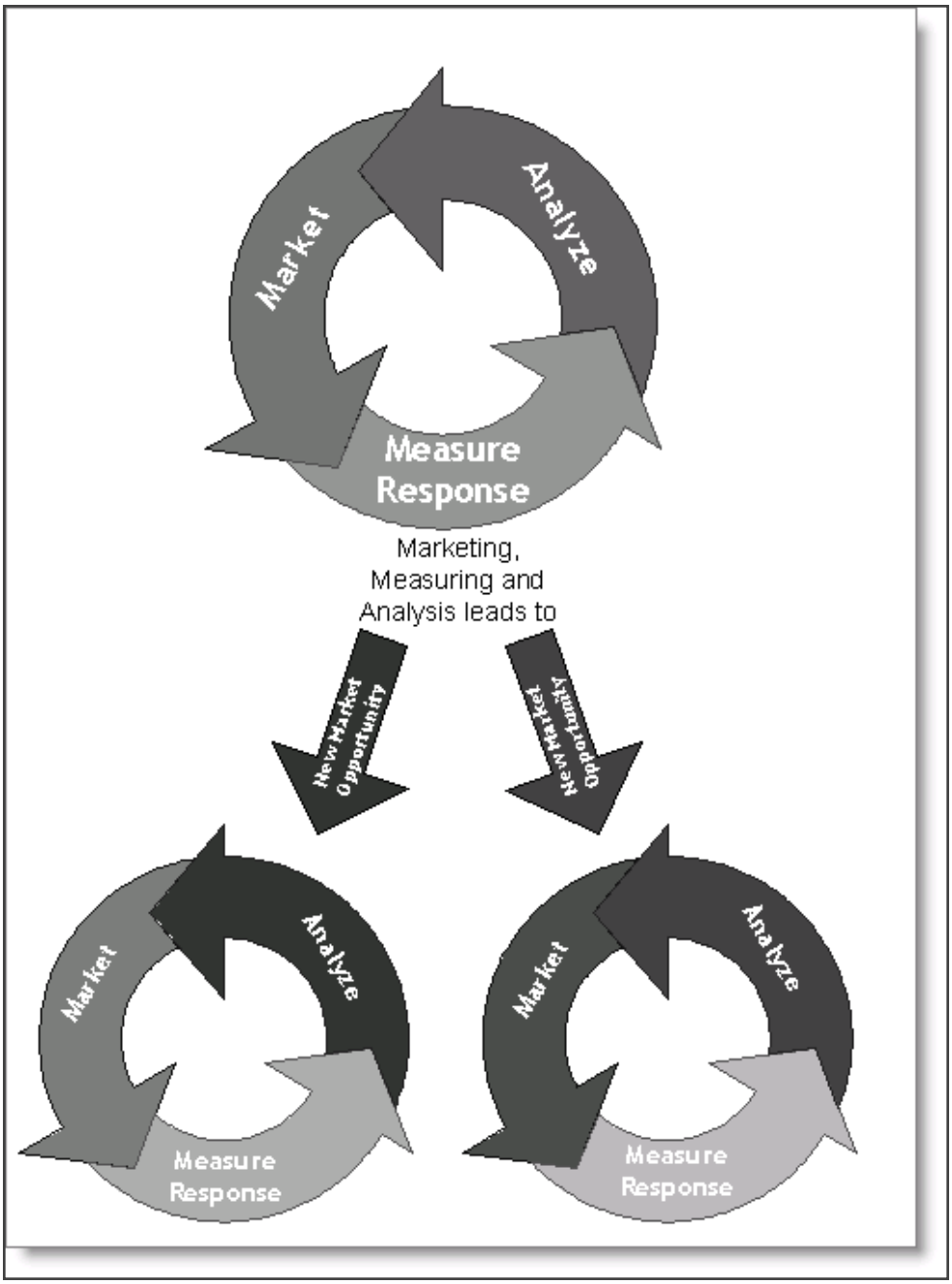
Measuring customer satisfaction is integrally tied to managing your key business processes well, particularly your customer service processes.

Closed-loop marketing

The closed-loop marketing approach measures the results of marketing and communication initiatives by tracking the response of targeted groups. The results of responses, such as completed surveys, promotional entries, coupon redemptions and purchase behavior, are added to a database for tracking and evaluation to improve future marketing decisions. Marketing campaigns can then continuously adapt to the customers' wants and needs, creating a true relationship. Simply put, marketers can develop and monitor targeted strategic campaigns based on a wide variety of customer histories and behaviors.

Click to view image

Closed-loop marketing process




Organizations do not leap into target marketing. Organizations that are working towards a targeted closed-loop approach plan the introduction carefully and over some time, beginning with developing a segmentation strategy.

Closed-loop marketing involves a never-ending cycle of ongoing analysis, ongoing marketing, and ongoing response management. As we market, we learn. As we learn, we

develop new marketing strategies. New marketing strategies lead to changes in how we manage responses.

New market opportunities are identified through trend analysis. A new opportunity may address a weak area within a marketing plan or may identify a new group.

Closed-loop marketing refers to the cycle of:

- Developing metrics and benchmarks for the desired transactional behavior
- Ensuring that business processes are in place to maximize the customer's experience and to build loyalty.

In essence, once a customer is introduced into our loop, we ensure that they never want to leave.

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The role of segmentation

Segmentation is the science of dividing up all of the records in an organization's database into small groups that can be marketed to and measured over time. It is the way in which we apply demographic, mood, and transactional data to our marketing activities.

Most organizations that have a segmentation model are able to provide detailed descriptions of what those segments are and when they approach them. Organizations without a segmentation model need to plan one carefully. Segmentation strategies change from organization to organization. This is because the mission of each organization is unique and the characteristics that make up its supporter base are equally unique.

Segmentation usually begins by defining broad audience groups. However, audiences should not be considered as isolated groups; they may support the organization in a variety of ways. By recognizing that these relationships exist, an organization can offer personalized targeted marketing.

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Types of data

A variety of data can be used for targeted marketing: Demographics, Psychographics, and Transactional data.

In order to be customer-focused, an organization's data segmentation strategy must include customer communication preferences and can include individual customer satisfaction rankings.

Demographics

Demographic data helps identify groups based on information like age, gender, geographic location and marital status. Demographic data is core to understanding what groups may be likely to perform in what way.

Acquiring demographic data about customers may or may not be easy to do. Some organizations require that date of birth and other demographic information be provided. Other organizations may be bound by privacy rules that may make it harder to capture this information.

Demographic data can be acquired from outside sources. For instance, you can recruit the services of a vendor who has access to income tax data and other filed information.

Psychographics

Psychographics refers to how someone behaves: their likes, dislikes, interests, and key values. Although demographic data generally remains consistent, psychographics change. A key measurement of psychographics is customer mood. Customer moods change based upon how an organization interacts with a customer.

Psychographic data is usually gathered through polls and surveys.

Transactional Data

Analyzing transactional data is critical to measuring customer satisfaction and loyalty.

RFM (Recency, Frequency, Monetary Value) is a common way of scoring transactions and determining loyalty and value. By establishing a matrix of values, you can measure where a customer ranks within the matrix and the direction they are migrating.

RFM is the science of developing this matrix of scores based on values we associate with the scores. In the end, records are grouped together based on their rankings. They share their support in common. Because the rankings are standardized, it is a very statistically

valid way of building a standardized segmentation model. The RFM scoring process inherently converts flat data files into three dimensional data files.

Other ways of looking at transactional data are available but they are one dimensional in nature:

- Last Year But Unfortunately Not This (LYBUNT)
- Second-to-Last Year But Unfortunately Not This (SYBUNT)
- Third-to-Last Year But Unfortunately Not This (TYBUNT)
  This data measures only one RFM characteristic: Recency. You cannot use a LYBUNT, SYBUNT, TYBUNT report for identifying your best customers; its purpose is to identify the erratic donor.

High-value customer reports are also common for measuring value, but judgments made solely upon value can be misleading in determining customer strategies. For example, should you spend time building a relationship with a customer who has given you a lot of money but not for the past five years? Or, should you spend time building a relationship with a customer who has given less financial support but given it very recently? Or, very loyally every year for the past ten years?

Reports and analytics that focus on only one element of the transaction can be misleading. The RFM approach is preferred because of its ability to slice data three ways.

RFM is also ideal because it can be implemented easily and regularly within a database. Ideally, data should be reviewed with a vendor/partner who specializes in understanding marketing statistics and segmentation, but this is not always necessary. Other more advanced data analytic services are also available, but can be expensive and difficult to implement and are best used to develop a predictive model.

A predictive model is used to consolidate all of the demographic, psychographic, and transactional data available to the organization into a data algorithm that can be used to target records that appear to be becoming a target market. For example, a "lapsing customer" model can identify customers whose loyalty is waning before they disappear. Or, a "planned giving" model can identify the point at which we've learned the two or three key criteria that we need to gather to qualify a planned giving prospect.

Predictive models generate leads for a different marketing strategy. Marketing campaigns/appeals follow through on those leads. Data underlies the success of these marketing efforts.

Using Different Types of Data to Enhance Marketing Efforts

Source Code assignments fall into three basic categories:

- Codes assigned to outgoing marketing efforts to track the incoming responses to the effort that recruited the support
- Generic codes that are assigned to ongoing 'passive' ways in which a customer can support an organization, such as web transactions, general acknowledgement responses, pass-to-a-friend, catalogs, or cards
- Unknown codes that are assigned to capture responses when the actual source code is not known

Assign source codes to outgoing marketing efforts to be able to track how contacts respond. A source code is assigned to each segment within an outgoing marketing effort and is printed on a reply device (the form the customer returns to the organization). Printing the source code on the information the contact receives allows for it to be data entered easily when an incoming transaction is received. Essentially, source codes should exist at any time that a contact is presented with a project to support. This opportunity is a call to action.

Source code tracking is important. To maintain the highest possible accuracy in recording the actual source code assigned to a contact's response, key processes have to be highlighted. Data entry staff need to know the importance of accurate data entry and, in a customer-focused closed-loop model, quick and accurate acknowledgments should be sent to the contact, thanking them for their response.

Entering the correct source code on incoming transactions is important for thanking the contact properly. An error might result in a complaint to your customer service staff or it might convince the contact to stop supporting your organization.

What feeds source codes into Campaign Management?

Campaign Management: The 'source' for the Campaign is your source code. The source code is your list of members/prospects that a campaign/appeal/solicitation is targeted to and the output is generated for. This list of members for a specific source code comes from a segmentation job or definition, a query or a group of solicitation responses.

Segmentation: When you generate a segmentation job consisting of 1 or more segment definitions you are creating a source list for your campaign/appeal/solicitation. A source code in Campaign Management can pull from the whole job or just one of the segment definitions.

RFM Analytics: You can use RFM analysis to generate queries to use in Segmentation to help create the segments. In this way, RFM helps create the segment definition that is used as a source list for a source code in Campaign Management.

Process Management: When you create a new opportunity, on the Definition you can select a Source Code. This is more informational than functional in that it lets you record which Source Code for a specific campaign/appeal/solicitation may have generated the opportunity.

Testing the marketing plan
The move from mass marketing to targeted closed-loop marketing is usually accomplished through testing. Best practices for testing include:

- Test one thing at a time.
- Determine a goal/objective for your test. It is important to know that you are doing what you set out to do.
- Understand what makes for a statistically valid result. The simple rule of thumb is to include enough records in your test to ensure that you receive at least 100 responses. Market testing within your own database requires that you use random segmentation selections. This means that you establish a group that you would expect to perform in a particular way and then randomly select the number of records you want to test against.

Statistical validity is measured not just by having test groups of the right size, but also by the use of control groups. Test groups must be measured against a control group. The control group will receive the same package as usual or be the same group as usual. This

group will receive the usual expected result unless an outside phenomenon changes the outcome. The test group will perform differently than the control group.

If the objective is to “recruit more donors,” then you cannot say that the test failed because the return on investment is lower than the control group. Return on Investment is a different metric than percentage return. The percentage return better measures if this objective was met.

To accurately determine whether a test is successful, it should be repeated. Future campaigns should repeat the test on new groups of randomly selected records. After the test has produced similar results three or four times, consider increasing the size of your test groups and introducing your new tactic on a permanent basis. Again, vendors can work with you in developing tests, measuring their effectiveness, and deciding when the test has finished successfully.

**Terms to know: Campaign Management**

Actual Cost

Calculated as follows when Budget Level is set to Source Code:

(total insert costs x actual number of contacts solicited) + (overhead costs of source codes for which output has been generated)

Appeal

Each major marketing effort of a campaign, usually associated with a drop date. An appeal can be:

- A phase of the project, such as "First Request" or "Airwaves Blitz"
- A portion of the campaign targeted to a specific group of contacts or prospects
- A portion of the campaign assigned to an internal group (generating mailing lists, designing artwork, managing responses)

Average Transaction Amount

Total Revenue divided by the total number of all orders, gifts, and pledges attributed to one of the following:

- Source code
- All source codes within a campaign, an appeal, or a solicitation

Campaign

A strategy to accomplish a single marketing goal, such as a membership drive, a fundraising campaign, an annual convention, or a legislative initiative. Campaigns are the highest level of measurement and are typically project-driven.

Campaign Type

Object for organizing and grouping specific and similar campaigns. The following campaign types are available by default:

- **None**
- **Annual** – Campaign that occurs every year
- **Designated** – Funds generated by the campaign are committed to a specific entity
- **Undesignated** – Funds generated by the campaign are not committed to a specific entity. The organization decides how to allocate the funds, unless specified by the donor.

Cost Per Thousand

Equal to the following:

- For each campaign, appeal, and solicitation:
- (Actual Cost x 1000) / number of pieces mailed
- For each source code when Budget Level is set to Source Code:
- (Total Cost x 1000) / number of pieces mailed

Count

Total records in an external list

Current Response Rate

Equal to the following for each campaign, appeal, solicitation, and source code:

number of responses received / number of pieces mailed

Date of First Response

Date a contact first responds for each campaign, appeal, solicitation, and source code

Date of Last Response

Date a contact last responded for each campaign, appeal, solicitation, and source code

Drop Date

The definition of drop date depends on the media involved:

- Direct mail – Date delivery begins
- Telemarketing – Date calls begin
- Media spots (TV, radio, webcast) – Air date
- Newsletters – Date of issue mailing
- Online campaigns – Date email messages are sent

Drop dates for other efforts can include:

- Date the mailing list is generated
- Date the creative concepts/artwork is complete
- Date the response management process is set up

Dummy/Test Selects

Practise run to verify counts. Many organizations run dummy or test selects prior to their anticipated mail date to see the final counts and to modify the criteria if the numbers are not what they anticipate.

During the production process, counts are usually required for:

- Accurately determining postage costs (usually pre-paid)
- Determining print quantities
- Determining print quantities by package

Estimated Cost

Calculated as follows when Budget Level is set to Source Code:

(total insert costs x estimated number of contacts solicited) + (source code overhead costs)

External Filename

Name of an external list

Highest Transaction Amount

Maximum of all orders, gifts, and pledges attributed to one of the following:

- Source code
- All source codes within a campaign, an appeal, or a solicitation

Insert

Physical item sent to a contact such as a merge letter, pre-printed collateral, or envelope

Insert Type

Object for organizing and grouping specific and similar inserts. The following insert types are available by default:

- **None**
- **Brochure**
- **Envelope**
- **Form**
- **Postage**

Kill File

Files from an external source that have been checked for duplications and merged/purged with an organization's iMIS database and rented lists

Last Drop Date

Date of the last output generation

List Member Type

Method of grouping list members into general types. The default list member types are Contact and Prospect.

List Type

Method of organizing source lists by type. The default List Types are Query, Segment Definition, and Solicitation Response.

Lowest Transaction Amount

Minimum of all orders, gifts, and pledges attributed to one of the following:

- Source code
- All source codes within a campaign, an appeal, or a solicitation

Net Revenue

Calculated at the campaign, appeal, solicitation, and source code levels as:

Total Revenue – Actual Cost

Operational Costs

Costs for anything that is applies to the marketing effort as a whole, such as:

- Lettershopping
- Printing
- Paper

Output Process

A process-oriented task, for example, a Crystal report, MS Word merge, or query

Overhead Cost

The sum of expenses entered for each appeal (when Budget Level is set to Appeal) or source code (when Budget Level is set to Source Code)

Package Costs

Costs for anything applied to the package, such as:

- Postage
- Outer envelope
- BRE
- BRD
- Telemarketing costs

Predicted Response Rate

Percentage estimate of contacts responding to each appeal (when Budget Level is set to Appeal) or source code (when Budget Level is set to Source Code)

Response Media

The origin of an opportunity, such as email, web, telephone, or postal mail

Response Stage

Pre-defined stages in the source code so that a contact moves through campaign stages as they respond to solicitations

Response State

The configuration setting for including contacts in specific campaign stages based on response history:

- Solicited – Contact has been solicited but has not responded.
- SolicitedResponse – Contact has responded to a solicitation.

- UnsolicitedResponse – Contact has responded  but was never solicited.
- OptOut – Contact has opted out of the solicitation.

Revenue per Thousand

Equal to the following for each campaign, appeal, solicitation, and source code:

(Total Revenue x 1000) / number of pieces mailed

ROI Percentage

Equal to the following for each campaign, appeal, solicitation (Budget Level set to Source Code), or source code (Budget Level set to Source Code):

(Total Revenue – Actual Cost) / Actual Cost

Seed Lists

Lists of individuals within the organization sending the campaign. These lists are often included to confirm the mail date and to distribute samples internally.

Solicitation

A series of communication pieces for an appeal. For example, a "First Request" appeal might direct different messages to previous donors/customers than to prospects.

Source Code

Numbers assigned to each communication piece to track responses. These numbers are associated with reply devices (postcard, website checkbox) so your organization can measure the effectiveness of each solicitation. Source codes are the most granular level of measurement in a campaign.

Source Code ID Mode

Configuration setting to generate source codes manually or automatically

Source Code Type

Indicates whether source code list sources are defined by internal data or by an external file.  Default source code types are Run Once, Run Many, and External List.

Source List

List specifying contacts to be solicited

Synchronize Responses
Option that triggers the response recognition process

Target Revenue
Monetary goal for each campaign and appeal (when Budget Level is set to Appeal) or for each solicitation and source code (when Budget Level is set to Source Code)

Total Cost
Calculated according to budget level:

- Budget Level is set to Appeal – equals the sum of all overhead costs for an appeal and for all appeals within a campaign. Insert costs are ignore). The displayed Total Cost is always up-to-date with the current cost of all sub-items. Because Total Cost calculation relies solely on overhead costs, Total Cost is never estimated.
- Budget Level is set to Source Code – Total Cost (Actual or Estimated) displays for each campaign, appeal, solicitation, and source code

Total Revenue
The sum of all orders, gifts, and pledges attributed to all source codes within a campaign, an appeal, or a solicitation

**Terms to know: Segmentation**

N-Select Segments
A portion of the entire population that is the target for a campaign. The results returned by a selection filter are divided into a number (n) of segments, with the same number of contacts or prospects in each segment.

Segment
Portion of the entire population that is the target for a particular marketing campaign. A segment organizes customers and prospects according to demographic and behavioral patterns.

Segment Definition
Specifications for an individual segment within a segmentation job. A segment definition can be a query segment or an n-Select segment.

Segmentation Job

A mechanism for establishing all of the segments in a marketing campaign. This allows segments to be added, deleted, and tested. The segments can then be assigned to individual source codes and created in one process rather than individually creating each segment.

### Terms to know: RFM Analytics

Frequency

Number of times a contact has transacted with an organization

Monetary

Individual or cumulative value of a contact's transactions with an organization

Population Query

Defines the population (contacts) used for RFM analyses. The population query references an IQA query that extracts users from an existing set.

Quintile

Any of the four values that divide the items of a frequency distribution into five classes with each containing one-fifth of the total population

Recency

Period of time (in days or months) that has elapsed since the last transaction between a contact and an organization

Transaction Query

Defines the transactions considered for RFM analysis. The transaction query references an IQA query.

## Process Manager

### Overview of Process Manager

Process Manager helps you to optimize the opportunities presented to your organization, build ongoing relationships, and manage processes assigned to individuals or groups. You also have the means to analyze, forecast, and report on the efforts. With Process Manager, your staff can coordinate their tactics effectively using a centralized overview of all relevant information.

Use Process Manager to coordinate interrelated efforts such as:

- Developing relationships
- Sales opportunities
- Prospective donors
- Sponsorships
- Managing multi-stage projects
- Conference planning
- Editorial reviews
- Optimizing processes
- Membership applications
- Issues/Resolutions

Run your business more efficiently with Process Manager:

- Track sales/donors/sponsorship opportunities with default workflows or with action plans you build for your specific processes.
- Build rewarding customer/donor relationships by tracking history, key milestones, contact information, and other data that helps you support the relationship.
- Forecast and analyze performance through tracking and reports.
- Provide effective communications for your staff and your prospects with effective data presentation, e-mail notifications, and MS Word mail merge letters.
- Maintain multiple opportunities per contact, each with separate data.
- Add individual or company records to the iMIS database directly from Process Manager.

> **Note:** If you have configured iMIS for SQL server sessions, the Process Manager module and all of its components are unsupported. If you plan to use this module, disable SQL Server Sessions.

Using Process Manager with Marketing Suite

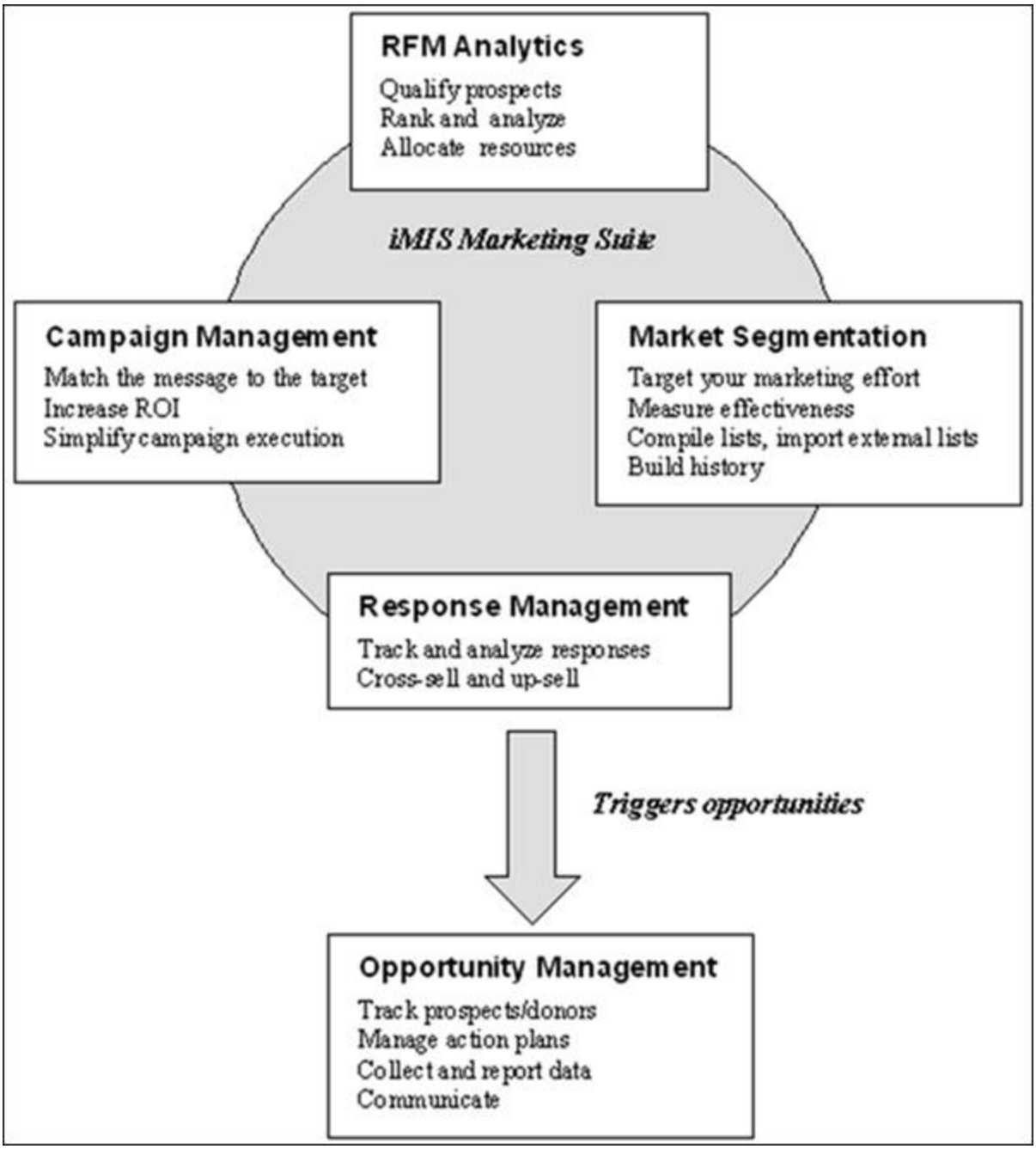
Get the right message to the right person at the right time. Use Process Manager with Marketing Suite to integrate your organization's marketing efforts for maximum efficiency and success.

Use Marketing Suite to plan and implement mass communications to contacts, members, donors, new prospects, or other targeted groups. Through response tracking and analysis, you can identify opportunities to be pursued.

These projects can be generated automatically based on specific criteria. They appear in the opportunity list and contain contact information and comments. In addition, these opportunities indicate the source codes from Campaigns that identify the marketing source code and affiliated campaign/appeal that might have produced the opportunity.

Click to view image

Marketing Suite and Process Manager integration




Process Manager concepts

A project is any circumstance that could result in a positive action for your organization, such as a purchase, donation, or registration. The definition of a project is flexible, so you can tailor it to your specific needs:

- A project can be assigned for a prospect who is a single individual or for an organization, department, company, or family.

- A project uses an action plan that includes the tasks needed to move from 0% probability of success to 100%.
- A project assigns workflow to an owner and allows others within an organization to be identified as participants who contribute to the success of the project.

Process Manager terms

Access Privilege

Permission granted to one or more users, groups, or roles for accessing specific areas of functionality within iMIS.

Account Administrator

A high-level user with full access and privileges to all setup, maintenance, and data entry areas involving accounting-related tasks. An Account Administrator has all access and privileges granted to any Accounting User.

Account Receivable

Amount a customer owes the company for credit purchases.

Accounting User

A mid-level user with limited access and privileges to specific maintenance and data entry areas involving accounting-related tasks. Different accounting users might have different specific privileges depending on the tasks for which they are responsible.

Action

A task within a stage that is assigned to an individual or group for a specific opportunity, for example, a telephone call or an e-mail.

Action Plan

Pre-defined actions that take place in a certain order and in a specific timeframe. Action plans are made up of stages and tasks.

Adjustment

Any accounting transaction that results from an adjustment of inventory, orders, invoices, or payments, for example, transactions stemming from credit memos, debit memos, inventory adjustments, and returned checks.

Adjustment Interface

Accounting process that will generate the adjustment and adjustment application lines based on the data passed from the commerce engine, export file, or user manually entered adjustment.

Alias

An alternate name for a column (property). For example, you could define Postal Code as the alias for the Zip column name.

Asynchronous Process

A process that runs independently (in the background) of other processes. Other processes may be started before the asynchronous process has finished.

Bound Query

A query that is connected to an output process definition and cannot be overridden at runtime.

Budget Level

The configuration setting on the Campaign Management Set up module page for specifying whether Target Revenue and budgets are tracked at the appeal or source code level.

Business Object

A collection of self-contained data that represents an entity or process and shields the physical data. For example, the CsContact business object can represent a view of a person or organization and the processes that a person or organization can perform.

Cash Receipt

Cash received through checks, credit card charges, and currency. Cash can be received at the same time as the order, for example, a prepaid order, and therefore applied specifically to that order and/or it can be received to apply towards open receivables. In some cases, cash can be received without sufficient application instructions, leaving the unapplied portion an unrestricted open credit.

Cash Receipt Interface

Accounting process that will generate the payment and payment application lines based on the data passed from commerce engine, export file, or manually entered payment.

Comparison Method

Specifies the method by which data is restricted for a column. For example, to return orders for more than $1000.00, create a filter set that uses the “Greater” Comparison operator and enter 1000 in the Value field.

Competitor

An individual, company, or entity that might compete for the prospect that is the target of an opportunity.

Contact List

A set of contact records based on a segment definition. The list might contain all of the results returned by a query, might be part of an n-Select segment, or might be a random selection of records returned by a query.

Deferred Income

Unearned income liability due to revenues collected in advance that require obligations, benefits, or services to be rendered in the future before the income is realized. Typically, expenses will be incurred as the benefits or services are rendered such that the matching principle also kicks in. Examples of deferred income transactions include dues or subscription transactions in which the benefits might be realized equally over the 12-month term of the membership or subscription or an event registration in which the benefits coincide with the event date.

Display Order

The order that columns display in query results pages.

Document

An object saved in the CORE, for example, a Crystal report.

Driver Business Object

A business object that validates, at runtime, that a selected query will be able to drive an output process; for example, a driver business object for a Crystal report would create the

required index.

End Date
Date a campaign, appeal, or solicitation officially ends.

Entity
The legal financial entity for which a separate set of balanced financial accounts (or set of books) must be maintained independently. Although accounting information from different entities may be combined for consolidated reporting purposes, all transactions and accounts must be kept in balance for each entity.

External Web User
A low-level user with restricted access and privileges to enter orders and payment information and monitor the process of the shipment of the order.

Filter
One or more column-specific search conditions. For example, to search for all contacts who live in Texas or who subscribe to an organization's journal, define a filter set that returns only those contacts either in Texas or who subscribe to the journal.

Fulfillment
Completion of the obligation on the part of the selling organization to supply the product or service ordered to the customer. For stock items, fulfillment coincides with physical shipment of the goods. Once the fulfillment phase of an order is completed (or partially completed when allowed), the fulfilled lines can be invoiced and, if prepaid or accrued, recognized as income or deferred income.

Function
Summarizes some characteristic of the current set of rows. The functions that are available depend on the data type of the column you selected.



**Note:** You must select only one column when using a function. For example, if you want the maximum ID, ID must be the only column listed on the Display tab.

| | |
|---|---|
| Avg | Returns the average of the values in the specified column. |

| | |
|---|---|
| | (Numeric data type only) |
| Count | Returns the number of rows that are in the table or that meet certain conditions.<br>(Any data type) |
| Max | Returns the maximum value found in the specified column.<br>(Character and numeric data types) |
| Min | Returns the minimum value found in the specified column.<br>(Character and numeric data types) |
| Sum | Returns the sum of all values found in the specified column.<br>(Numeric data type only) |

Generate Output
Command that runs the output generation process.

Group
A collection of users assigned the same level of access to a specific area of functionality within iMIS.

Highest Transaction Amount
Maximum of all orders, gifts, and pledges attributed to one of the following:

- Source code
- All source codes within a campaign, an appeal, or a solicitation

Invoice Interface
Accounting process that will generate the invoice header invoice lines and invoice distribution lines based on the data passed from the commerce engine or an export file.

Journal Entries
Transactions that record a company's financial activity through various offsetting debit and credit accounts and amounts.

Message

Processed output (text) that is custom generated for a contact from a template using a letter generator.

Note

Notices to internal staff that are predefined during action plan building. Notes have no timeline designation and must be marked complete to advance the action plan.

Object

Self-contained element that consists of instructions to manipulate data, for example, a business object or a query object.

Project

An advantageous circumstance that could result in a positive action such as a purchase, registration, or donation.

Opportunity Administrator

A user who can set up and administer security and can perform module setup functions for the Opportunity Management module.

Process Class

A combination of standard data elements and structure that specify what data should be recorded about a project. This information can be used to guide the project to success and to analyze the success or failure of the project.

Opportunity Manager

A user who can create and manage opportunities.

Opportunity Owner

An individual or group who is assigned to an opportunity and has responsibilities to bring an opportunity to success.

Opportunity Source Code

The marketing source code and affiliated campaign/appeal from iMIS Campaign Management that may have produced the opportunity.

Opportunity Type

A class or category of opportunity that has its own unique set of processes. Opportunity types include information about the Opportunity Class, the default action plan, and the default Opportunity Owner.

Opportunity User
A user who has read-only access to the Opportunity Management module.

Order Management User
A mid-level user with limited access and privileges to specific maintenance and data entry areas involving order-related tasks. Different Order Management users may have different specific privileges depending on the tasks for which they are responsible.

Output Device
The physical method used to view the results of an output process, for example, a computer screen, a printer, or a PDF document.

Output Format
The format for data resulting from an output process, for example, Excel, HTML, or Word.

Output Process
A process-oriented task, for example, a Crystal report, Word merge, or query

Package
Content that is delivered to a prospect, such as a combination of messages and inserts, brochures, letters, and envelopes.

Parameter
A user-supplied value that dynamically customizes output. A parameter can be predefined or can require user input at runtime.

Parameterized Query
A query that requires a value from the user at runtime.

Payment/Adjustment Application
The accounting process that runs as the data is being posted. All posted transactions will be matched together (invoices, payments, and adjustments). If there are any GL entries

or due-to due-from balancing lines needed to be generated, the system will generate them.

Place of Business
Any location at which three or more orders are received by the retailer in a calendar year.

Posting
The process of submitting unposted invoice, adjustment, or payment data that converts the data to its permanent state. Once a transaction is posted, it can no longer be changed directly.

Preview
Option to view output without the physical file or document being generated.

Priority
The order in which the data for a particular column is sorted.

Process Definition
The set of runtime-specific instructions used to execute an output process.

Primary Contact
The target of a project. The primary contact for a project is not stored in the iMIS Prospect table.

Primary Contact List
A set of contact records based on a segment definition. The list may contain all of the results returned by a query, may be part of an n-Select segment, or may be a random selection of records returned by a query.

Primary Contact Record
The information for an individual primary contact from a prospect list.

Purge Inactive
The option for deleting all inactive campaigns. Only users assigned to the CampaignAdmin group can purge inactive campaigns.

Query

Criteria used to retrieve a subset of data from the iMIS database.

Query Segment

Segment populated by a query assigned to the segment. A query segment can be populated with the specified number of random records returned by the query.

Record-Level Access

The privilege granted to access a specific instance of data, such as a contact's record or a query.

Relation

The part of a query definition that specifies a relationship between two or more sources and is used to restrict the data the query returns.

Role

The assignment that allows one or more users and/or groups to perform specific functions and to access specific areas of functionality within iMIS.

Schedule Order

The order in which the tax authorities should be evaluated (for tax on tax).

Source

The data used to build query definitions. A source can be a business object or a query object.

Stage

A step in an action plan associated with a major milestone. A stage may include tasks, notes, documents, and e-mail notifications. Project status and win probability can be updated automatically at each stage completion or manually at any time.

Start Date

Date a campaign, appeal, or solicitation officially begins.

Status

Property setting for each campaign, appeal, solicitation, and source code.

Synchronize Responses

Option that triggers the response recognition process

Synchronous Process
A process that runs as a result of another process being completed.

System-Defined Groups
The groups created by default when you install iMIS. You can add new groups, but you cannot edit or delete system-defined groups.

System-Defined Roles
The roles created by default when you install iMIS. You can add new roles, but you cannot edit or delete system-defined roles.

Target Revenue
Monetary goal for each campaign and appeal (when Budget Level is set to Appeal) or for each solicitation and source code (when Budget Level is set to Source Code)

Task
An action or job that is associated with a minor milestone in an action plan. Users open tasks, update them with comments, and mark them completed. Completing tasks advances the action plan.

Tax Authority
A jurisdiction or geographical area to which a set of specific taxing rules apply.

Tax Category
A user-defined group of products that have common taxation rules. For example, food, clothing, or shipping.

Tax Schedule
The tax schedule combines all the Tax Authorities that apply to a particular customer location and dictates the rates that apply per each Tax Authority/Tax Category combination. The tax schedule also determines the order in which taxes are calculated when more than one tax applies.

Unearned Income

A liability that arises because the business received a payment and is obligated to deliver goods, perform services, or refund the payment in the future. When the prepaid case is deposited, the payment amount should remain categorized as an unearned income liability until the accompanying order is fulfilled. Unearned income is also the account that is used for unknown or unapplied payments which are awaiting further application instructions.

Update Status
A value selected by the user that triggers an update to an opportunity's overall status property when the action plan stage is completed.

Update Win Probability
The value that triggers an update to the opportunity's win probability property when the action plan stage is completed.

User
A record which has a unique login and can access the system. All users are automatically assigned to the Everyone role upon login.

User Permission
The privilege granted to one or more users, groups, or roles for allowing and limiting access to record-level data. The user permissions for the iMIS system are:

- Control (full control) - Grants complete access to record-level data (read, add, edit, delete).
- Read - Grants read-only access to an instance of data.
- Add - (Applicable only to folders) Allows users to save items to the folder.
- Edit - Allows users to modify an instance of data, including child records.
- Delete - Allows users to delete an instance of data.

Win Probability
A percentage value indicating the likelihood that an opportunity will be won.

Workflow Queue
Contains the iMIS tasks that are currently running, waiting to be run, or that have failed.

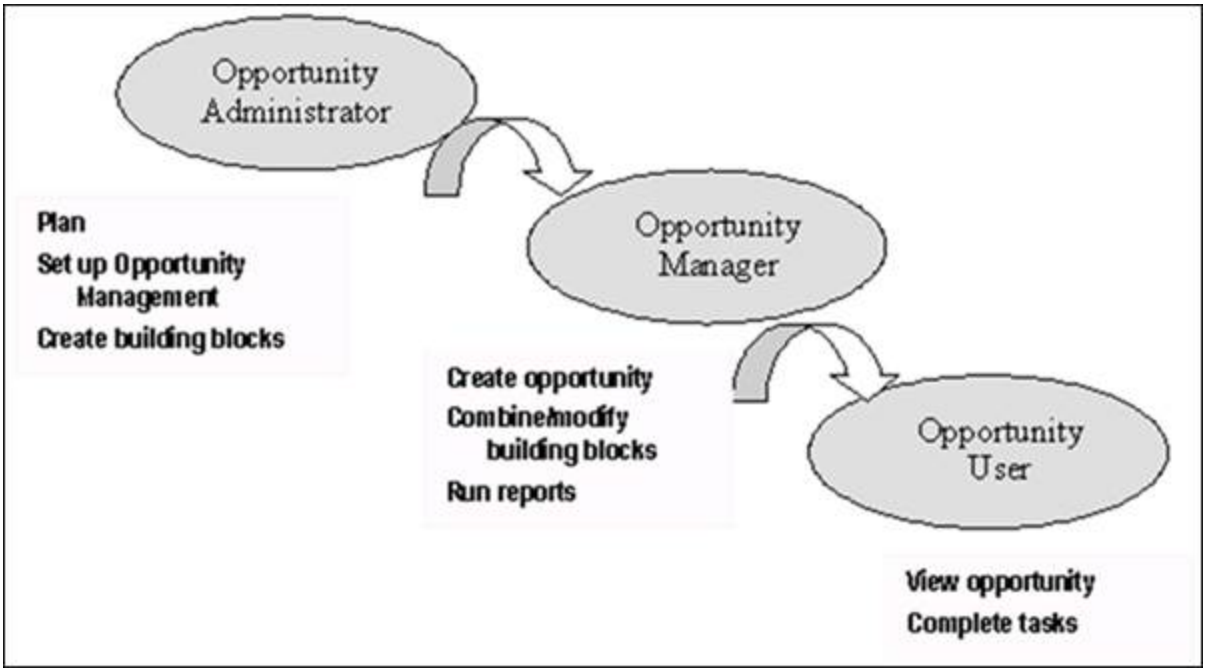
Process Manager roles

You can assign roles to the people in your organization to manage or to view appropriate information:

- A system administrator or director might create the building blocks for each general type of project/opportunity in your organization.
- Managers or business analysts might be given access to create projects/opportunities and to combine and modify the building blocks for each specific one.
- Staff operations personnel might be allowed to view all or some projects/opportunities and to view and modify tasks that have been assigned to them.

Click to view image

Process Manager group roles




## Using Process Manager

Process Manager can help you work more efficiently and effectively. As a Process Manager user, you have access to opportunities, tasks, and communications features that help you move potential projects to a successful win.

Using projects

A project is any circumstance that could result in a positive action for your organization, such as a purchase, donation, or registration.

| Project | Tasks | Communications |
|---|---|---|
| View | View | Generate e-mail messages |
| Define | Edit | Generate MS Word documents |
| Attach a document | | Run reports |
| Close | | Export Crystal reports |

To view a project

1. Go to **Community > Process Manager > Manage processes**.
2. iMIS displays all projects for which you have security access privileges.

To define a project

1. Go to **Community > Process Manager > Manage processes**.
2. Select a project. The tabs along the top of the project page define general information about the project:

- The **Summary** tab displays the details of the project, the contact, and related opportunities.
- The **Definition** tab displays summary information for editing.
- The **Action Plan** tab displays the action plan assigned to the project and the status of each task.

1. The **Security** tab displays security access rights for the project.
3. The tabs along the side of the project define detailed information about the project:

- The **Groups** tab displays the individuals associated with the project and their group roles.
- The **Tasks** tab displays required tasks, status, and notes.
- The **Documents** tab displays related documents.
- The **Activities** tab displays all activity within a prospect's record (from the Customer Portfolio).
- The **History** tab displays actions and progress in the project.

To attach a document to a project

You can attach documents that are related to the project, such as proposals and letters sent to the contact.

1. Go to **Community > Process Manager > Manage processes.**
2. Click the project to open it.
3. Click **Documents**.
4. Either browse to an existing file in the Document System or create a new file type:
a. Click **New**, and then select the appropriate file type.
b. Browse to the new file.
c. Click **Open**.
5. Click **Upload**.

To close a project

When you close a project, the project status changes to Complete and the project remains in the system for historical reporting purposes. The task history is saved with the project.

1. Go to **Community > Process Manager > Manage processes**.
2. Click the project to open it.
3. (**Definition** tab) In the **Project Status** drop-down list, select **Closed**.
4. Click **Save**.

Using tasks

Process Manager helps you manage the tasks associated with projects and opportunities. It's easy to see the tasks that are assigned to you and to prioritize your efforts to move a project to success. After you complete a task, you can mark it complete and determine whether there are other tasks needing your attention.

To view tasks

1. Go to **Community > Process Manager > Manage processes**.
2. Click the project to open it.
3. Click **Tasks**. The tasks assigned to you are displayed. If you are the Opportunity Owner, the system displays all tasks for the project.

To edit tasks

If you have editing access rights, you can modify tasks, including marking them complete.

1. Go to **Community > Process Manager > Manage processes**.
2. Click the project to open it.
3. Click **Tasks**.

4. Click **select** to select the task.
5. Perform your edits.
6. Click **Save**.

Using task communications

Your tasks may include sending messages to internal stakeholders or to prospects and producing reports. Some correspondence occurs automatically as a part of an action plan.

> **Note:** The following procedures assume that you have already created the relevant output process (see Creating output processes).

To generate email messages or MS Word merge documents

1. Go to **Continuum > Process Manager reports**.
2. Select the message or document.
3. Click **Run**.

To run a report

Process Manager reports use information from the iMIS database to present useful information to stakeholders. To access Process Manager reports, you must be assigned either to the Opportunity User group or to the Reporting group.

Standard Reports are available when you first open Process Manager. When you run a report, you might be asked to supply parameters (data required to run the report) or to choose options from a list.

To print Crystal reports (which includes both Print to Screen and Print PDF file to Screen), you must have Adobe® Reader® installed on both the server and your workstation. Go to the Adobe website to download the free reader software.

To cancel a print job, you must have permissions to the print server.

1. Go to **Continuum > Process Manager reports.**
2. Select the report.
3. Enter any required **Parameters** (data required to run the report).
4. Click **Run**.

5. (optional) If you have report editing security access, specify the print destination and formatting options.
6. Click **Preview**.
7. If the results are correct, click **Run**.
8. If you want to increase or reduce the items that are displayed, click **Change Parameters**, make the changes, and preview again.

To change the title of a report for printing

1. Go to **Continuum > Process Manager reports**.
2. Select a report.
3. Click **Edit**.
4. (**Summary** tab) Make sure to select **Modify field at runtime**.
5. Click **Save**.
6. Click **Run**.
7. Enter the new name for the report in the **Name** field.
8. Click **Run**. Note the new name of the report.

To export a Crystal report

1. Go to **Continuum > Process Manager reports**.
2. Select a report.
3. Select **Output**.
4. Select **Print to Screen**.
5. Enter any required **Parameters** (data required to run the report).
6. Click Save.
7. Click Cancel.
8. Click **Run**.
9. Click **Export** in the report.
10. From the **Format** options, select an export format.
11. Click **Export**.

Managing projects

If you are an Opportunity Manager, Opportunity Creator, or Opportunity Administrator, you can perform the following actions, in addition to user tasks:

| Opportunities | Communications |
| --- | --- |

| | |
|---|---|
| Create | Select message recipients |
| Edit | Select report data |
| Delete | Copy, edit, delete, and create output processes |

Setting up and editing projects

If no Opportunity Owner is specified, the creator of the project becomes the default owner.

To create a project

1. Go to **Community > Process Manager > Manage processes**.
2. Click **Create New Project**.
3. Select a Process Type:
   - Donor
   - Member
   - Sales
4. Click **OK**.
5. Enter a **Description** for the project and identify the **Primary Contact** for the project.
6. (optional) Click **select** to select the **Source Code** associated with the project.
7. Click **Save**.

   The **Products**, **Subscription**, and **Distributions** fields can be specified by selecting values from a drop-down list, if the underlying tables have been set up:

- For Sales Opportunity types, the **Products** drop-down list is populated by the members of the **Products** table defined in **Accounting > Options > Set up tables > Set up products**.
- For Member Opportunity types, the **Subscription** drop-down list is populated by the **Products** defined in **Configure > Billing > Set up billing products** which have the Product Types of **SUB** and **DUES**.
- For Donor Opportunity types, the **Distribution** drop-down list is populated by the **Distributions and Premiums** defined in **Configure > Fundraising > Set up tables > Set up distributions and premiums**.

  If the Primary Contact has one or more sales representatives or regional managers associated in relationships (see Determining roles and responsibilities), these people will be

assigned to the project automatically. You can view the assigned salesperson and manager information by opening a project and selecting Groups > Owner Roles.

> **Note:** If a solicitor is designated for the primary contact in the **Donor Data** tab of the **Customers** module, the solicitor will also be assigned to the new project.

If you need to create more relationships that create group owners automatically, you can update the string parameter "OpportunityDefaultOwnerRoles" in the SystemConfig table. The current string is: 'Salesperson!<solicitor>!SALES,Sales Manager!MB,Regional Manager!RM'. Additional relationships can be added by Adding ,[Role Name]![Relationship Name] to that configuration string.

To edit a process type

You can override the default settings for a project when you create the project. If you are the Opportunity Owner, you can make changes to the project at any time. The options for editing are:

- Edit the project summary
- Change the default action plan
- Bypass a stage in the action plan
- Add tasks
- Change the task owner
- Edit project security settings
- Edit project group roles

  You can add new contacts to opportunity group roles. Before a new contact is added to the database, you are notified of possible duplicates. At this point, you can continue or cancel the insert.

  Contact records that are added from a project follow the same data entry standards as records added through Customers, except:

- The system does not consider values for the **Auto Assign Member Numbers**, **Institute Type**, and **Suppress Individual Name Fields** for Company Records fields on the **Customer Setup - Basic Options** page.

- The values for the **Major Key Prompt**, **Must be Unique**, and **Flow from ID** fields on the **Customer Setup - Basic Options** page are not relevant.
- The system does not consider whether the **Disable Auto Flow Down of Company Address Information** field on the **Customer Setup - Advanced page** is enabled.

To edit the project summary

1. Go to **Community > Process Manager > Manage processes**.
- Select the project to edit:
- (**Definition** tab) Edit general project information.
- (**Summary** tab) In the **Primary Contact** area, select the primary contact's name to view or edit prospect information.
- (**Summary** tab) Scroll to the **Related Projects** area. Select a project to edit a related project for this contact.
2. Click **Save**.

To delete a project

When you delete a project, the Project Status changes to Canceled and the project remains in the system for historical reporting purposes.

1. Go to **Community > Process Manager > Manage processes**.
2. For each project that you want to delete, select the corresponding checkbox.
3. Click **delete selected**.

Editing action plans

To replace the action plan

The project owner can replace the action plan for an active project at any time. All completed tasks, notes, and email notifications are preserved in the project history.

1. Go to **Community > Process Manager > Manage processes**.
2. Select a project.
3. (**Action Plan** tab) In the **Replace Action Plan With** list, select the desired action plan.
4. Click **Change Action Plan**.
5. Click **Save**.

To bypass a stage in the action plan

The project owner can easily bypass any intermediate stage in the action plan, if that stage has become irrelevant to the completion of the action plan. When you bypass a

stage in the action plan:

- The next stage starts.
- All incomplete (or never begun) tasks, notes, and e-mail notifications from the bypassed stage are marked with a Cancelled status.

1. Go to **Community > Process Manager > Manage processes.**
2. Select a project.
3. (**Action Plan** tab) In the **Current Stage** list, select the desired current stage.
4. From **the Update Previous Stages Status** list, select the status of the stage to be bypassed.
5. Click **Change Current Stage**.
6. Click **Save**.

To add tasks

1. Go to **Community > Process Manager > Manage processes**.
2. Select a project.
3. Click **Tasks**.
4. Click **add**. Complete the task information.
5. **Click Save. The new task appears on the task list.**

To change the task owner

If you have access privileges, you can change the owner of a task to any Opportunity Owner who has a defined user record.

1. Go to **Community > Process Manager > Manage processes**.
2. Select a project.
3. Click **Tasks**.
4. Click **select** for the task you want to modify.
5. Next to **Assignee**, click the browse button to find a new person that you want to assign as the new task owner.
6. Click **Save**. The task appears in the new owner's task list.

Editing security settings and roles

To edit project security settings

Project security settings specify the access rights of participants.

1. Go to **Community > Process Manager > Manage processes**.
2. Select a project.
3. (**Security** tab) Select the desired **Access Settings**:

- Select **Use a preconfigured security set** to select preconfigured access rights, for example, select **Everyone Full Control** to grant full control to all users.
- Select **Make this available to** to customize the access rights:
- Select a **Name** in **Specific Roles** to customize permissions.
- Select a **Group** in **Specific Groups** to customize permissions.
- Click **Add user** in **Specific Users** to add a specific user, and define permissions for that user.
- Select a **Name** in **Specific Member Types** to customize permissions.

4. Click **Save**.

To edit project group roles

Project group roles describe the responsibilities of participants.

1. Go to **Community > Process Manager > Manage processes**.
2. Select a project.
3. Click **Groups**.
4. Select the group role name (Contacts, Owners, Competitors if enabled, others).
5. Click **Edit Role Members**.
6. In the **Select From** area, select a query from the **Select a Query** list.
7. Select the member to add to the **Current Members** list.
8. (optional) Add a new member:

- Click **Add New**.
- Enter the information.
- Click **Save**.

9. Click **Save**.

To edit project types

If the default project types are similar to those your organization uses, you can simply change the default properties. Changes to process type definitions are not retroactive to existing projects.

Managing project communications

Process Manager gives you the power to manage effective communications with your prospects and within your organization. As an Opportunity Manager or Opportunity Administrator, you can:

- Use queries to select message recipients
- Use queries to specify report data
- Edit, copy, or delete output processes that specify reporting, email, or Word merge processes

> **Note:** The following procedures assume that you have already created the relevant output process (see Creating output processes).

To select message recipients or report data

Run a predefined query to select the recipients for a message or the data elements for a report.

1. Go to **Continuum > Process Manager Reports**.
2. Select **QueriesView**.
3. Select a query.
4. (optional) Click **Edit**. Make any necessary changes to the **Sources**, **Filters**, **Display**, and **Sorting** information. Click **Save** or **Save As** and save the edited query.
5. Enter any required parameters (information needed to run the query).
6. Click **Find**.
7. If the results are correct, click **Run**.

To edit an output process

1. Go to **Continuum > Process Manager Reports**.
2. Select the output process.
3. Click **Edit**.
4. Make any necessary changes to the **Sources**, **Filters**, **Display**, and **Sorting** information.
5. Click **Save** and save the edited query.

To copy an output process

1. Go to **Continuum > Process Manager Reports**.
2. Select the output process.
3. Click **Edit**.

4. Click **Save As**.
5. Enter a name for the new output process.
6. Click **OK**.
7. Define the new output process.
8. Click **Save**.

To delete an output process

1. Go to **Continuum > Process Manager Reports**.
2. Select the output process.
3. Select **Organize > Delete**.
4. Click **OK**. A message is displayed indicating the deletion was successful.
5. Click **Close**.

### Administering Process Manager

The Opportunity Administrator performs module set up tasks:

**Planning the implementation**: This critical step can be completed with stakeholders throughout your organization. Thorough planning will result in a shorter startup time and a more effective tool for users.

**Installing Process Manager**: The administrator creates the “building blocks”, including action plans, group roles, queries, and reports, for users to apply and modify.

**Tailoring Process Manager**: The administrator adds or modifies attributes to meet the unique requirements of your organization.

Planning Implementation

The success of your Process Manager installation lies in the planning. By planning carefully, you can make sure Process Manager helps your staff work efficiently and effectively. The planning step is the most important part of the implementation, resulting in:

- A smooth startup
- Correct security access to sensitive data
- Appropriate processes for each prospect and situation
- Useful communications and reporting

The planning process:

1. Identify the general types of projects your organization encounters and what is unique about each type.
2. Determine the specific roles and responsibilities required for each project type.
3. Build action plans that embody the best practices of your organization, including communications and reporting needs.
   Tips for implementation planning:

- Focus on building relationships, not on data entry.
- Clearly identify your prospect/donor types and the different methods your organization will use to build relationships with each group.
- Draw a map of the players involved. Note the communications and reporting needs of each player.
- Consider how you will process a won opportunity. Build the handoff into your plan and be sure the transactions that are generated (orders, events, donations) will be handled correctly.
- Establish naming conventions to help organize projects, documents, and reports. A unique prefix for each department might be appropriate for your organization.
  Identifying Process types
  By defining one or more process types, the Opportunity Administrator provides templates for Opportunity Managers to create new opportunities quickly. You can create a process type for each action plan, for each type of prospect, for specific reporting requirements, or whatever criteria best meets the needs of your organization.

  Process type concepts and terms
- A process type is a category of projects that has a unique set of processes. Process types include information about:
- Default action plan
- The action plan most often used for this process type.
- Default owner
- The most likely owner of this process type.
- Opportunity Class
- A combination of standard data elements and structure that specify what data should be recorded about the opportunity.

- Default Opportunity Classes (Donor, Member, Sales) are provided in iMIS. You can build additional Opportunity Classes that meet the unique needs of your organization.

Tips for planning process types

- Structure process types to optimize the time it takes to set up data entry and reporting for an opportunity. You might create a process type based on geography or type of prospect, for example.
- Create a new process type when you need a new strategy to develop a new prospect group or when data entry and reporting needs are very different for different areas or prospects.

Process types example: Non-profit organization

In this example, our non-profit organization has current members and donors. In addition, non-members purchase conference proceedings and books. The default process types are sufficient for our process.

| Process Type | Default Action Plan | Default Owner |
|---|---|---|
| Donor | Donor Giving | Director of Fundraising |
| Member | Annual Conference | Director of Events |
| Sales | Publications | Director of Publications |

Attaching document templates to a process type

You can attach multiple document templates to a process type. Each new project created from the project type contains its own unique copy of the attached documents, which you can edit as needed for the project.

> **Note:** You can attach only documents that are locally saved on your computer. For this procedure, do not attempt to specify documents that are located in iMIS folders.

To attach document templates to a project type

1. Go to **Community > Process Manager > Set up processes**.
2. Ensure that the documents to be used as templates for the project type are locally saved on your computer.

3. (**Process Types** tab) Click **select** to select a project type, or click **Create Process Type** to create a new project type.
4. (**Documents** tab) Select **New**, and then select the type of file that you want to upload.
5. Click in the **Select file** field. A file selection window is displayed.
6. Browse to the file that you want to upload and click **Open**.

   **Note:** If the file **Type** that you choose does not match the file extension (for example, **.doc** for an **MS Word Document**), the upload will fail.

7. (optional) In the **Description** field, enter a short description of the document template.
8. Click **Upload**. The uploaded document is listed in the project page.
9. Repeat this process for every document template that you want to attach to this process type.
10. Click **Save**.

Determining roles and responsibilities

Identify the participants who will be involved in the life of a project. Understanding the different roles and responsibilities gives you the information you need to set up security, data collection, and reporting for the module.

The roles you will set up for Process Manager are:

- Project security roles, which govern access and control
- Project group roles, which specify responsibilities

Project security roles

Assign each participant to one of the security roles specific to Process Manager:

- **Opportunity Administrator**: A user who sets up and tailors Process Manager.
- **Opportunity Manager**: A user who creates projects and specifies owners, action plans, and tasks. A person with this role has full control over projects created by anyone else.
- **Opportunity Creator**: A user who creates projects and has full control over projects that they create, but has no access to projects created by anyone else.
- **Opportunity User**: A user who has read-only access to projects.

Project group roles

When creating projects, you assign each participant to one of these general roles provided by the system:

- **Primary Contact**: The target person to be contacted for the successful outcome of a project.
- **Opportunity Owners**: The group of users who are eligible to be Opportunity Owners (responsible for a project's success). A user must be a member of this pool in order to be assigned as owner to any individual project.
- **Contact**: A participant who is associated with the project, but does not necessarily own its ultimate success.
- **Competitor**: A company, or entity that may compete with the organization for the project. Typically this role is only used for sales business scenarios and not for fundraising or membership drives.

  If you need more specific roles, you can assign each participant in a group to a descriptive role or roles. For example, the Opportunity Owners group might include:

- Sales Directors and Sales Representatives
- VP of Major Gifts and Major Gift Managers

  Or they might include other job titles specific to your organization, for which you would need to create project group roles. These roles are custom roles you create using Process Manager.

You can automatically create group owners for projects using relationships. If you set up a SALES or RM (Regional Manager) relationship for a project's primary contact, they are automatically group owners. Owners belong to a security group that can gain access to certain areas based on how you set them up to access the system.

Another relationship creates a project owner, the MB (Managed By) group also creates a Sales Manager group owner. If you need to create more relationships that create group owners automatically, you can update the string parameter "OpportunityDefaultOwnerRoles" in the SystemConfig table. The current string is: `'Salesperson!<solicitor>!SALES,Sales Manager!MB,Regional Manager!RM'`. Additional relationships can be added by adding `,[Role Name]![Relationship Name]` to that configuration string.

Associating personnel with prospects

Before iMIS can associate personnel with new projects based on the designated prospect, you must set up customer relationships in iMIS, which consists of two steps:

1. Set up sales and management relationship types.
2. Associate sales persons or managers with prospects.

To set up sales and management relationship types

1. Go to **Configure > Membership > Set up tables > Set up relationship types**.
2. Check **Current Relationship Types** and ensure that the following codes are defined:

- **Code**: SALES **Description**: Salesman
- **Code**: RM **Description**: Regional Manager

Tip for planning roles and responsibilities

Make sure all personnel who are eligible to be the owner of a project are included in the Opportunity Owners group. Future additions must be done by the Administrator, not by Opportunity Managers, Opportunity Creators, or Opportunity Owners.

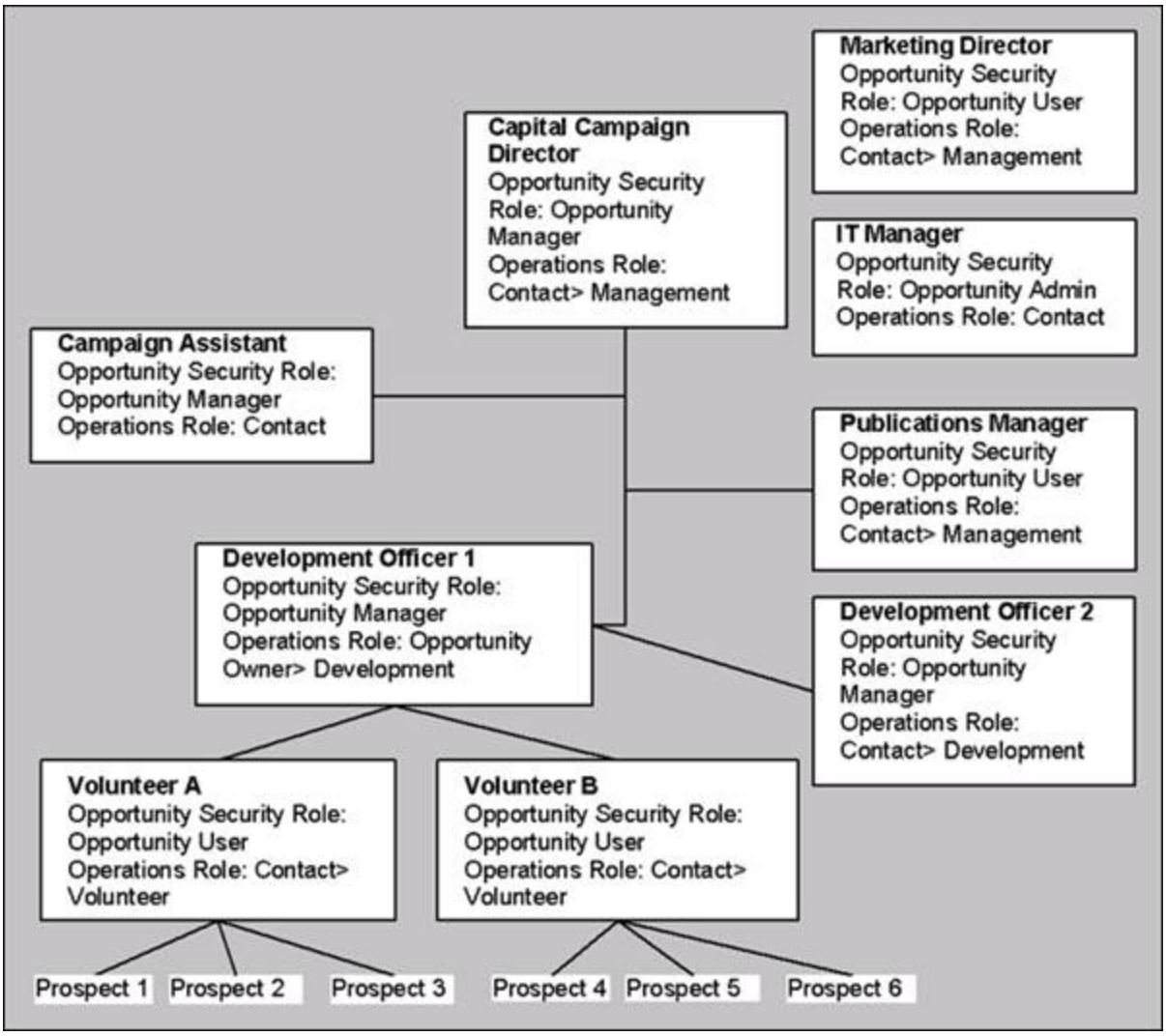
Roles examples

The following examples show how you might set up roles and responsibilities within Process Manager for your organization.

Roles example: A capital campaign drive

After the IT Manager sets up the Process Manager system, the Capital Campaign Director identifies new projects and assigns Development Officer #1 to be the owner of the new project. The Development Officer communicates with prospects and contacts. The Campaign Assistant creates projects when the Campaign Director is out of the office and provides reports to upper management.

Based on this scenario, the following project security roles and project group roles are assigned to the participants:



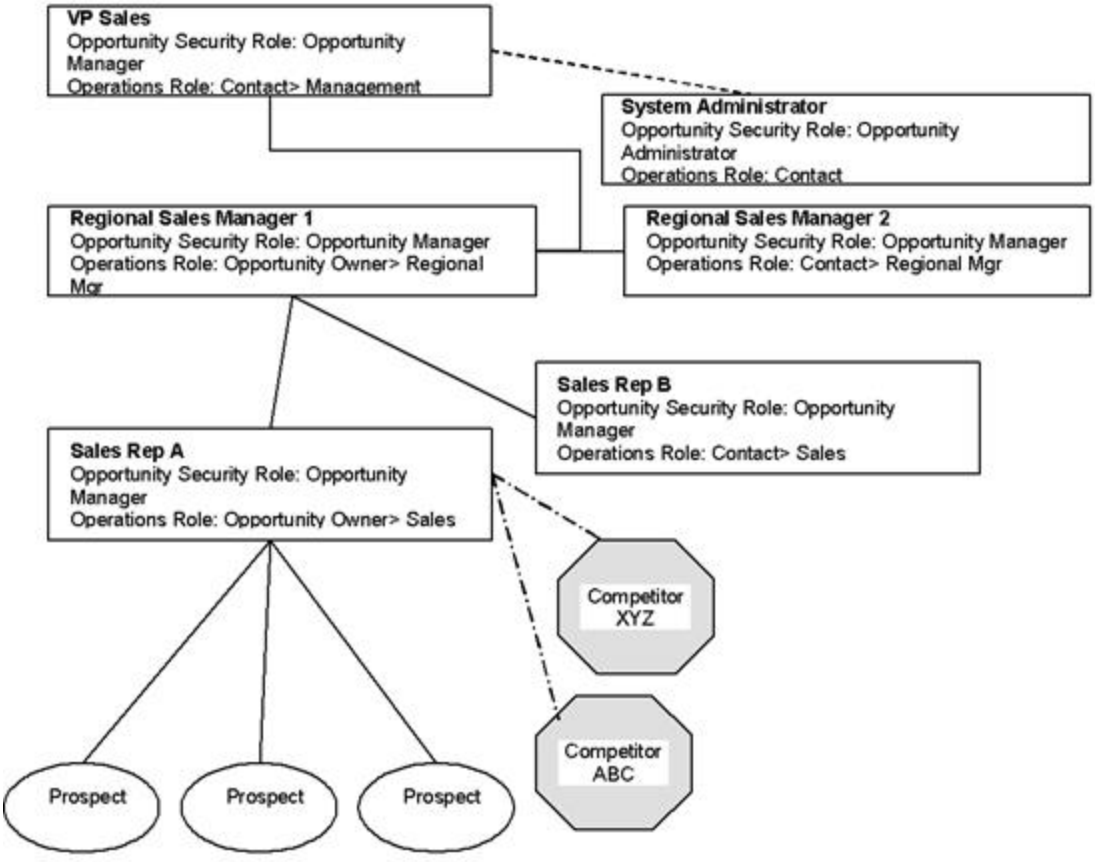

The communications and reporting needs for these roles might include:

| Role | Communication Needs |
|---|---|
| Capital Campaign Director | Opportunity Forecast Donor report |
| Campaign Assistant | (Runs all reports) |
| Publications Manager | E-mail notification of project status |
| Development Officers | Opportunity Profile<br><br>E-mail notification of project status |

| | |
|---|---|
| Volunteers | E-mail training materials<br><br>Task report |
| Prospects | Mail brochure<br><br>E-mail promotion information |

Roles example: A sales department

In this example, the System Administrator sets up the module. The VP Sales assigns projects by region. The Regional Sales Manager #1 and Sales Rep A are both responsible for the success of the project (Opportunity Owners) but play different roles in the process. Contacts are other Sales Managers. There are two Competitors in this example.




The communications and reporting needs for these roles might include:

| Role | Communication Needs |
| --- | --- |
| VP Sales | Won or Lost Opportunity Analysis |
| Regional Sales Managers | Won or Lost Opportunity Analysis<br>E-mail notification of project status |
| Sales Reps | Opportunity Profile<br>Task List |
| Prospects | Mail brochure<br>E-mail promotion information |

Building action plans

Action plans are a workflow management tool. The Opportunity Administrator defines one or more default action plans that are available to Opportunity Managers. The managers create new projects, choosing from the default action plans and modifying them, if necessary, for the unique situation.

Concepts for action plans

- **Action plans** - Pre-defined tasks that take place in a certain order and in a specific time frame. Action plans are made up of stages. Stages contain tasks, notes, and email notifications.
- **Stage** - A major milestone in the project. A stage may include tasks, notes, and email notifications. Project status and win probability can be updated automatically at each stage completion, or manually at any time.
- **Task** - A minor milestone in the project. Users open tasks, update them with comments, and mark them completed. Completing tasks advances the action plan as long as all notes are completed for the task.
- **Notes** - Notices to internal staff that are predefined when creating an action plan. Notes have no time line designation and must be marked complete to advance the action plan.

- **Email notification** - Email messages are sent to the designated owners at the start of a stage, so if you want Process Manager to send an email message when stage 2 is complete, then put the email notification at the beginning of stage 3.
  Action plans advance by:

- The completion of all tasks and notes within a stage.
- Manual intervention to change the action plan or to bypass one or more tasks/stages.
  An action plan stage that lacks at least one task or one note does not advance to the next stage. Therefore, you should attach at least one task or one note to each stage so that the action plan continues to advance. This design means that the action plan defines “best practice” and enables users to work within that best practice for the needs of the prospect.

The Tools console

The Tools console is your centralized administration tool for these tailoring functions. Use Tools to:

- Set up queries, reports and output processes
- Manage system-wide security
- Set up iMIS modules
  The Intelligent Query Architect (IQA) simplifies data access for reports, mailings, and letter merges. The user interface makes it easy for a user with limited SQL experience to perform SQL-like query building tasks. The queries created in IQA use business objects and other queries as data sources to best represent the database schema in a context that is meaningful to your organization.

  The Document System is a server-side file system that gives you the power to set up a structure for queries, reports, processes, and templates. In addition, you can add process engines that define business processes, such as adding new opportunities automatically based on specific criteria.

Tips for developing action plans

- Notifications can be sent at the end of each stage, so make your stages large enough that stakeholders are not inundated with minor notifications.
- Make sure each task serves a purpose. Be realistic about task due dates.

- Use notes carefully. They are an excellent instructional tool, but action plans cannot be advanced until the note is marked complete.
- Discuss what events might require an alternate plan: fast track, bypass a stage, stop the action plan.
- Determine industry standards and use those as your guide.

Action plan example: Sales action plan

This example shows a possible action plan for selling a new product to existing customers. First, we define the stages of the plan:

| Stage | Description | Win Probability | Change Status to |
|---|---|---|---|
| Qualification | Process to qualify prospect | 0% | Relationship Building |
| Relationship Building | Calls and customer visit | 0% | IT Briefing |
| IT Briefing | Customer visit | 25% | Custom Demonstration |
| Custom Demonstration | Present a customized demo to staff | 25% | Executive Meeting |
| Executive Meeting | Address executive issues | 25% | Web Strategy Meeting |
| Web Strategy Meeting | Present web strategy | 25% | Competitive Review |
| Competitive Review | Review and discuss product vs. competition | 50% | Proposal Presentation |
| Proposal Presentation | Prepare and present proposal | 75% | Contracting Process |
| Contracting Pro- | Confirmation of award | 100% | Complete |

| | | | |
|---|---|---|---|
| cess | | | |

Next, we define the tasks for each stage:

| Stage | Task | Description | Owner | Day | Duration |
|---|---|---|---|---|---|
| Qualification | Initial Overview Meeting | Review of Information Process | Sales Manager | 0 | 1 |
| | Prospect Profile | Complete profile | Sales Rep | 0 | 1 |
| | Evaluation Plan | Complete and distribute plan | Sales Manager | 1 | 1 |
| | Process Signoff | Letter confirming mutual interest. | Sales Manager | 2 | 1 |
| Relationship Building | Questionnaire | Call prospect and ask questions about organization needs | Sales Rep | 3 | 1 |
| | Pre-demo Survey | Complete survey | Application Engineer | 4 | 1 |
| | Pre-meeting Checklist | Complete checklist | Sales Rep | 4 | 1 |
| | Customer Visit | Local on-site customer visit | Sales Rep | 5 | 1 |
| IT Briefing | IT Preparation | Prepare for IT briefing | Product Manager | 7 | 2 |

| | | | | | |
|---|---|---|---|---|---|
| | IT Briefing | IT and Product Management briefing Present Buy or Build concept | Product Manager | 9 | 1 |
| Custom Demonstration | Prepare Demo | Customize demo to prospect | Sales Rep | 10 | 2 |
| | Custom Demo Meeting | Present solution to staff | Sales Rep | 12 | 1 |
| Executive Meeting | White Paper | Present white paper to execs | Sales Manager | 14 | 1 |
| | Executive Briefing | Meet with executives | Sales Manager | 16 | 1 |
| Web Strategy Meeting | Prepare Web Strategy | Prepare presentation for meeting | Sales Rep | 12 | 2 |
| | Web Meeting | Present web strategy to staff + IT | Sales Rep | 14 | 1 |
| Competitive Review | Competitive Review | Read recent competitive information Prepare for discussion | Sales Rep | 13 | 1 |
| | Competitive Meeting | Meet with decision maker | Sales Rep | 14 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| | | to discuss advantages of product | | | |
| Proposal Presentation | ROI Analysis | Prepare analysis | Sales Rep | 17 | 1 |
| | Proposal Prep | Prepare proposal | Sales Rep | 15 | 3 |
| | Proposal Presentation Prep | Prepare presentation | Sales Rep | 17 | 1 |
| | Proposal Review | Onsite proposal review meeting | Sales Rep | 18 | 1 |
| | Proposal Follow-up | Answer outstanding questions, contact participants | Sales Rep | 19 | 3 |
| Contracting Process | Legal Review | Prepare legal documents | Counsel | 17 | 2 |
| | Win | Confirmation and signing of documents | Sales Rep | 22 | 1 |

Mapping Action plans

Mapping out the action plans for your organization before you implement Process Manager helps you build action plans quickly and correctly.

1. Interview stakeholders to determine what processes your organization uses and what are considered “best practices.”

2. For each action plan, map out the stages (high-level view) of the process. Specify the win probability for each stage and the change in project status when each stage is complete.
3. Plan the detailed tasks within each stage. Assign relative start dates and the duration of each task.
4. Determine if notes should be attached to tasks. Be aware that notes are not included in the task list and must be accessed separately.

Process Manager: Set up module

Before implementing Process Manager, make sure you have completed all the planning steps recommended. You must have Process Manager or System Administrator privileges to set up Process Manager.

We highly recommend that you build a prototype first in a test environment and later in a live environment. This gives you the opportunity to check that all test examples (role members, security groups, process engines, and users) have been removed from the system before going live.

To implement Process Manager, you will:

1. Assign users to project security roles.
2. Create or edit process types, if needed.
3. Create default action plans.
4. Set up output processes and reports.

> **Note:** If you have configured iMIS for SQL server sessions, the Process Manager module and all of its components are unsupported. If you plan to use this module, disable SQL Server Sessions.

Setting up security for Process Manager

When a new project type is defined, the **Grant Project Access** list for the project type automatically contains every iMIS user who is a member of the following security groups at the time of creation:

- **OpportunityAdmin** – Sets up and tailors Process Manager.
- **OpportunityMgr** – Creates projects and specifies owners, action plans, and tasks. A person with this role has full control over projects created by anyone else.

- **OpportunityCreators** – Creates projects and has full control over projects that they create, but has no access to projects created by anyone else.
- **OpportunityOwners** – Edits only assigned projects.
- **OpportunityUsers** – Has read-only access to projects.

When a new project type is defined, the **Grant Project Access** list for the project type automatically contains every iMIS user who is a member of the first four Opportunity security groups at the time of creation. Similarly, if you define a new user record and assign the new user to one of these security groups, that user is automatically added to the **Grant Project Access** list for every existing project type.

Project administrators can restrict each project type to a specific **Grant Project Access** list of users who have permission to create projects from that type. This allows for one type of process (such as Sales or Major Gift) to be secured from users who manage events or review grant proposals.

To assign users to project security-related groups

Project security-related groups specify levels of access and control for individual projects.

All users must have an individual contact record in Customers, an email address in their contact record, and an up-to-date user record and password in their authentication record.

Do the following to assign users to project security-related groups:

1. Go to **Community > Process Manager > Set up processes**.
2. (**Security Groups** tab) Select the security-related group (see Determining roles and responsibilities).
3. Select each user to be added to the group. The user's name appears in the Current Members list.
4. Click **Save**.

Creating and editing process types

Use the process types (see Identifying Process types) feature to efficiently set up similar types of projects. You can create a process type for each action plan, for each type of prospect, for specific reporting requirements, or whatever criteria best meets the needs of

your organization.

To create process types

1. Go to **Community > Process Manager > Set up processes**.
2. (**Process Types** tab) Click **Create Process Type**.
3. Define the process type:
   - Enter the **Name** and **Description** of the process type.
   - Select the **Process Class** and **Default Action Plan**.
   - Browse to select the **Default Owner** for this process type. The default owner must be a member of the Opportunity Owners group.
   - (optional) Enter or select the default **Owners Roles** and **Contacts Roles**.
   - (optional) Enable the **Allow Competitor References** option.
   - Click the browse icon to **Grant Project Access**:
   - In the **Groups Properties** window, enter the **Name** and **Description**.
   - Select or **Add** members to the group.
   - Click **Save**.
4. Click **Save**.

The Setup Groups Page

To edit groups for use in the **Owner Roles** and **Contact Roles** assignments, select **Process Mgr > Set up module**, select an existing **Process Type**, then click the browse button next to **Grant Project Access**. Groups are created when you create a new **Process Type**. From the **Grant Project Access** window, you can add or remove group members.

Creating multiple projects

As an Administrator, you can configure an output process to create multiple projects so that it creates a project for each primary contact identified by a query associated with the project process output. For example, you might want to identify contacts who respond to an initial request and, therefore, warrant additional one-on-one marketing efforts.

A Process Manager Administrator can create multiple projects by defining, editing, or selecting a query and an project process output. If you are licensed for Campaign Management, you can also associate a source code with the projects.

To create multiple projects from Process Manager

1. Go to **Community > Process Manager > Set up processes**.
2. Select **New > Project Process Outputs**.
3. Use **Save As...** to copy an output process or create a new one:
- (**Definition** tab) Enter the **Name** and (optional) **Description**.
- From the dropdown list, select the **Type**.
- Browse to select the **Query**.
- (optional) If you are licensed for Campaign Management, browse to select the **Source Code**.
- Click Save and select the location or use the default location.
4. Click **OK**.
5. Select the new Project Process Outputs.
6. Click **Run**. A message is displayed noting that the process has been submitted or indicating an error.
   A new project is automatically generated for each primary or key contact identified by the query. Every time you run the output process, it generates projects. To avoid creating duplicate projects, be careful not to run the same query and the same project process output engine more than once, or, ensure that your query is excluding already opened projects.

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About defining action plans

Opportunity Administrators can define one or more default action plans that are available to Opportunity Managers. The managers create new projects, choosing from the available action plans and modifying the plans, if necessary, for the unique situation.

If you want to provide the option of creating projects with no action plan, define an empty action plan named “None.”

Action plans are made up of stages (major milestones) which are made up of tasks (minor milestones), email merges, and notes. Action plans are defined with the following workflow:

1. Define the action plan.
2. Define stages for the action plan.
3. Add tasks to the stages.

---

4. Optionally, add notes to the stages.
5. Optionally, add email notification to the stages.
6. Save the action plan and use it to mark progress through each stage.

Copying action plans

You can save a copy of an action plan, change its title, and modify the copy.

> **Note:** You must select new assignees if you change the action plan's related process type, because the list of available assignees for tasks and email notices is based on the related process type. Each time you change an action plan's process type and click **Save**, the assignee lists are cleared and must be reassigned.

To save a copy of an action plan

1. Go to **Community > Process Manager > Set up processes**.
2. (**Action Plans** tab) Select the action plan that you want to copy.
3. Click **Save As**. A new copy of the action plan is created with the name **Copy of [original Action Plan]**.
4. Change the name and description of the new action plan.
5. Click **Save**.

> **Note:** You must click **Save** to set the related process type before you specify assignees, because the list of available assignees is based on the related process type.

6. If you changed the action plan's process type, check the Assignee list for every task and email notification in the action plan to ensure that a valid assignee from the new process type is assigned.
7. Click **Save**.

Setting up reports and output processes

iMIS Reports and Output Processes tools give you the power to optimize communications within your organization and with outside contacts. The output processes use the current iMIS database and can be exported to a variety of output formats. Use the Reports and Output Processes tools to:

- Create and manage custom business data
- Use queries and business objects to generate output
- Customize reports
- Assign folder and document security

  Your iMIS administrator and users with the proper security roles (see Security Administration) can create template reports and output processes (see Reports and Output Processes). After these are built, your staff can use these to generate reports and email messages, send MS Word letters to contacts, and export data to Excel spreadsheets or other analysis tools without detailed knowledge of database structure or report configuration.

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Email merge fields for projects

Three read-only reporting business objects allow you to include the current opportunity, prospect, and assignees in an email merge output process (see Defining output processes):

- OppDonorContact
- OppMemberContact
- OppSalesContact

  You can use fields from these objects in an email template and its corresponding selection query. Make sure to use the tablename.fieldname format (**OppSalesContact.ProspectName**), not the view name format (**vBoOppSalesContact.ProspectName**).

  To allow the user to link directly to the opportunity from the email they receive, include the following link code:

```
http://{web-
server-
}/iMIS/Ad-
min/iMIS.web.Pro-
cessM-
gr.Pro-
cess-
```

---

man-
age-
ment/iMIS/Con-
tentManagement/Template.aspx?ContentCode=OM.OpportunityList.?hkey=
[OppDonorContact.Project Key]

where {webserver} is the name of the .NET server

OppDonorContact may be OppDonorContact, OppSalesContact, OppMemberContact

Output process example: email message
The following example is a simple new opportunity email notification to the Opportunity Owner.
Dear [OppSalesContact.Name],
The [OppSalesContact.OpportunityId] opportunity has been assigned to you.
The prospect's name is [OppSalesContact.ProspectName].

Customizing Process Manager
You can customize Process Manager to best meet the needs of your organization and your users:

- Create and edit query results displays
- Modify security settings

Please contact your Authorized iMIS Solution Provider for information on adding and modifying attributes for further customizing of Process Manager.

Editing query result displays
Use IQA to create and edit queries that filter and sort data from the iMIS database. Then, edit the results displays to best meet the needs of your users.

Query results displays are identified by a green background color for headings. The following folders contain queries used by Process Manager that are appropriate for editing. Folders not listed contain system files and we recommend that you do not edit those queries.

| Folder | Path to Display | Possible Addi- |
| --- | --- | --- |

| | | tions to Displays |
|---|---|---|
| ActionPlanList | RiSE > Intelligent Query Architect > $/Op-por-tunityManagement/DefaultSystem/Queries | |
| ActivityList | RiSE > Intelligent Query Architect > $/Op-por-tunityManagement/DefaultSystem/Queries | |
| AllOppTaskList | RiSE > Intelligent Query Architect > $/Op-por-tunityManagement/DefaultSystem/Queries | Overdue tasks<br>Upcoming task due dates<br>Comment field on task display |
| OpportunityTaskList | RiSE > Intelligent Query Architect > $/Op-por-tunityManagement/DefaultSystem/Queries | Opportunities with upcoming tasks<br>Opportunities with overdue tasks<br>Contains the same queries as AllOppTaskList, but<br>Oppor-tunityTaskList involves tasks for a particular<br>Opportunity |

| | | |
|---|---|---|
| | | rather than all Opportunities |
| HistoryList | **RiSE > Intelligent Query Architect > $/OpportunityManagement/DefaultSystem/Queries** | |
| OpportunityList | **RiSE > Intelligent Query Architect > $/OpportunityManagement/DefaultSystem/Queries** | Projects with overdue tasks<br>Project task due dates |
| OpportunityTypeList | **RiSE > Intelligent Query Architect > $/OpportunityManagement/DefaultSystem/Queries** | |
| RelatedOpportunityList | **RiSE > Intelligent Query Architect > $/OpportunityManagement/DefaultSystem/Queries** | Related opportunities in the primary contact's organization<br>Related opportunities in the Relationships tab in **Customers** |

To edit a query results display

1. Go to **RiSE > Intelligent Query Architect > $/OpportunityManagement/DefaultSystem/Queries**.
2. Select a query.
3. (**Display** tab) From the View drop-down list, select the desired view.
4. Select the check boxes of the properties to be displayed.
5. From the **Order** drop-down list, select the order the properties are to be displayed (left-to-right).

6. (optional) Assign an alias (label name) to any property.
7. Click **Save**.

To create a query results display

1. Go to **RiSE > Intelligent Query Architect > $/OpportunityManagement/DefaultSystem/Queries**.
2. Select **New > Query**.
3. Enter a **Name** and a **Description** for the new query.
4. (**Sources** tab) Select the sources for the query:
   - Select the desired business objects. See the lists below for reference.
   - Define the relationships between the business objects.
5. (**Filters** tab) Define the filtering rules.
6. (**Display** tab) Define the columns to be displayed in the output:
   - From the **View** drop-down list, select the desired view.
   - Select the check boxes of the properties to be displayed.
   - From the **Order** drop-down list, select the order the properties are to be displayed (left-to-right).
7. Save the query in the appropriate folder.

Business Objects for Opportunities

- Opportunity.OpportunityDonor by Opportunity.ID
- Opportunity.OpportunityMember by Opportunity.ID
- Opportunity.OpportunitySales by Opportunity.ID

Primary Joins for Opportunities

- OpportunityType by Opportunity.OpportunityType = OpportunityType.UniformKey
- Contact by Opportunity.ProspectKey = Contact.UniformKey
- TaskItem.UniformKey = Opportunity.ParentUniformKey

Query example: Upcoming tasks display

This example shows how to define a query to display upcoming tasks for a specific Opportunity Owner on their home page.

1. Go to **RiSE > Intelligent Query Architect > $/OpportunityManagement/DefaultSystem/Queries**.
2. Select **New > Query**.
3. Enter a **Name** and a **Description** for the new query.

4. (**Sources** tab) Select the sources for the query:

a. Select the desired business objects:

- TaskItem
- GroupMemberSummary
- User
- OpportunitySales
- Opportunity

b. Define the relationships between the business objects:

- TaskItem.AssignedToKey = GroupMemberSummary.GroupKey
- GroupMemberSummary.UserKey = User.UniformKey
- GroupMemberSummary.GroupKey = OpportunitySales.OwnerGroupKey
- OpportunitySales.OpportunityId = Opportunity.Opportunity.Id

5. (**Filters** tab) Define the filtering rules:

a. Select **Mode: Advanced**.

b. Select **Property: User.Login**.

c. Select **Comparison: Equal**.

d. Enter “Marc Risse” for the **Value**.

e. Add the first filter.

f. Select **Property: TaskItem.Completed On**.

g. Select **Comparison: Empty**.

h. Add the second filter.

i. Select **Property: Opportunity.Status**.

j. Select **Comparison: Not Equal**.

k. Select **Value: Closed**.

l. Add the third filter.

6. (**Display** tab) Define the columns to display in the output:

a. From the **View** drop-down list, select the **All** view.

b. Select the following columns and order:

- Opportunity.Uniform_Key
- Alias: key_Uniformkey (Order 1)
- OpportunitySales.Opportunity Id (Order 2)
- OpportunitySales.Description (Order 3)
- TaskItem.StartDate (Order 4)

- TaskItem.Category (Order 5)
- TaskItem.Due Date (Order 6)
- TaskItem.Subject (Order 7)
- TaskItem.Priority (Order 8)
- OpportunitySales.Quality (Order 9)
- OpportunitySales.WinProbability (Order 10)

7. Click **Save As** and save the query in the Task List folder (**Tasks > Default System > Queries > TaskList**).

Customizing objects for Opportunities

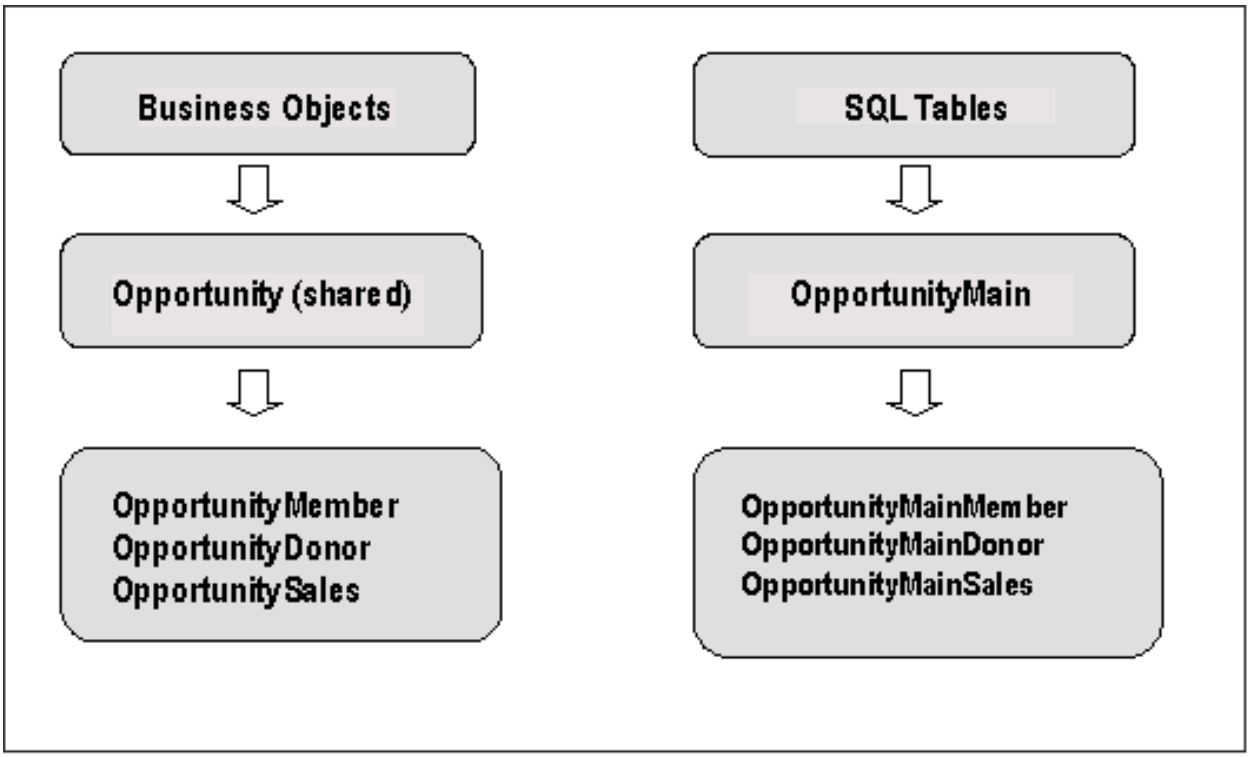
To customize Opportunities, you may need to build new business objects or edit existing ones. These business objects are used to create queries, generate reports, and run processes.

Building new Opportunity Classes

Opportunity Classes combine standard data elements and structure to define data collection and reporting requirements. These are the default Opportunity Classes supplied with Process Manager:

| Opportunity Class | Data to be Collected |
|---|---|
| Common to all | Description, Expiration Date, Status, Created On, Updated On, ID, Current Action Plan Stage, Win Probability |
| Donor | Common plus Decision Date, Distribution, Quality, Response Media, Timing Probability, Actual, Potential |
| Member | Common plus Decision Date, Quality, Response Media, Subscription, Units, Timing Probability, Actual, Potential |
| Sales | Common plus Decision Date, Product, Quality, Response Media, Units, Timing Probability, Actual Sales, Potential Sales |

You can create new Opportunity Classes for the unique requirements of your organization. Each new opportunity class requires a business object and an SQL component:




To create an Opportunity Class

For details on the following procedure, see the Example: Building a Job opportunity class and type.

1. Open Microsoft SQL Server and create a new table, granting appropriate permissions.
2. Open the Business Object Architect.
3. Add the new table to the iMIS .NET framework.
4. Specify the new Opportunity Class properties.
- Build a relationship between the new class and existing classes.
5. Define lookups for the new business object.
6. Edit the Opportunity Type to display the new opportunity class in the Process Manager **Set Up Module**.
7. Build and publish the new business object.

Example: Building a job opportunity class and type

1. First note and verify the following:
- OpportunityKey is a required field.
- Set permissions on the SQL table to select on the iMIS Group.
- Define OpportunityKey as the primary key on the SQL table.

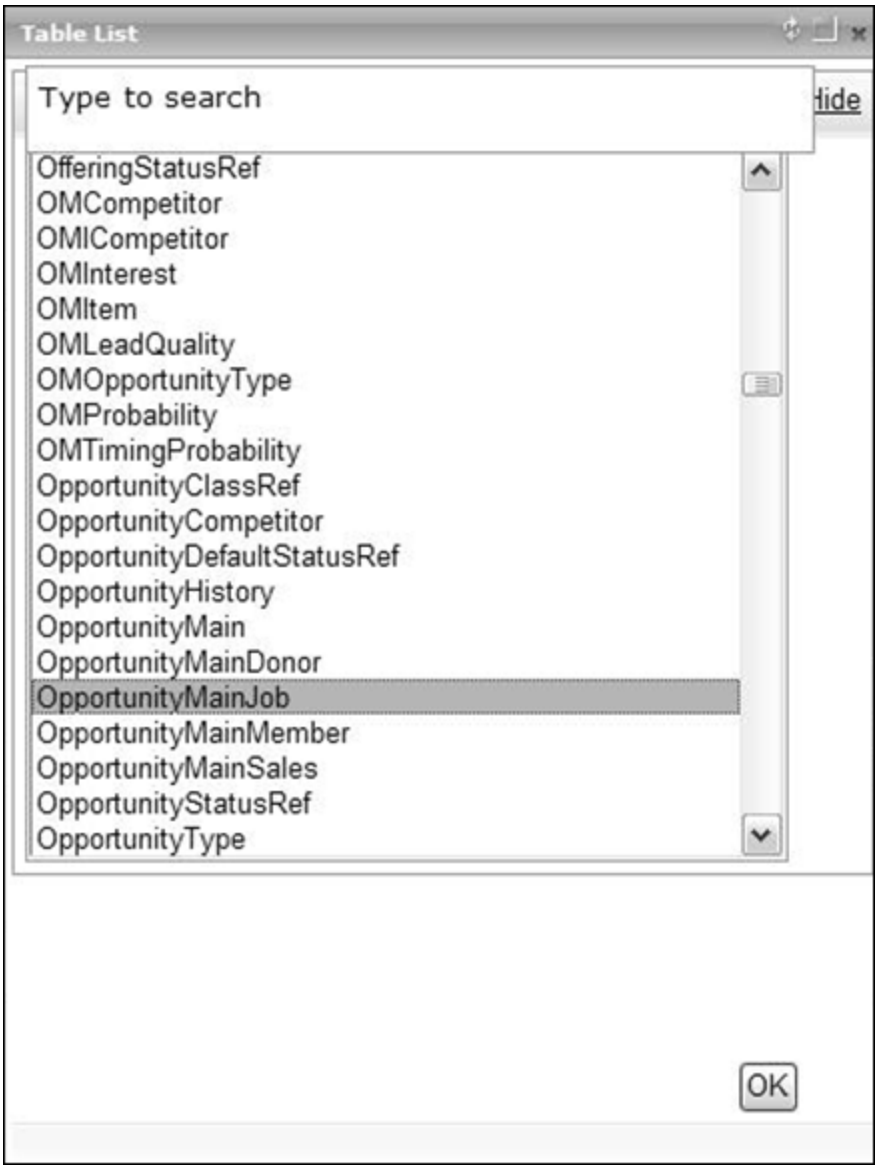
2. In Microsoft SQL Server, create a SQL table called OpportunityMainJob that contains the fields to display in the opportunity:

```
if exists (select * from dbo.sysobjects where id = object_id(N'[dbo].
[OpportunityMainJob]')and OBJECTPROPERTY(id, N'IsUserTable') = 1)
drop table [dbo].[OpportunityMainJob]
GO
CREATE TABLE [dbo].[OpportunityMainJob] (
[OpportunityKey] [uniqueidentifier] NOT NULL ,
[JobNumber] [int] NOT NULL )
```

3. Create a new OpportunityJob business object by going to **RiSE > Business Object Designer**.
4. Select **New > Design Business Definition**.
5. (**Definition** tab) Enter **OpportunityJob** in the **Name** field.
6. Click **Browse**.
7. Select the **Opportunity** business object as a basis for the OpportunityJob business object.
8. Click **OK**.
9. Click **Create Object**. The business object is created and more tabs are available.
10. Make the OpportunityMainJob SQL table part of the .NET framework:

a. (**Database** tab) Click **Add**.

Click to view image




b. Select the new OpportunityMainJob table.

c. Click **OK**.

11. Join the newly created table to the OpportunityMain table:

a. In the Tables field, select **OpportunityMainJob**.

b. In the **Joins** fields, select **OpportunityMain.OpportunityKey** and **OpportunityMainJob.OpportunityKey**.

Click to view image




c. Click **Add**.

12. Create a property for the columns you want to display:

a. In the **Available Columns** field, select the item you want to add as properties, such as **OpportunityMainJob.JobNumber**. You do not have to select OpportunityMainJob.OpportunityKey. It is the required field that already exists in OpportunityMain.

Click to view image




b. Click **Add as Properties**.

13. Click **Save**.

14. Customize the OpportunityJob display properties:

a. (**Properties** tab) Refine the field displays and add the desired look-up values:

- The property name is pulled directly from the SQL table. Click the edit icon (small pencil) to modify any values.
- (optional) Convert field names to user-friendly labels, such as changing JobNumber to Job Number.

b. Click **Save**.

c. Click **Compile**. A progress message is displayed, followed by the message: **Opportunity:Information: Compiled With No Errors**.

d. Click **Close**.

e. Click **Publish**. A progress message is displayed, followed by the message: **OppJob-**

**s:Information: Published With No Errors**.

f. Click **Close**.

15. Modify the OpportunityType business object:

a. Open the OpportunityType business object.

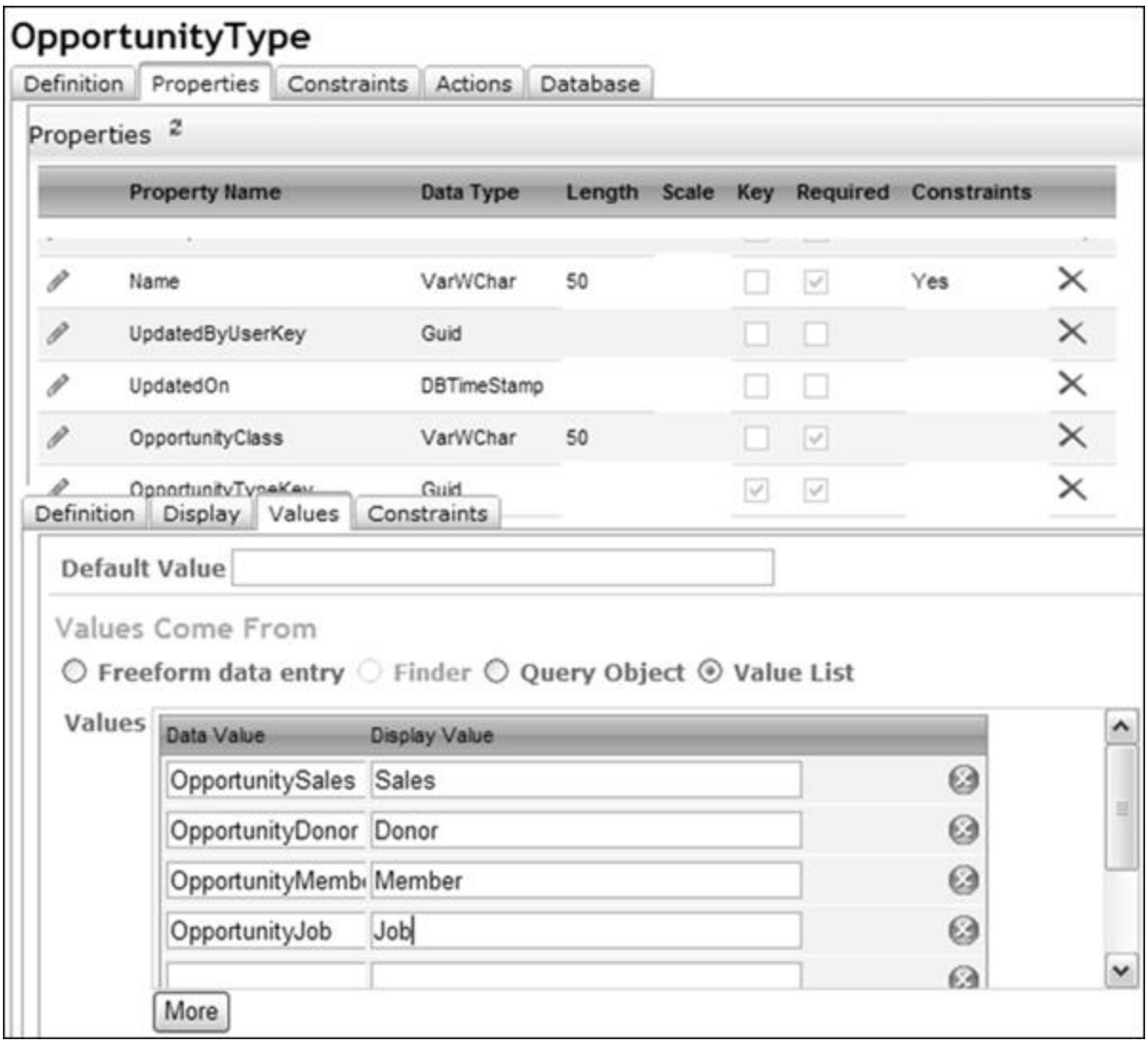
b. (**Properties** tab) From the Properties list, select **OpportunityClass**.

c. (**Values** tab) Select **Value List**.

d. In the **Display Value** field, enter **Job**.

e. In the **Data Value field**, enter **OpportunityJob**.

Click to view image




f. Click **Save**.

g. Click **Close**.
h. Click **Publish**.

16. Create a new Process Type for **OpportunityJob** by going to **Community > Process Manager > Set up processes**.

a. Click **Create Process Type**.
b. Enter a **Name** to define the opportunity type. **Job** is displayed in the **Process Class** list.
c. Select **Job**.
d. Click **Save**.

Modifying task properties

Tasks in Opportunity Management action plans can be modified in the Business Object Designer.

1. Go to **RiSE > Business Object Designer**.
2. Select the task item.
3. Click **Edit**.
4. Edit the item.
5. **Click Save.**

Modifying role-based security settings

The default group roles supplied with Process Manager are Prospect, Opportunity Owner, Contact, and Competitor. You can build additional group roles that better describe responsibilities within your organization and can assign those group roles to the appropriate participants.

To create opportunity group roles

1. Go to **Settings > Security administration > Roles**.
2. Click **Add a Role**.
3. Enter the information for the new role.
4. Click **Save**.

To assign opportunity group roles

1. Go to **Settings > Security administration > Users**.
2. Search for the user record.
3. Select the user. The **User Definition** page displays.
4. In the **Roles** section, in the **User Information** area, click **add role**.

5. Select the desired role and click **OK**. The new role displays in the **Roles** list.

To specify security settings for queries or reports

Each query or report must have a security setting to determine which users can view or edit the query.

1. Go to **RiSE > Intelligent Query Architect**.
2. Select **OpportunityManagement > Default System > Queries**.
3. Select the query or report and click **Edit**. The **Query Summary** page is displayed.
4. Click **Security** in the left nav.
5. From the **Access Mode** list, select the mode.
6. (optional) To change the permissions for a role:

- From the **Access Mode** list, select **Custom**.
- From the **Select a Query** list, select **Roles**.
- Click **Find** to display a list of roles.
- Select a role name to add it to the **Current Access List**.

7. Click **Save**.

## Guided Performance Scorecard

The Guided Performance Scorecard (GPS) lets your organization track its performance by measuring progress in Key Performance Indicators (KPI) and other important indexes. The Guided Performance Scorecard shows your organization's progress in reaching internal goals, as well as measuring against other industry-leading organizations.

The **Goal** and **Industry** values are defined by your organization. Based on these values, the scorecard displays the actual scorecard values for the previous three years to allow your organization to review trends in performance within your organization and against industry standards . The Guided Performance Scorecard provides an easy-to-read layout with colorful icons to indicate the status of **Recruitment**, **Engagement**, and **Growth** performance indicators:

 Actual performance values are 95% or higher of the stated **Goal** or **Industry** values.

 Actual performance values are 90% or higher of the stated **Goal** or **Industry** values.

 Actual performance values are below 90%.

The areas marked with a yellow or red icon should be analyzed for improvement.



## Guided Performance Scorecard

| Key Performance Indicators | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| **Overall Performance Index** | **20.60** | **22.77** | **25.40** | **24.60** | **26.22** |

| Recruitment | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| **Recruitment Acquisition Index** | **33.33** | **37.00** | **41.33** | **39.33** | **42.00** |
| Conversion Rate | 75.00 | 76.00 | 78.00 | 77.00 | 78.00 |
| New Member Acquisition | 20.00 | 30.00 | 40.00 | 35.00 | 40.00 |
| New Visitors to Website | 5.00 | 5.00 | 6.00 | 6.00 | 8.00 |

| Engagement | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| **Engagement Index** | **5.08** | **6.08** | **7.00** | **7.08** | **7.67** |
| Activity per Member | 8.00 | 9.00 | 10.00 | 10.00 | 10.00 |
| Committee Participation per Member | 0.50 | 1.00 | 1.00 | 1.00 | 2.00 |
| Direct Mail per Member | 5.00 | 6.00 | 7.00 | 7.00 | 7.00 |
| Emails per Member | 10.00 | 12.00 | 14.00 | 15.00 | 14.00 |
| Financial Activities per Member | 2.00 | 2.50 | 3.00 | 2.50 | 3.00 |

| Growth | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| **Growth Index** | **23.38** | **25.25** | **27.88** | **27.38** | **29.00** |
| Event Registrations per Member | 0.50 | 1.00 | 1.50 | 1.50 | 2.00 |
| Member Increase | 1.00 | 2.00 | 5.00 | 5.00 | 4.00 |
| Renewal Rate | 82.00 | 83.00 | 85.00 | 85.00 | 90.00 |
| Revenue per Member | 10.00 | 15.00 | 20.00 | 18.00 | 20.00 |

Update Goals | Update Industry Values | Refresh Data

Overall Performance Index

The **Overall Performance Index** is a snapshot of your organization's overall performance of the **Recruitment Acquisition Index**, **Engagement Index** and **Growth Index**. The **Overall Performance Index** is the sum of these numbers divided by **3**.



**Guided Performance Scorecard**

| Key Performance Indicators | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| Overall Performance Index | 20.60 | 22.77 | 25.40 | 24.60 | 26.22 |
| **Recruitment** | **2011** | **2012** | **2013** | **Goal** | **Industry** |
| Recruitment Acquisition Index | 33.33 | 37.00 | 41.33 | 39.33 | 42.00 |
| **Engagement** | **2011** | **2012** | **2013** | **Goal** | **Industry** |
| Engagement Index | 5.08 | 6.08 | 7.00 | 7.08 | 7.67 |
| **Growth** | **2011** | **2012** | **2013** | **Goal** | **Industry** |
| Growth Index | 23.38 | 25.25 | 27.88 | 27.38 | 29.00 |

Recruitment Acquisition Index

Recruitment is vital to any organization. The **Recruitment** key performance indicators enable your organization to track its ability to gather new members and new users (renewal members, new members, and new users) and to see performance trends.



| Recruitment | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| Recruitment Acquisition Index | 33.33 | 37.00 | 41.33 | 39.33 | 42.00 |
| Conversion Rate | 75.00 | 76.00 | 78.00 | 77.00 | 78.00 |
| New Member Acquisition | 20.00 | 30.00 | 40.00 | 35.00 | 40.00 |
| New Visitors to Website | 5.00 | 5.00 | 6.00 | 6.00 | 8.00 |

- **Recruitment Acquisition Index** – The overall **Recruitment** performance index tracks your organization's recruitment performance trends based on **Conversion Rate**, **New Member Acquisition** rate, and the **New Visitors to Website** rate for a specified year.
- **Conversation Rate** – Track how many new members from one year decided to renew their membership in the following year. For example, if there were 40 new members in

your organization in 2012 and 31 of those members renewed in 2013, this indicator is 78%.

- **New Member Acquisition** – Measure the rate of membership growth from year-to-year by comparing the number of new members as a percentage of your overall organization membership. For example, if there were 136 new members during 2013, and there are a total of 340 current members, this indicator is 40%.
- **New Visitors to Website** – Track the number of visitors to your website that created a login. You can use this rate to measure traffic and interest in your websites. This rate is presented as a percentage of the overall organization membership. For example, if there were 18 new user accounts, and there are a total of 300 current members in your organization, this indicator would be 6%.

> **Note:** New user accounts include any website visitors who create a login regardless of whether they become members.

Engagement Index

How your members and users interact with your organization's website can be measured with the **Engagement** key performance indicators. You can review how many financial activities a member might have engaged in for previous years, or even track how many emails were sent per member.



| Engagement | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| **Engagement Index** | 5.08 | 6.08 | 7.00 | 7.08 | 7.67 |
| Activity per Member | 8.00 | 9.00 | 10.00 | 10.00 | 10.00 |
| Committee Participation per Member | 0.50 | 1.00 | 1.00 | 1.00 | 2.00 |
| Direct Mail per Member | 5.00 | 6.00 | 7.00 | 7.00 | 7.00 |
| Emails per Member | 10.00 | 12.00 | 14.00 | 15.00 | 14.00 |
| Financial Activities per Member | 2.00 | 2.50 | 3.00 | 2.50 | 3.00 |

- **Engagement Index** – The overall **Engagement** performance index tracks your organization's engagement performance trends based on **Activity per Member**, **Committee**

**Participation per Member**, **Direct Mail per Member**, **Emails per Member**, and the **Financial Activities per Member** rate for a specified year.

- **Activity per Member** – Track all non-financial activities performed by your members on your website. This allows your organization to review how engaged and interested members are with your organization's websites without performing financial transactions. The average is calculated based on the total number of activities divided by the total number of current members.

  > **Note:** A non-financial activity is any activity that can be performed that is not explicitly defined as a financial activity.

- **Committee Participation per Member** – Measure your members' participation in committee activities (adding members to a committee, searching for current committee members, and so forth). The total number of committee activities for the specified year is divided by the total number of current members in that year.

  > **Note:** This calculation counts each distinct committee position held by a member as a participation activity.

- **Direct Mail per Member** – Measure how active your organization has been in communicating with and reaching out to members using direct mail communications. You can use this measure to track how engaged your organization is with its membership. The total number of letters or other direct mail communications sent to organization members for the specified year is divided by the total number of current members in that year.
- **Emails per Member** – Track the average numbers of emails sent to members to see how active an organization has been in communicating to and engaging members using emails. The total number of emails sent to organization members in a specified year is divided by the total number of current organization members in that year.
- **Financial Activities per Member** – Measure how active members are when deciding to use your organization's websites to perform financial transactions. The total number of financial activities performed by organization members in a specified year is divided by the total number of current organization members in that year.

Financial activities include:

- Continuing education units
- Dues
- Gifts
- Event registrations
- Program item registrations
- Orders
- Donations
- Refunds
- Expositions
- Fundraising
- Sales

Growth Index

Measure your organization's growth with Growth performance indicators. You can track how active organization members were when registering for events, through membership increases, rates of retention and renewal, and the revenue generated per organization member.



| Growth | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| **Growth Index** | 23.38 | 25.25 | 27.88 | 27.38 | 29.00 |
| Event Registrations per Member | 0.50 | 1.00 | 1.50 | 1.50 | 2.00 |
| Member Increase | 1.00 | 2.00 | 5.00 | 5.00 | 4.00 |
| Renewal Rate | 82.00 | 83.00 | 85.00 | 85.00 | 90.00 |
| Revenue per Member | 10.00 | 15.00 | 20.00 | 18.00 | 20.00 |

- **Growth Index** – The overall **Growth** performance index tracks your organization's growth trends based on **Event Registrations per Member**, **Member Increase**, **Renewal Rate**, and **Revenue per Member** rate for a specified year.

- **Event Registrations per Member** – Track the number of events members register for every year, on average. The total number of open event registrations in a specified year is divided by the total number of current organization members in that year.

  > **Note:** This calculation relies on events being open when the calculation is run. If your organization closes events, you must wait until after iMIS has captured these calculations before closing events to ensure accurate values are reported.

- **Member Increase** – Track the growth in membership year-to-year. The total number of organization members in a previous year, for example 2012, is first subtracted from the total number of organization members in the current year, for example 2013, then divided by the total number of organization members in the previous year.
- **Renewal Rate** – Track the growth and retention of members. The number of members that actually renewed during a specified year is divided by the total number of members that were billed for renewal for that year.
- **Revenue per Member** – Track growth in revenue by measuring the revenue per member. The total revenue in a specified year is divided by the total number of current organization members in that year.

## Updating the Guided Performance Scorecard

You can update the **Goals** or **Industry** values your organization has set for any year. You can also refresh the data for any year.

> **Note:** If you add the current year in the **Add new year field**, data will save to the database, but this data will not be displayed in the report. The report is designed to only show data for the three years immediately prior to the current year.

Updating Goals in the Guided Performance Scorecard

Do the following to update the **Goals** in the Guided Performance Scorecard:

1. Click Update Goals. You can update the goals you have already defined for a specific year, or you can define a set of goals for a new year.

   > **Note:** For each measure in the report, enter a decimal value for the goal.

a. Select Choose existing year to select an existing set of goals. The most recent year is selected by default. Current values for the existing year are displayed and can be updated.
b. Select Add new year to enter goals for a different year. All fields are prefilled with the values of the most recent year entered.
2. Click Save to save the updated goals, or click Save & Close to save the updated goals to the database and close the Update Goals window.
3. Refresh the browser to see the updated values in the Guided Performance Scorecard.

Updating Industry values in the Guided Performance Scorecard

Do the following to update the **Industry** values in the Guided Performance Scorecard:

1. Click **Update Industry Values**. You can update the industry values you have already defined for a year, or you can define a set of industry values for a new year.

> **Note:** For each measure in the report, enter a decimal value for the goal.

a. Select **Choose existing year** to select an existing set of industry values. The most recent year is selected by default. Current values for the existing year are displayed and can be updated.
b. Select **Add new year** to enter industry values for a different year. All fields are prefilled with the values of the most recent year entered.
2. Click **Save** to save the updated industry values, or click **Save & Close** to save the updated industry values to the database and close the Update Industry Values window.
3. Refresh the browser to see the updated values in the Guided Performance Scorecard.

Updating Actual data in the Guided Performance Scorecard

Do the following to refresh the data for a specified year in the Guided Performance Scorecard:

1. Click **Refresh Data**. You can choose an existing year to update or refresh.
2. Click **Save & Close** to update the values in the database.
3. Refresh the browser to see the updated values in the Guided Performance Scorecard.

Modifying Guided Performance Scorecard Calculations

iMIS generates values for the Guided Performance Scorecard through calculations in stored procedures. The Guided Performance Scorecard can be modified to match your organization's needs. iMIS uses the following stored procedures to populate the Guided Performance Scorecard.

> **Note:** Modifying stored procedures requires advanced SQL knowledge. It is strongly recommended that you work with an ASI consultant or your AiSP if you intend to modify the following stored procedures.

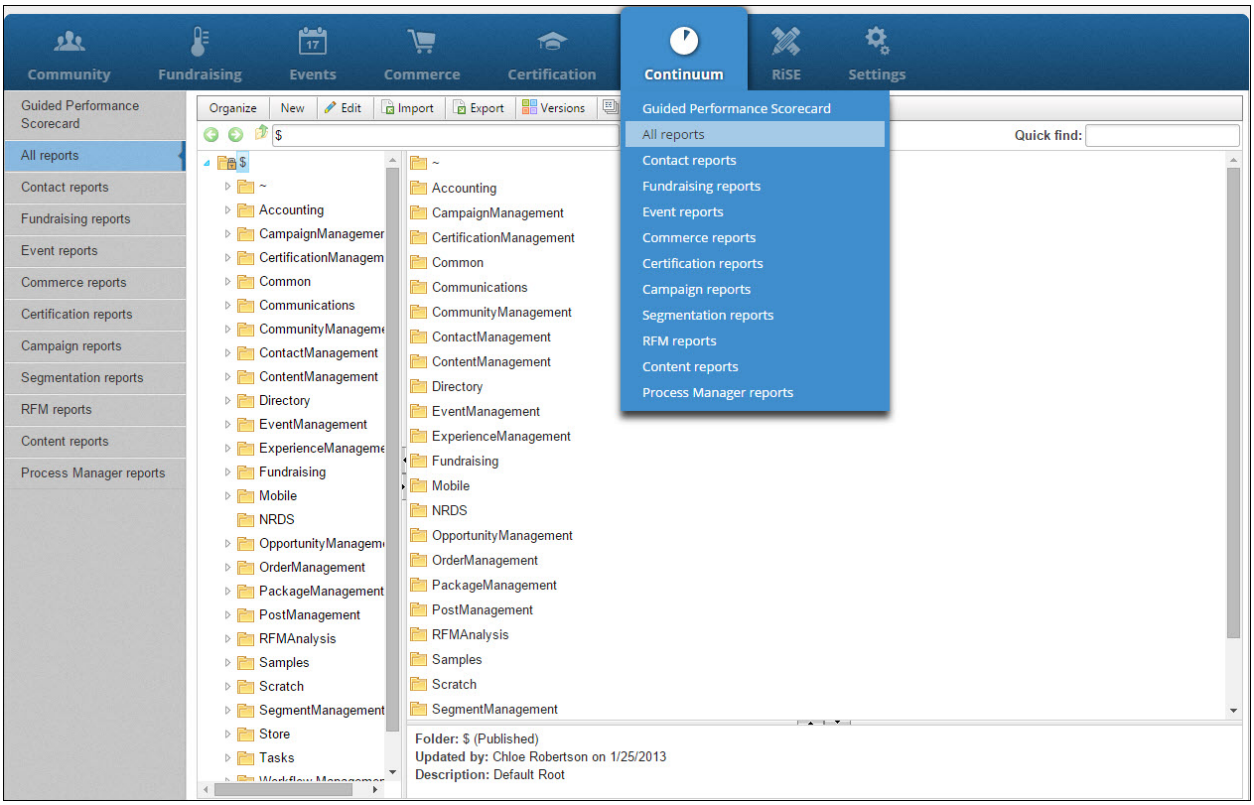
- **AsiGPSAnnualUpdate** – Used to calculate or recalculate the actual totals for a specified year.
- **AsiGPSUpdateValues** – Used to set the **Goal** or **Industry** values for a specified year.
- **AsiGPSAnnualReportPivot** – Used to set the **Green**/**Yellow**/**Red** indicators for each index using a calculation of the **Actual** value as a percentage of the **Goal** or **Industry** target:
- □ **Green** – 95% or higher
- □ **Yellow** – 90% or higher
- □ **Red** – below 90%

### Continuum – Reporting

For an organization's reporting needs, including:

- Commerce
- Contacts
- Fundraising
- Campaigns
- Certification
- RFM
- Segmentation
- Content
- Process Manager
- Guided Performance Scorecard (GPS)

In addition, with Continuum's standard executive dashboard, organizations can monitor the performance of membership, fundraising, events, financials, and other program areas.




The Continuum module uses the Document System to present queries and reports for the user. The Document System is the web-based document management system for your entire iMIS system, providing unified management, versioning, and security of your organizational content assets.

> **Note:** In order to access **Continuum**, staff (**Full User**) must be assigned to the **Reporting** user group. To assign users to groups, go to **Settings > Security Administration > Users**; in the **User Information** section, click **add group**, select the **Reporting** option, and click **OK**.

*See also*

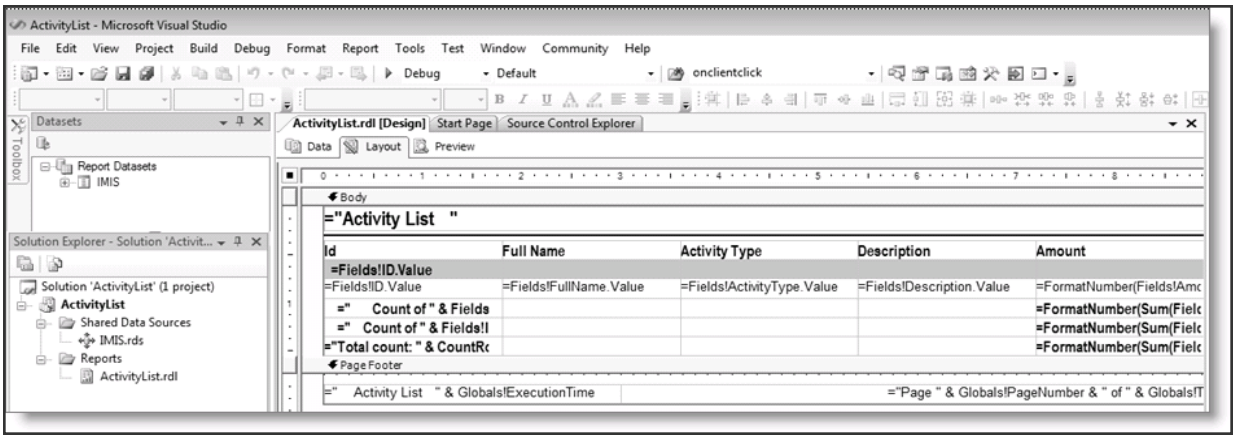
- Quick facts: SSRS reports
- Creating SSRS reports

- Customizing SSRS reports
- Getting report layouts from iMIS
- Setting up SQL Server tools to edit iMIS reports
- Tutorial: Customizing a report template
- Tutorial: Adding your own SSRS report template to iMIS
- Guided Performance Scorecard
- Contact reports
- Fundraising reports
- Event reports
- Commerce reports
- Certification reports
- Campaign reports
- Segmentation reports
- RFM reports
- Content reports
- Process Manager reports
- Sample reports
- Understanding reports and output processes

### Quick facts: SSRS reports

iMIS natively supports SQL Server Reporting Services (SSRS) for both static and dynamic reporting capability with SQL Server databases. Reporting Services includes everything you need to create, distribute, and manage reports.

> **Note:** iMIS supports Crystal Reports, but all new iMIS reports use SSRS.




### What do I need to license or buy?

Nothing! iMIS installs the **SSRS Report Viewer** control for ASP.NET applications that comes with Microsoft Visual Studio. iMIS uses the Report Viewer control, which offers a document map, jump-to-page, zoom, and search. iMIS enables the control's built-in report navigation (pagination), parent report support, and export functionality, including Excel (XLS) and PDF formats.

- Microsoft freely distributes the Report Viewer control
- You can edit the XML-based report format in any text editor
- The visual report designer Business Intelligence Development Studio is free for download

### How do I run reports in iMIS?

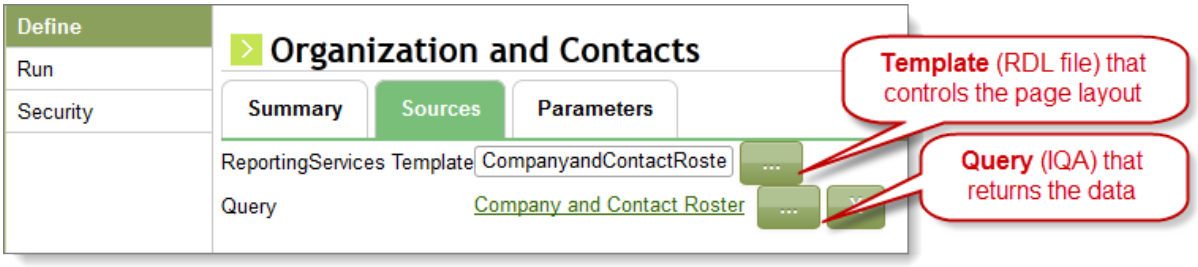
- Generate a default SSRS report on the fly using the **Report** command in IQA.
- Browse to a content record that has an **SSRS Report** content item configured on it.
- Open a navigation item that lists all of the reports in a given folder, and select one.
- Run SSRS reports directly from the **Document System**.

> **Note:** *Where to find samples:* In the **Document System**, go to **$\Samples\ReportingServices** to access example SSRS reports (each of which has a query, a template, and a run-time report).

## Creating SSRS reports

To use SSRS reports natively in iMIS, you work with three associated objects:

1. **Query** – provides the data needed for the report.
2. **Template** (*Reporting Services Template*, the .RDL file) – provides the formatting to display the results, such as a matrix or pie chart. IQA uses a default template that you can generate from any query, either to save in the Document System or to export as an RDL, for editing and reimport.
3. **Report** (the runtime report, an iMIS output process) – binds the query and the template, sets the name, parameters, and security, and makes the report usable from a content item or list of reports.




You can generate a default table-based SSRS report just by using the **Report** command in IQA. These you can export so that you can craft production-quality page layouts or add charting and graphing.

### Can't I just use IQA?

Yes, take advantage of queries and special content items to filter and present iMIS data to your users. See Displaying query results in content items for the growing number of query-based content items available.

But some situations require the full power of Reporting Services. This includes expanded options:

- to display a different type of chart or graph than is available
- to change the chart from listing counts to showing percentages
- to add special header/footer and page layout for production quality
- to output the records in list format, one per page

### How hard is adding a report?

Faster than you can brew a cup of tea, you can publish a new report in iMIS. Suppose that you need a new report, and you want this report added to your site, for easy access.

Without using report editors at all, you can achieve this in a few steps:

1. Create and save your query.
2. Click **Report** to generate the default report.

   **Note:** If you want to adjust any layout defaults, you can do so in **SystemConfig** table settings. See Changing the default layout for SSRS reports.

3. Click **Save Report Definition to iMIS**. Select the name and location you want and click **Save**, which creates the template and report file, already bound to your query.
4. Add access to your new report by adding an SSRS Report content item (**Utility** folder) to an appropriate content record. Enable Excel and PDF exporting as needed.

   **Note:** Most reports display best on content records that use single-column layouts.

### What is the easiest way to change a report?

Suppose that you already added a default report to your site, but you now need to add a pie chart. The essential process is this:

1. Download the RDL template: edit the query, click **Report**, click **Save Report Definition to Workstation**, and **Save** it.
2. Edit it in your report writer.
   - Tutorial: Adding a Pie Chart to a Report
   - How to: Display Data Point Labels Outside a Pie Chart
3. Upload it to iMIS as a new template: in the Document Browser, select **New > Reporting Services Template**, and browse to your RDL file.
4. Update the report runtime to use it: edit the report file, and browse to your new template.

See Getting report layouts from iMIS.

### Using iMIS to generate SSRS reports

You can take advantage of the dynamic reporting feature of IQA to generate many of the reports you need, without using any report editors:

1. In the Staff site, go to **RiSE > Document system**.
2. Browse to your query and choose **Edit**.
3. Click **Report** to generate a report that is dynamically formatted using the settings you control through **SystemConfig** parameters.
4. Under **Options**, select **Save Report Definition to iMIS**.
5. Browse to the save location you specified and edit the outputs as needed:
   - **Reporting Services Template**: , which exports as **[QueryName].rdl**
   - **Reporting Services Report**: , which exports as **[Query Name]** and binds template to query

     For example, you might edit the report's **Parameters** tab to hide the report's parameters at run-time or to preset values (such as to make this report display Texas locations only).
6. Create a content record with an SSRS content item to display your new report: 
   - In **Page Builder > Manage content**, open an appropriate folder to house your new report.
   - From the toolbar, select **New > Website content**.
   - For **add new content**, open the **Utility** folder and select the **SSRS Report** content item.
   - Configure the content item to point to the report ( ) you just created.
7. Deploy the content into the site through a new navigation item, tagging, or other method.

### Creating reports in SQL Server tools

1. Install the free report writing tool that works with your version of SQL Server:
   - Microsoft SQL Server 2005 Express Edition Toolkit, which installs SQL Server Business Intelligence Development Studio (BIDS).
2. Reuse or copy reports created in other editions. When you publish a report created in an earlier version of Reporting Services, it upgrades to the newer format.
3. Create reports using any Reporting Service features: drill-through reports, sub-reports, and parameterized reports that include charts, tables, matrices, and lists.
4. Publish to a report server. To make a published report available to users, use Report Manager to create role assignments that grant access to it.

### Adding custom SSRS reports and subreports

There are two ways that you can add custom SSRS reports to iMIS, depending on your data source.

- If you have designed your own RDL templates outside of iMIS, you can upload them into iMIS templates. This method permits you to use multiple data sets. You can display those reports using the Report Display content item.
- If you have designed your own RDL templates that use an IQA query as a data source, you can upload them into iMIS templates, create reports (which link templates to queries), and display those reports with the SSRS Report content item.

> **Note:** In Reporting Services, subreports are stored as separate RDL files that the main report references. Therefore, you need to upload them into iMIS separately.

Adding an SSRS report to iMIS using an RDL template without an IQA query as a data set

1. Import your template (RDL) into iMIS as a **Reporting Services Template**:
   - In the **Document System**, open the **\Reports\Templates** folder for the target module.
   - From the toolbar, select **New > Reporting Services Template**.
   - Browse to the source RDL file on your file system.
2. Create a content record with a Report Display content item to display your new report:
   - In **Page Builder > Manage content**, open an appropriate folder to house your new report.
   - From the toolbar, select **New > Website content**.
   - For **add new content**, open the **Utility** folder and select the **Report Display** content item.
   - Configure the content item to point to the RDL you just created.
3. Deploy the new content into the site through a navigation item, tagging, or other method.

Adding an SSRS report to iMIS using an RDL template with a single IQA query as a data set

1. Import your template (RDL) into iMIS as a **Reporting Services Template**:
   - In the **Document System**, open the **\Reports\Templates** folder for the target module.
   - From the toolbar, select **New > Reporting Services Template**.
   - Browse to the source RDL file on your file system.
2. Create a report that will bind a query to this template as a **Reporting Services Report**:
   - In the **Document System**, open the **\Reports** folder for the target module.
   - From the toolbar, select **New > Reporting Services Report**. This object is a process engine.
   - On the **Sources** tab, specify which Reporting Services Template and IQA query to use.

- On the **Parameters** tab, choose whether to show the report's parameters at run-time and whether to preset their values (such as to make this report display Texas locations only).

3. Create a content record with an SSRS Report content item to display your new report:
   - In **Page Builder > Manage content**, open an appropriate folder to house your new report.
   - From the toolbar, select **New > Website content**.
   - For a**dd new content**, open the **Utility** folder and select the **SSRS Report** content item.
   - Configure the content item to point to the report ( ) you just created.
4. Deploy the new content into the site through a navigation item, tagging, or other method.

Adding SSRS subreports to iMIS

Creating a report that has subreports is the same process, except that you also import the subreport RDL files into the same folder as the main (parent) RDL file.

1. Import your template (RDL) into iMIS as a **Reporting Services Template**:
2. In the same folder, also create templates for each subreport RDL used by the main report. iMIS can run the subreports specified in the main report only if they are in the same folder.
3. Create a report that will bind a query to this template as a **Reporting Services Report**:
4. Create a content record with an SSRS content item to display the main report:
5. Deploy the content into the site through a new navigation item, tagging, or other method.

**Direct URL calls to run one-off reports**

Content Management also supports direct calls to its reports from your web page code, so that you can create one-off reports you may need. This sample code for a **Print Detail** button on the **Batch details** page shows the process:

1. Call a content item (@/iMIS/Accounting/BatchDetailReport).
2. Pass it a parameter (Batch Number) as a URL parameter.

```
protected void PrintDetailClick(object sender, EventArgs e)
{
Guid documentKey = DocumentSystem.DocumentKeyByPath("@/iMIS/Ac-
counting/BatchDetailReport");

Document d = DocumentController.Document(documentKey);
```

```
Business.ContentManagement.Content content = Business.ContentManagement.Content.GetFromDocument(d);

string url = string.Format(CultureInfo.InvariantCulture, "{0}?&Batch Number={1}", content.GetNavigateUrl(), Batch.BatchNumber);

Response.Redirect(url);
}
```

## Customizing SSRS reports

For a hands-on walkthrough of how to create a customized report template for use in iMIS, see Tutorial: Customizing a report template.

### Changing the default layout for SSRS reports

Your iMIS database stores configuration parameters that control the layout and design of reports generated through Reporting Service (SSRS). These parameters in the **SystemConfig** table control the look and feel of SSRS reports being created system-wide.

For example, if you have international customers, a helpful change might be to configure the reports for A4 format (21.0 x 29.7 cm).

> **Note:** Like Word templates, these configuration settings control new reports only; layout changes do not propagate to existing reports. Therefore, test and perfect your settings before creating new SSRS reports, to minimize the need to repeat your work again later.

#### Changing SSRS layout parameters

1. Use your favorite SQL query tool to access the **SystemConfig** table in iMIS.
2. Change the values as needed.

   > **Note:** For valid color names and samples, search the web for **aspnet named colors**.

3. Restart IIS (or reboot the server) to clear the cache and apply the changes.

### SSRS layout parameters

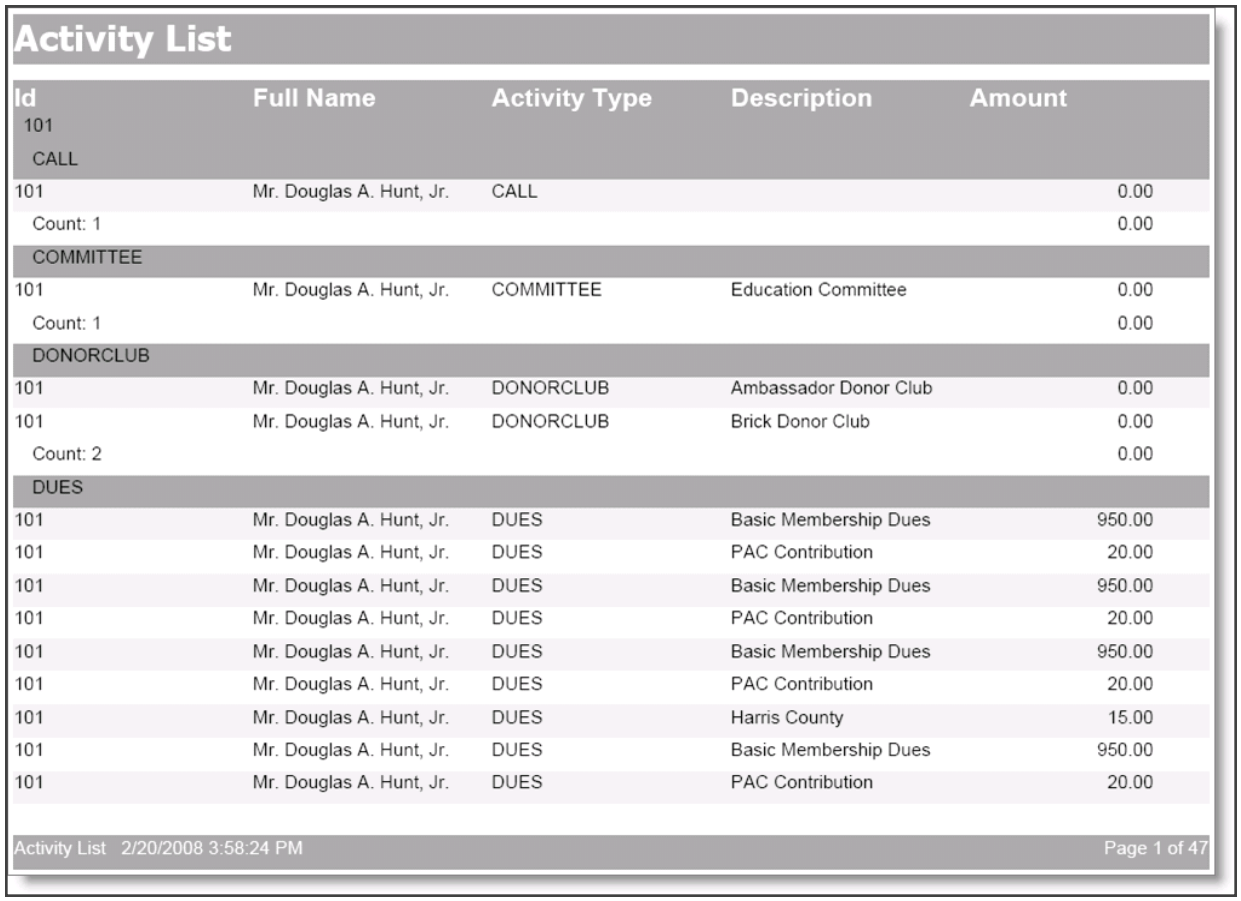
You can generate the table below using this query:

```
select ParameterName, ParameterValue, Description
from SystemConfig where ParameterName like 'SSRS%'
order by ParameterName
```

| SSRS.[ParameterName] | Value | Description |
|---|---|---|
| .BodyReportItemsHeight | 0.2 | Body report items height (units only, no UOM) used when generating SSRS reports |
| .BottomMargin | 0.5 | Bottom margin (units only, no UOM) used when generating SSRS reports |
| .DetailFont | Arial | Detail font for generated SSRS reports |
| .EnableGreenBar | false | Turns on alternating background color in rows of generated SSRS reports |
| .FieldHeaderBackgroundColor | White | Named color used when generating SSRS reports |
| .FieldHeaderForegroundColor | Black | Named color used when generating SSRS reports |
| .FooterHeight | 0.3 | Footer height (units only, no UOM) used when generating SSRS reports |

| | | |
|---|---|---|
| .GreenBarBackgroundColor | LightSteelBlue | Named background color used when EnableGreenBar is true for generated SSRS reports |
| .GroupHeaderBackgroundColor | LightSteelBlue | Named color used when generating SSRS reports |
| .GroupHeaderForegroundColor | Black | Named color used when generating SSRS reports |
| .HeaderFont | Arial Narrow | Header font for generated SSRS reports |
| .HeaderHeight | 0.25 | Header height (units only, no UOM) used when generating SSRS reports |
| .LandscapeTotalWidth | 11 | Total page width (units only, no UOM) for landscape orientation paper used when generating SSRS reports |
| .Language | en-US | Default language used when generating SSRS reports |
| .LeftMargin | 0.5 | Left margin (units only, no UOM) used when generating SSRS reports |
| .PageFooterBackgroundColor | White | Named color used when generating SSRS reports |
| .PageFooterForegroundColor | Black | Named color used when generating SSRS reports |
| .PageHeaderBackgroundColor | White | Named color used when generating SSRS reports |

| | | |
|---|---|---|
| .PageHeaderForegroundColor | Black | Named color used when generating SSRS reports |
| .PortraitTotalWidth | 8.5 | Total page width (units only, no UOM) for portrait orientation paper used when generating SSRS reports |
| .RightMargin | 0.5 | Right margin (units only, no UOM) used when generating SSRS reports |
| .SeparatorLineColor | DarkBlue | Color of the separator line for generated SSRS reports |
| .TableCellWidth | 1.8 | Width for table cells (units only, no UOM) used when generating SSRS reports |
| .TopMargin | 0.5 | Top margin (units only, no UOM) used when generating SSRS reports |
| .UnitOfMeasure | in | Unit of measure used when generating SSRS reports |



**Activity List**

| Id | Full Name | Activity Type | Description | Amount |
|---|---|---|---|---|
| 101 | | | | |
| CALL | | | | |
| 101 | Mr. Douglas A. Hunt, Jr. | CALL | | 0.00 |
| Count: 1 | | | | 0.00 |
| COMMITTEE | | | | |
| 101 | Mr. Douglas A. Hunt, Jr. | COMMITTEE | Education Committee | 0.00 |
| Count: 1 | | | | 0.00 |
| DONORCLUB | | | | |
| 101 | Mr. Douglas A. Hunt, Jr. | DONORCLUB | Ambassador Donor Club | 0.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DONORCLUB | Brick Donor Club | 0.00 |
| Count: 2 | | | | 0.00 |
| DUES | | | | |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | Basic Membership Dues | 950.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | PAC Contribution | 20.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | Basic Membership Dues | 950.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | PAC Contribution | 20.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | Basic Membership Dues | 950.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | PAC Contribution | 20.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | Harris County | 15.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | Basic Membership Dues | 950.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | PAC Contribution | 20.00 |

Activity List 2/20/2008 3:58:24 PM Page 1 of 47

*Example of an Activity List report using the EnableGreenBar feature to highlight alternating lines*

## Getting report layouts from iMIS

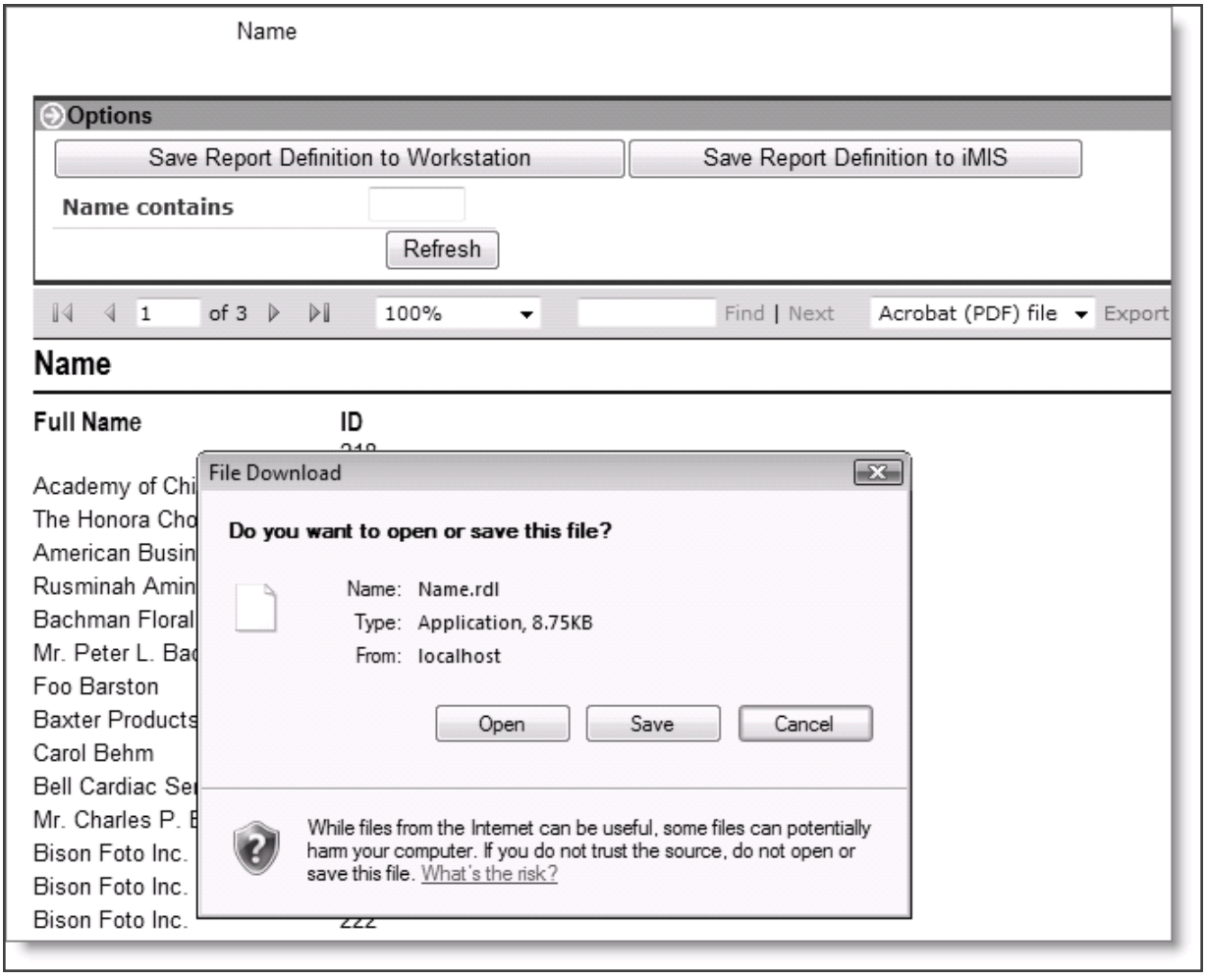
The SSRS template file format is Report Definition Language, which uses an .RDL extension. These are much like Crystal .RPT files, but they are defined in XML. Because they are XML, you can edit .RDL files in any text editor; however, you need free tools available for your version of SQL Server to design the report visually and to preview your report layouts with data.

### Generating RDL files from IQA

1. From the query definition, click **Report**.
   iMIS generates the report in memory; nothing is saved to database or disk yet.
2. If the query results need adjustment, click **Define**, make your changes, and click **Report**.
3. When the results are good, save the report to a permanent format:

- **Save Report Definition to iMIS** copies the report to the Document System, for future availability in iMIS.
- **Save Report Definition to Workstation** copies the report to your file system, for editing outside of iMIS:
  When prompted, choose **Open** to launch the file in the application is associated with the .RDL extension, or choose **Save** to copy the file to the locally.

  Click to view image




### Retrieving an .RDL from the Document System

1. Locate the .RDL template within the Document System.

   **Note:** Be sure you're selecting the template, not the output process!

2. Select the **Run** icon.

3. When prompted, select **Open**.

> **Note:** You can choose **Save** rather than **Open**, but be aware that BIDS will copy the file into its project location when you add it to a project, regardless. However, be sure to re-import your edited version, not the original!

4. Edit the file, and save it to your file system.
5. Import the edited file into the Document System, either as an updated version or as a new template.

### Setting up SQL Server tools to edit iMIS reports

You can customize Reporting Services reports using free SQL Server tools:

- SQL Server Business Intelligence Development Studio (BIDS) installs with the SQL Server 2005 Express Edition Toolkit.

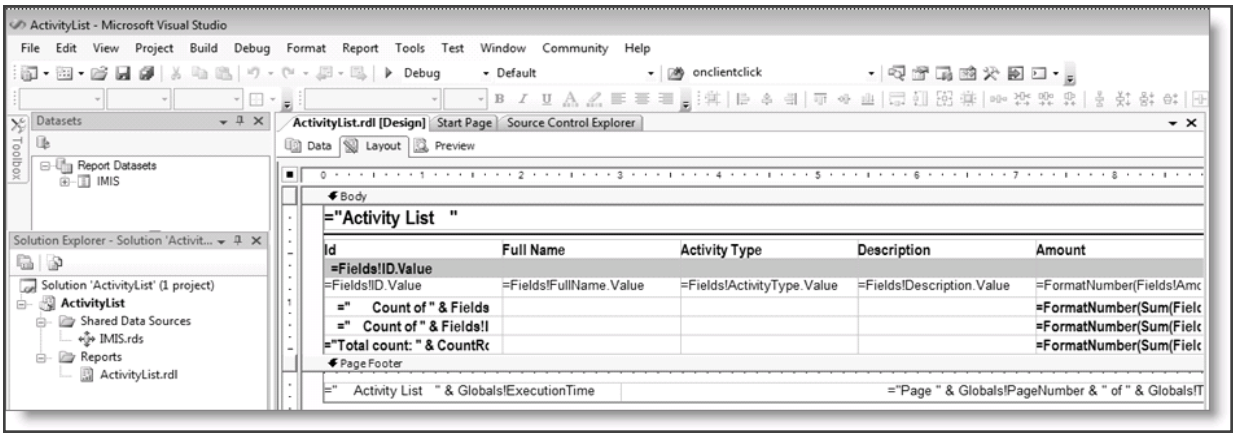
Preparing your environment

1. Uninstall any beta or Community Technology Preview (CTP) versions of SQL Server Management Studio Express.
2. Verify you have administrative rights and ample free space on the machine where you will be working with reports: 600 MB for the toolkit.
3. Install Microsoft .NET Framework 4.5.
4. Install your version of Microsoft SQL Server Express Edition.
5. Install your report tool using the links above.

Working with an .RDL in BIDS

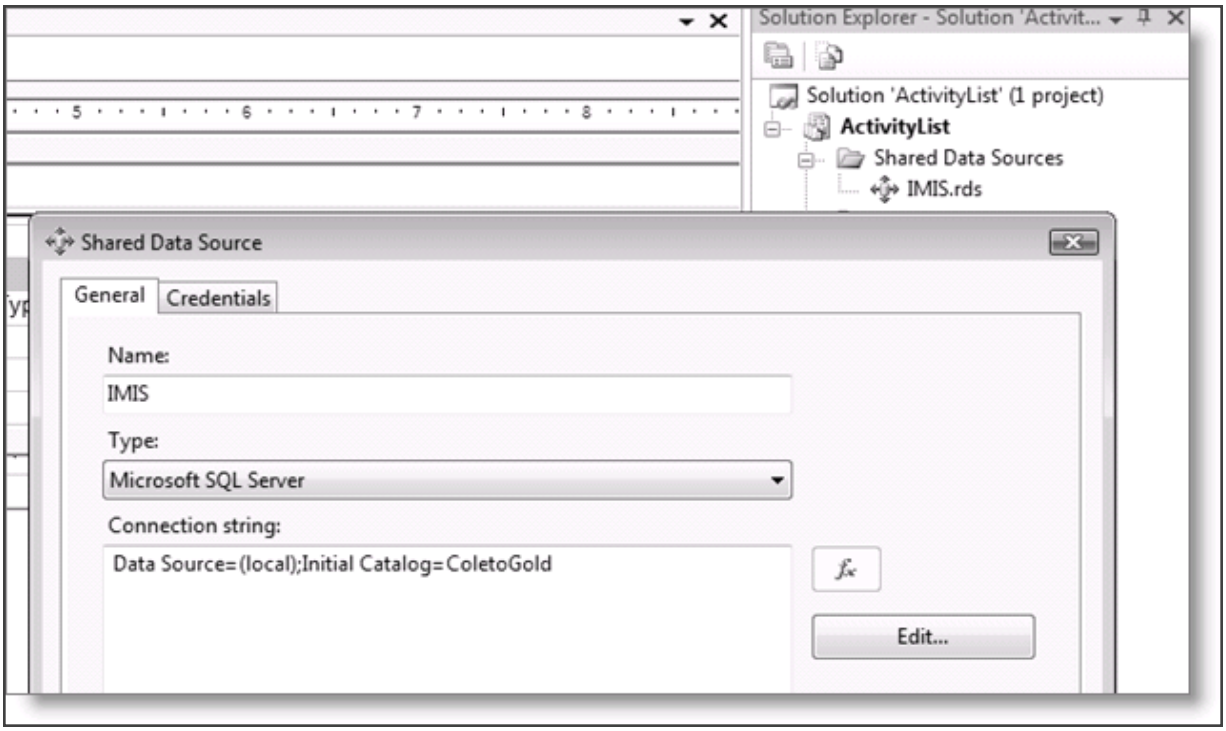
1. Create a new Report Server project (**File > New > Project > Report Server Project**).

Click to view image



2. For the project, create a new **Shared Data Source**.
   - Name it IMIS.
   - Use **Edit...** to specify your server and database.
   - Select the **Credentials** tab to specify your SQL Server login.

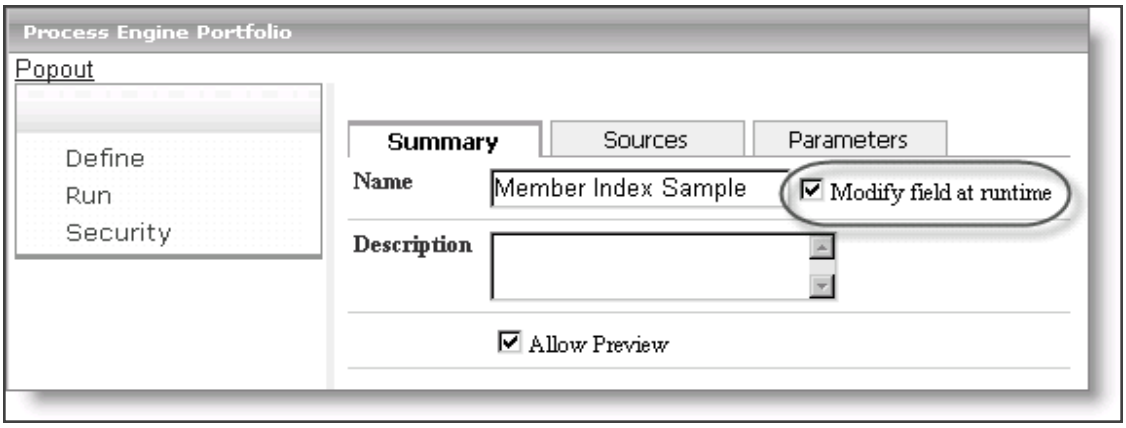
   Click to view image




3. In the Solution Explorer, right-click **Reports, Add / Existing Item**, and browse to the .RDL file downloaded from IQA.
4. Edit the report definition, and select **Save**.
5. Import the report back into the Document System, or use it in a separate SQL Server Reporting Services server environment, as needed.

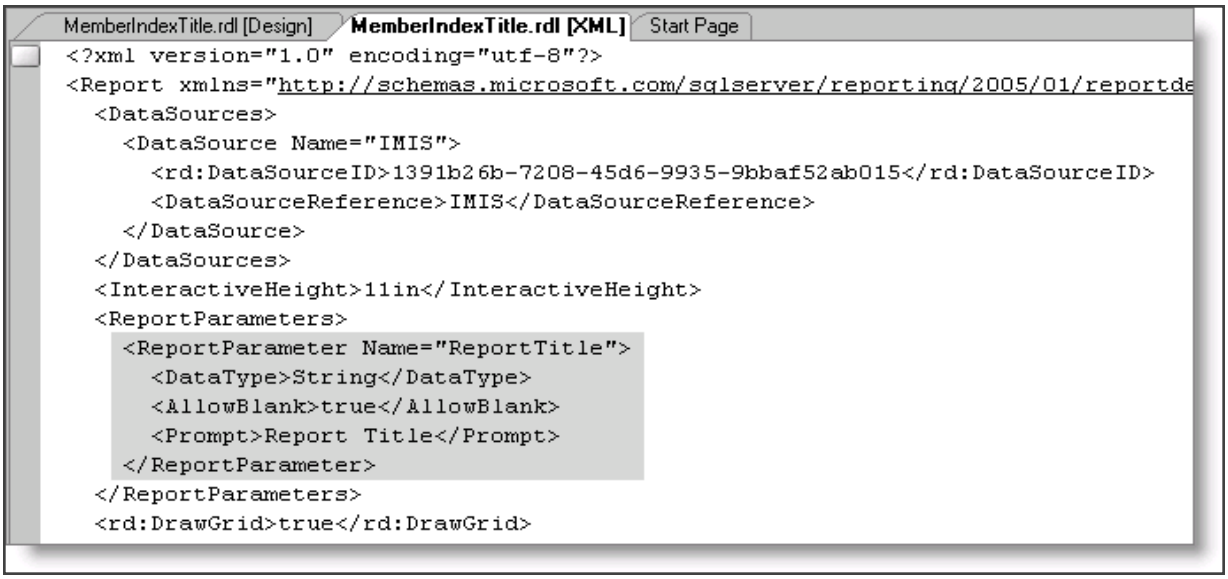
**Making report titles editable at runtime**

IQA adds a parameter to its SRSS reports to let users modify the report title at run-time, so that the title that displays on the report is changed just for that run. To prevent users from changing report titles at run-time, you just disable the **Modify field at runtime** check-box on the reports you save.




*The availability of the **Modify field at runtime** option is controlled by report parameters in the .RDL.*

If you create any RDL files outside of iMIS, you can give them this functionality by adding the **ReportTitle** parameter on the XML tab:




*The "ReportTitle" parameter controls how users can affect the report's title, if at all.*

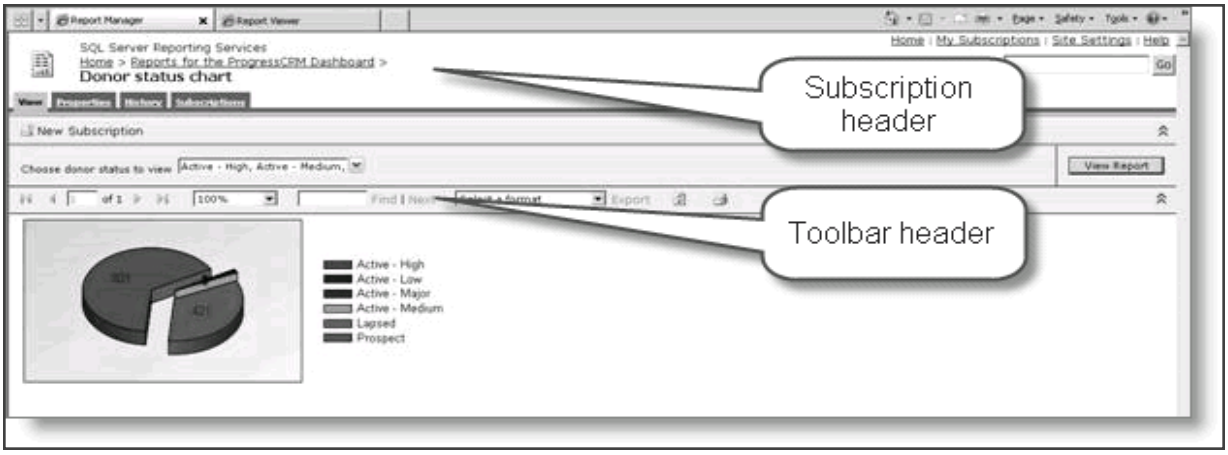
**Code for the ReportTitle parameter**

```
<ReportParameters>
 <ReportParameter Name="ReportTitle">
  <DataType>String</DataType>
  <AllowBlank>true</AllowBlank>
```

```
 <Prompt>Report Title</Prompt>
</ReportParameter></ReportParameters>
```

### Customizing headers in SSRS reports

By default, Reporting Services reports output with two headers. When these headers are not useful or take up too much space in the page design, you can control it by changing the URL through which the report is run.




*SSRS reports include two headers, Subscription and Toolbar.*

Suppressing the Subscription header

When you publish a report, Report Manager generates a URL that includes the Subscription header:

```
http://-
loc-
alhost/Re-
ports/Pages/Re-
port.as-
px?ItemPath-
h=%2fReports+for+the+ProgressCRM+Dashboard%2fDonor+status+chart
```

To run the report without the Subscription header, call a different command, formed like this:

```
http://-
loc-
alhost/re-
portserver-
?%2fRe-
ports+-
for+the+ProgressCRM+Dashboard%2fDonor+status+chart&rs:Command=Render
```

Suppressing the Toolbar header

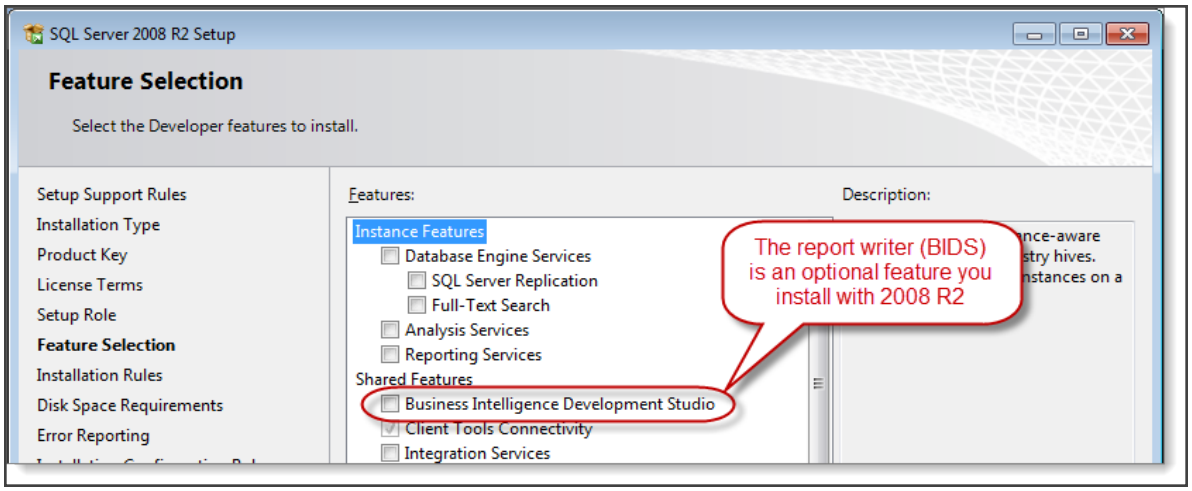
To run the report with the Toolbar header, which includes parameter and export options, add **&rc:Toolbar=false** to the end:

```
http://-
loc-
alhost/re-
portserver-
?%2fRe-
ports+-
for+the+Pro-
gressCRM+Dash-
board%2fDonor+status+chart&rs:Command=Render&rc:Toolbar=false
```

## Tutorial: Customizing a report template

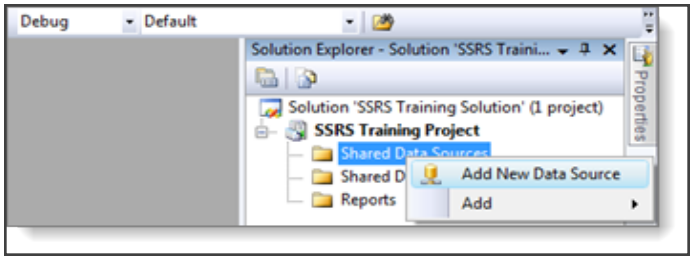
This demonstration walks you through the entire process of creating a reporting project, getting a report template from iMIS, editing it to add a pie chart, and getting the template back into iMIS.

1. If needed, install the Business Intelligence Development Studio (BIDS) feature.
   Click to view image




2. Open your report writer and create a new solution.
   - Open BIDS: go to **All Programs > Microsoft SQL Server 2008 R2 > SQL Server Business Intelligence Development Studio**.
   - Select **File > New > Project**.
   - Select **Report Server Project**.
   - (Project name) **Name - SSRS Training Project**
   - (Default location) **Location - C:\...\Visual Studio 2008\Projects**
   - **Solution Name - SSRS Training Solution**
   - Click **OK**.
3. Add **Shared Data Source** called iMIS.
   - Right-click the **Shared Data Sources** folder inside the SSRS Training Project within the Solution Explorer and select **Add New Data Source**.

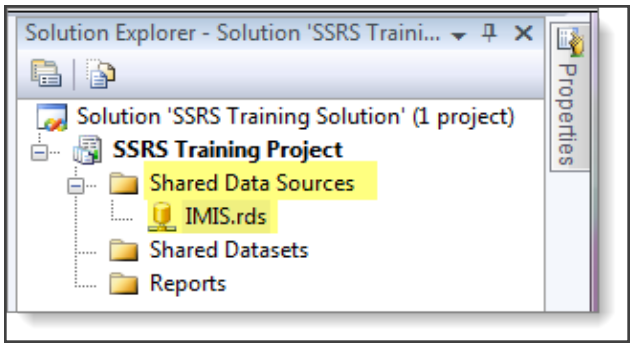
     Click to view image




   - Name the Data Source IMIS so that it will work with the RDL that you will export from iMIS.
   - Click **Edit** and add the connection information for your local database.
   - Select **Test Connection** to verify that it works.

- Note the new connection within the **Shared Data Sources** folder.

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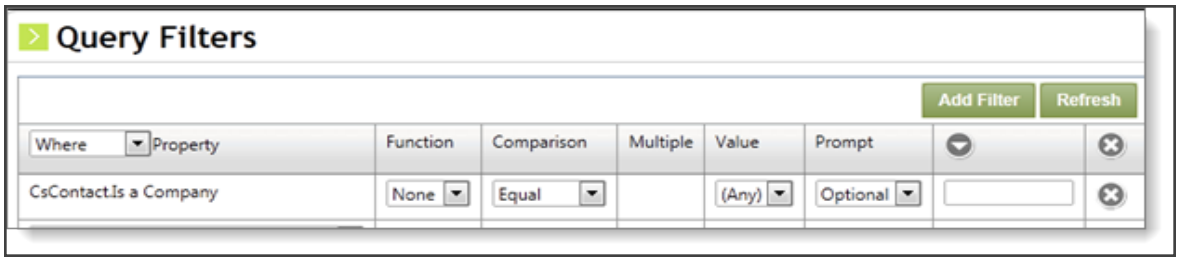

4. Create a data source and default report template (RDL) using IQA.

- Select **RiSE > Intelligent Query Architect**.
- Browse to **$/Samples/ReportingServices**.
- Create a new IQA that grabs the data you need for your report.

  **Sources** - **CsContact** and **CsMemberType** business objects

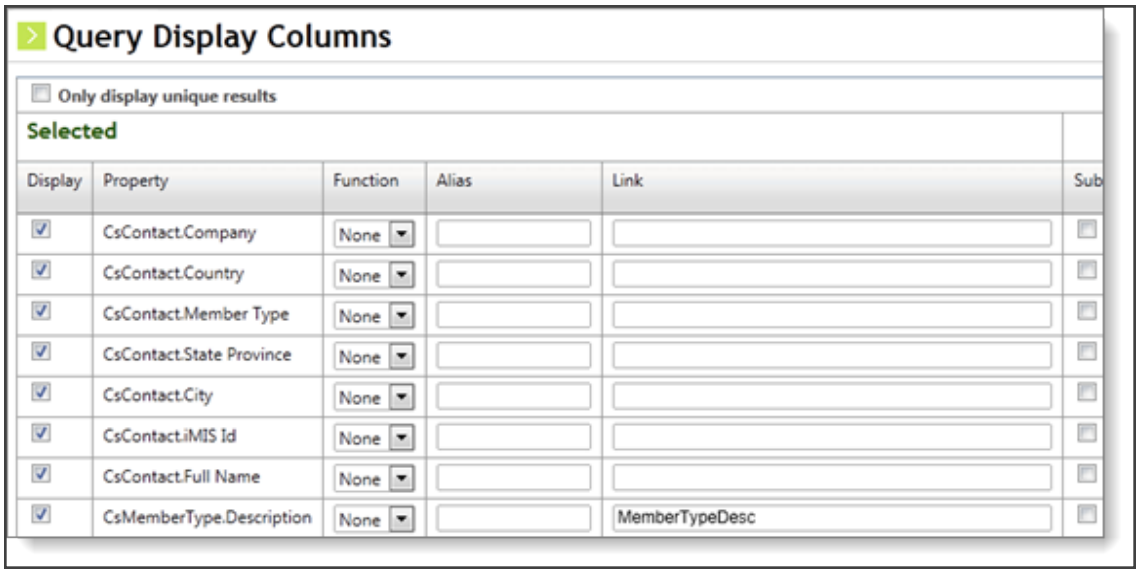
  **Filters** - **CsContact.Is** a Company

  Click to view image

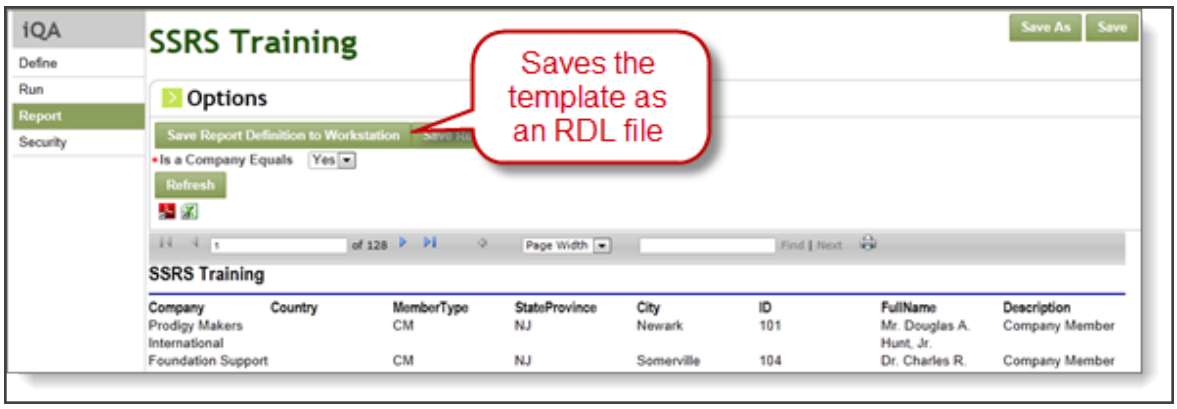



**Display** - Defaults & **CsMemberType.Description**

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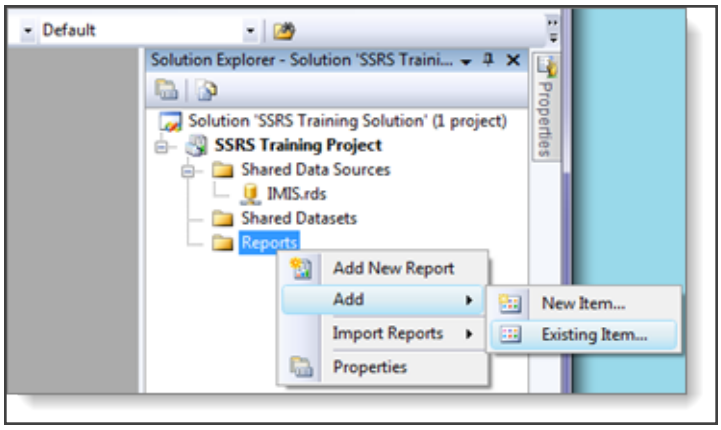



- Go to the **Report** tab and click **Save Report Definition to Workstation** to export the default RDL file to your workstation.
  Click to view image

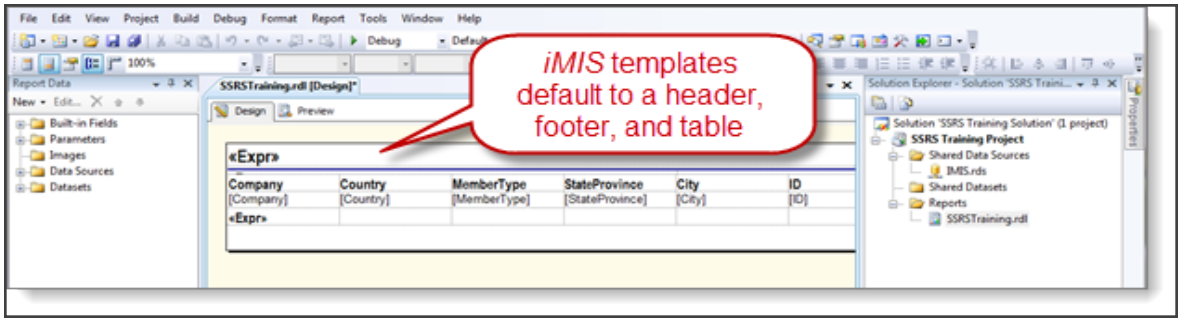



- Save the RDL to your project folder.

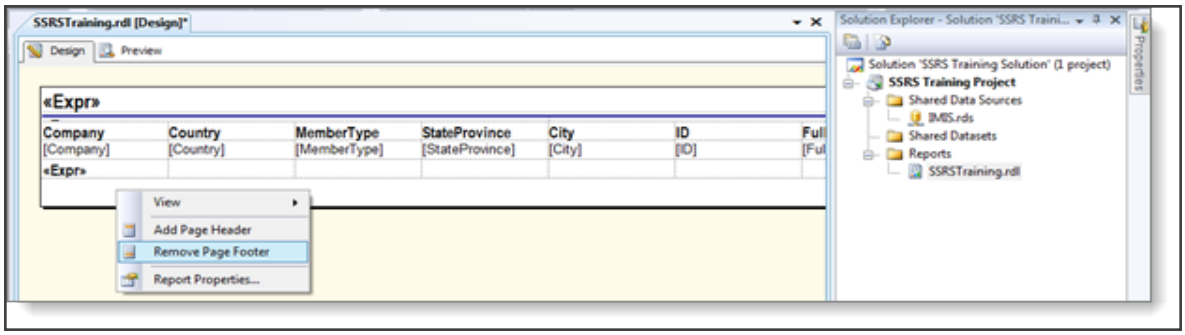
5. Add the exported template to your reporting project.
   - Go back to BIDS and add the RDL to the **Reports** folder within the SSRS Training Project.
   - Right-click **Reports** and select **Add > Existing Item**.
     Click to view image




- Find the RDL you exported from IQA (note that name defaults to the name of the query).
- Double-click on the name of the report to open it for editing. You'll see the default template that IQA uses for all IQA report definitions which includes a header, a table to display the results set, and a footer.
- Click to view image

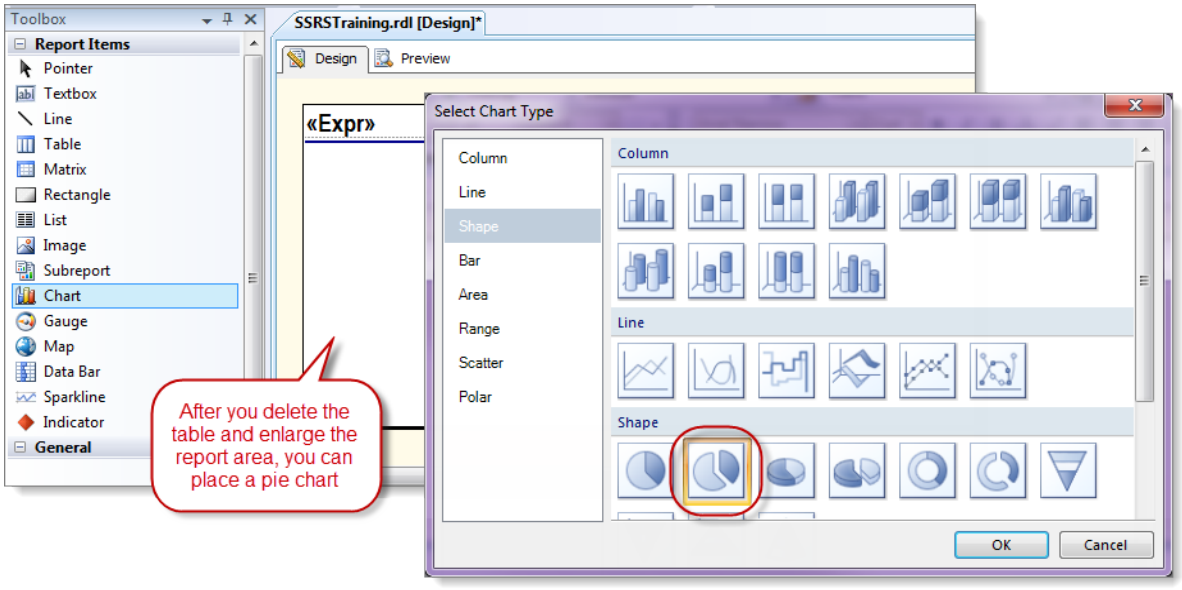



6. Change the report template into a pie chart that shows the percentage of members within a given member type.
- Right-click on the footer and select **Remove Page Footer**.
  Click to view image



- Select the table, click the top left corner, and press the **Delete** button on your key-board.
- Drag the bottom of the report to give yourself more room to add the chart.
- From the toolbox, drag and drop the **Chart** report item onto the body of the report.
- The **Select Chart Type** window opens.
- Select the exploded pie chart and click **OK** and expand the pie chart to fill in the area as needed.

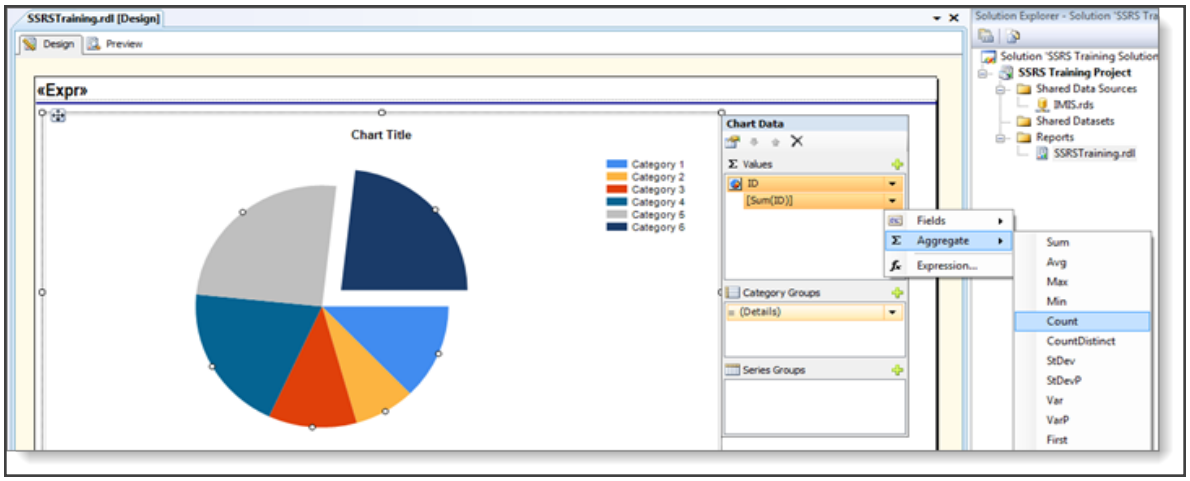
  Click to view image




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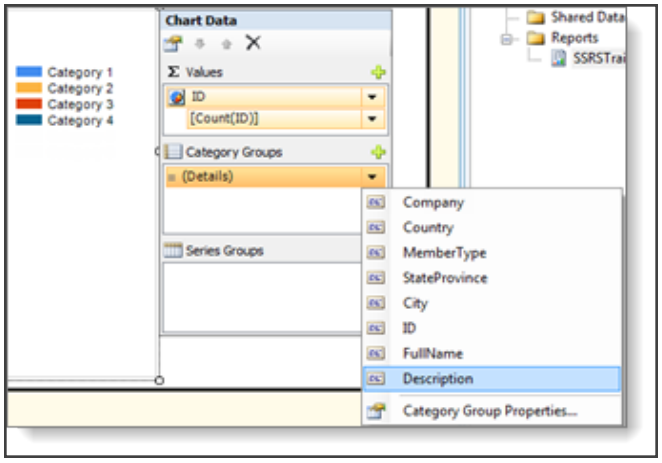
- Right-click on the chart itself to show its properties, which open in the **Chart Data** pane to the right of the chart.
- In the **Value** section, select **ID**.
- Change the **Aggregate** type from **Sum** to **Count**.

  Click to view image



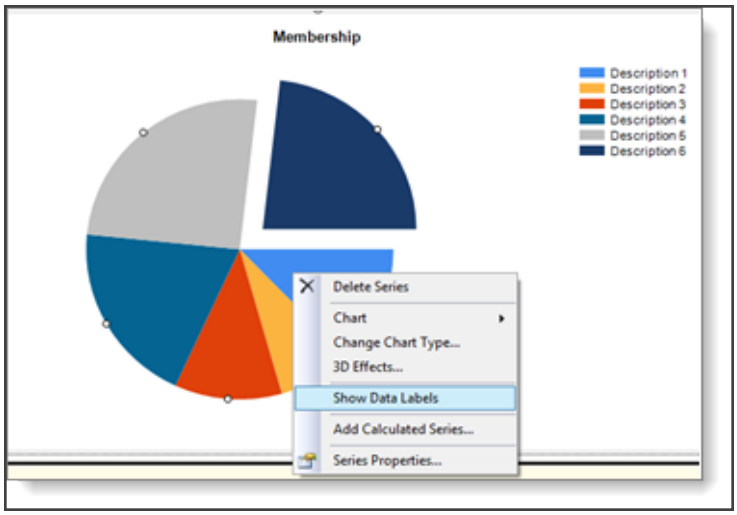

- In the **Category Groups** section, select **Description** (which is the Member Type Description).

  Click to view image



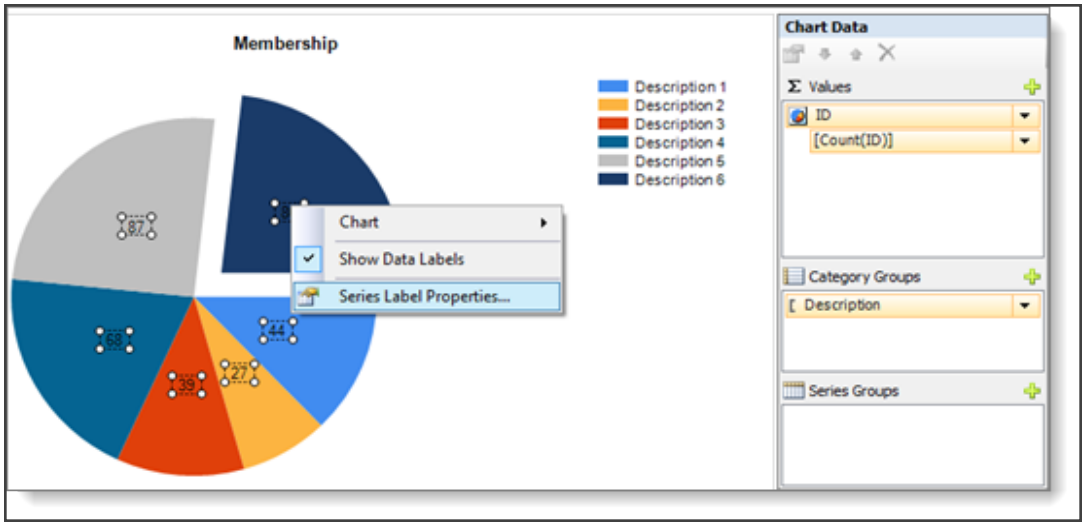

- Change the title of the report by clicking the area that says **Chart Title** and typing.
- Add labels that show the counts-per-member type by right-clicking on the chart and selecting **Show Data Labels**.

  Click to view image




- Click **Preview** to see the new report (there is a default parameter for the report title – click the **View Report** button on the top right to preview the report).
- Change the chart to show percentages instead of counts.
- Right-click on any of the labels in Design mode.
- Select **Series Label Properties**.

  Click to view image



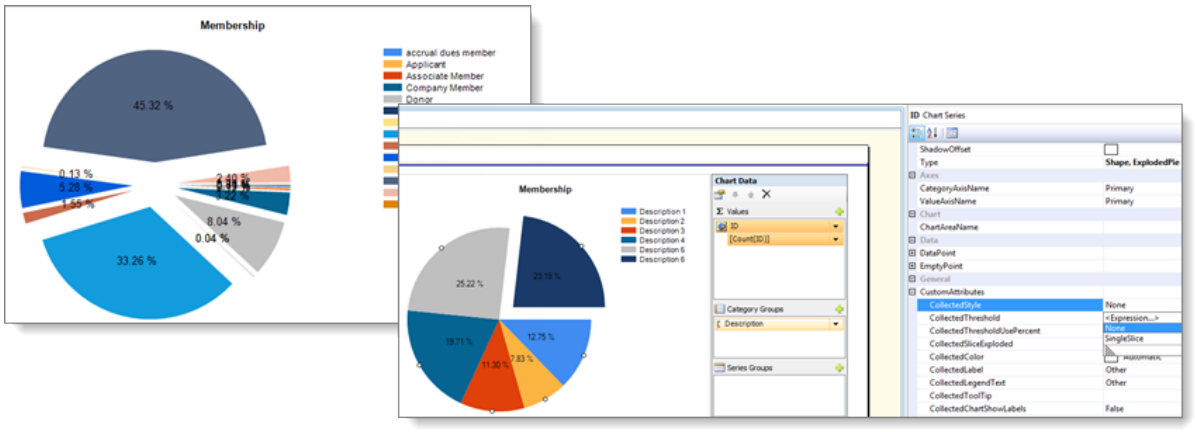

- Add **#PERCENT** to the Label data field so that the labels show the percent instead of the count.
- When prompted, **This property will not have effect unless UseValueAsLabel is set to False. Do you want to set the UseValueAsLabel to False?**, click **Yes**.
- Click **OK**.

7. Combine all member types that have less than 5% into one pie slice called **Other**.
   - Go back to the Design view by clicking the **Design** tab.
   - If you do not see the chart properties, select **View > Properties Window**.
   - Click a pie slice to select the chart area (you will see the **Chart Data** pane at right).
   - On the **Properties** menu to combine all of the less than 5% member types:
   - Find the **General** sub menu, double-click the **CustomAttributes** section, and find and set two properties:

     **CollectedStyle = SingleSlice**

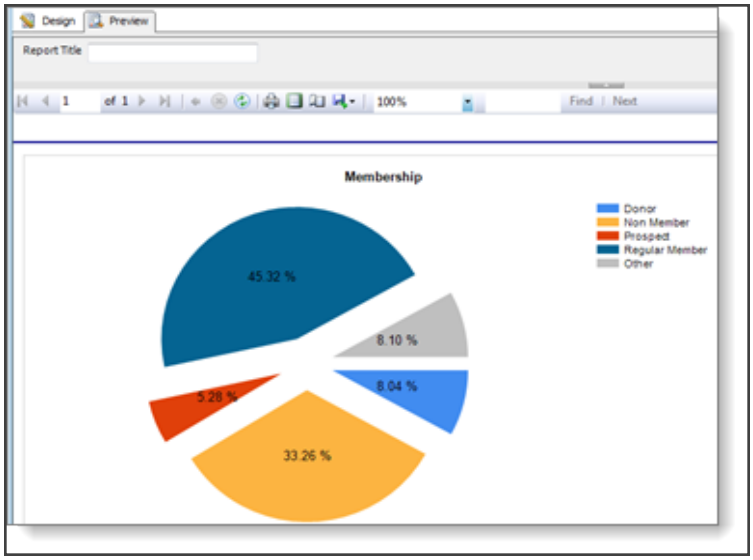
     **CollectedThreshhold = 5**

     Click to view image



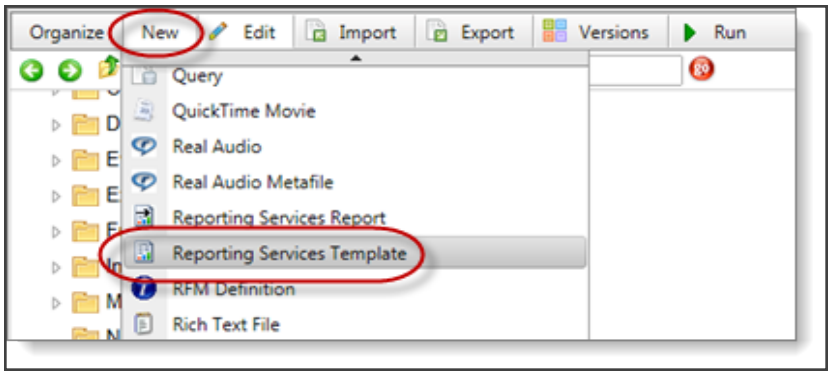

8. Preview, adjust as needed, and **Save**.

   Click to view image



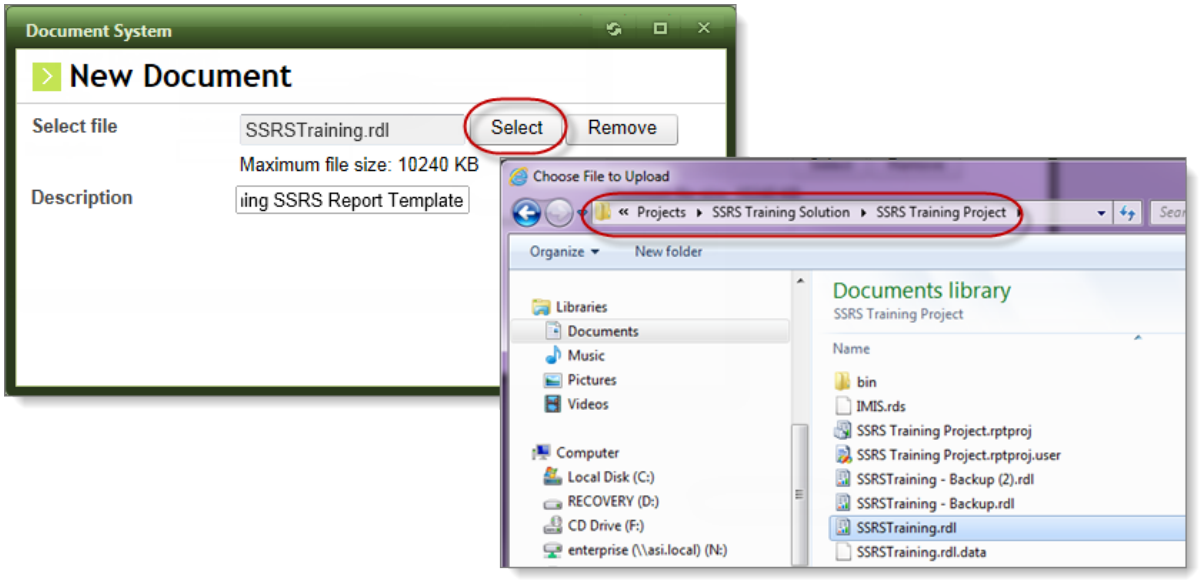
9. Add your template to your report in iMIS.
   - On your Member site, open the Document System: select **Manage > Document System**.
   - Browse to the location of the original template : **$/Samples/ReportingServices**.
   - Bring your template into iMIS as a new object: select **New > Reporting Services Template**.

     Click to view image



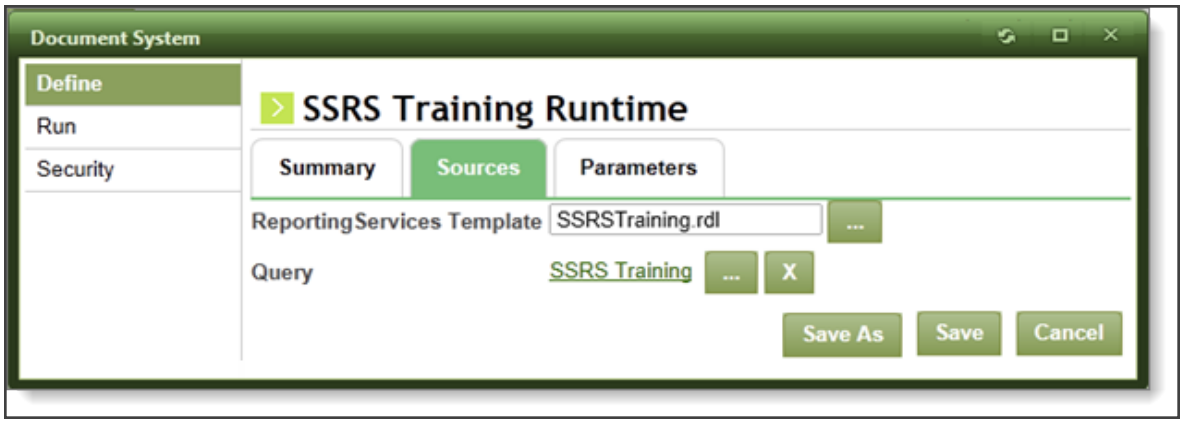

   - Upload your RDL file: Click **Select** and browse to the file that you turned into a chart template: **..\Visual Studio 2008\Projects\SSRS Training Solution\SSRS Training Project**.

     Click to view image



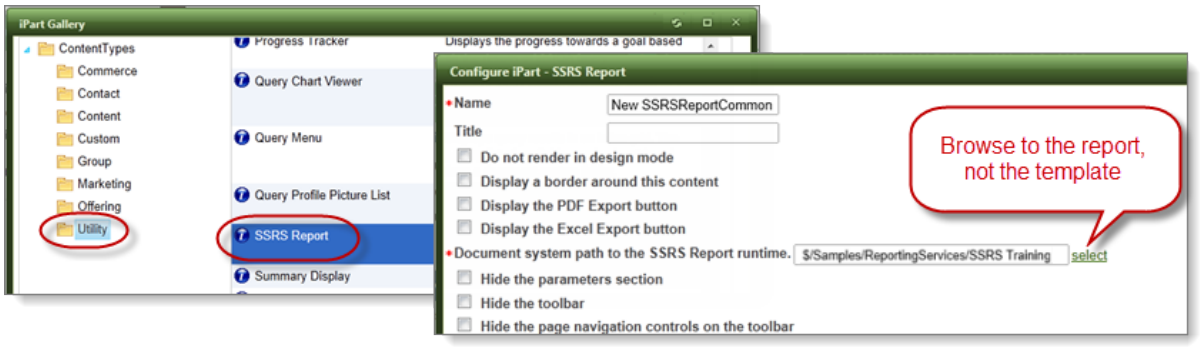

   - Create a report runtime to use your template with your query: select **New > Reporting Services Report**.

- On the **Sources** tab, use the browse buttons to select your template and your query.
  Click to view image



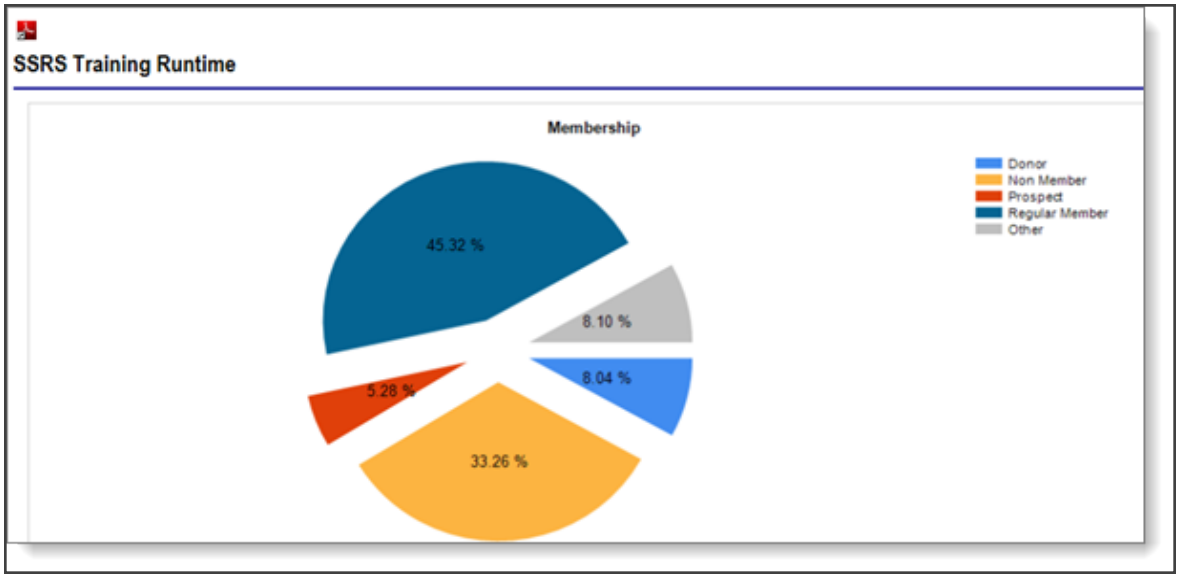

- Click **Run** to preview the report.
- When you **Save** the new report, verify the folder to which you are saving: **$/Samples/ReportingServices**.

10. Publish your report using the SSRS Report content item.
    - Edit a new or existing content record.
    - Select **add content** and select the **SSRS Report**, in the **Utility** gallery.
      Click to view image




- **Select Hide the toolbar, since pagination isn't needed.**
- **Save & Publish**, and view your report.

Click to view image

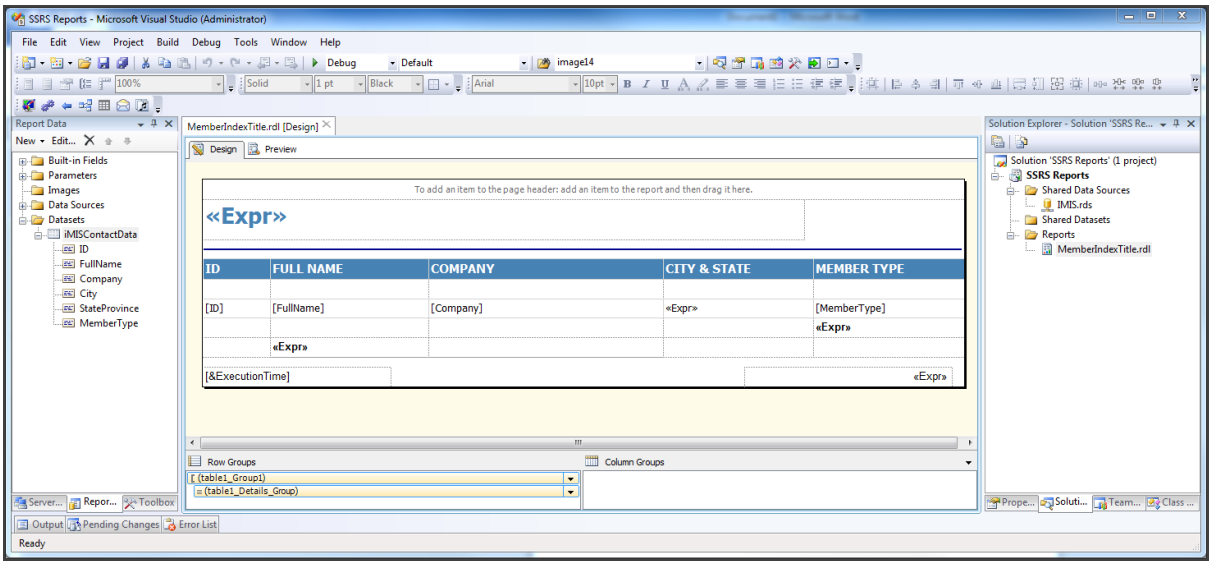



## Tutorial: Adding your own SSRS report template to iMIS

This demonstration walks you through the process of adding a SQL Server Reporting Services (SSRS) report to iMIS.

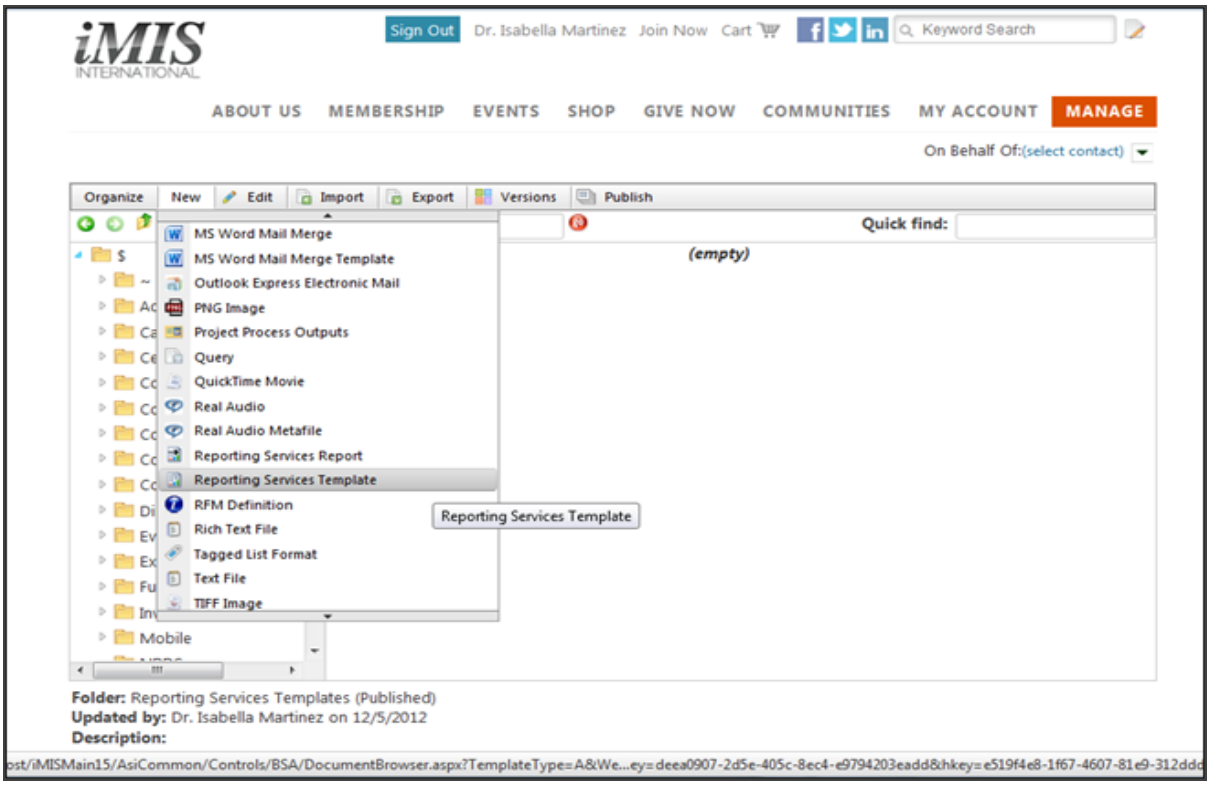
1. Create an SSRS report RDL file. You can use the SQL Server Business Intelligence Studio (BIDS) feature to generate a Data Source, one or more Data Sets, and a report.

   Click to view image

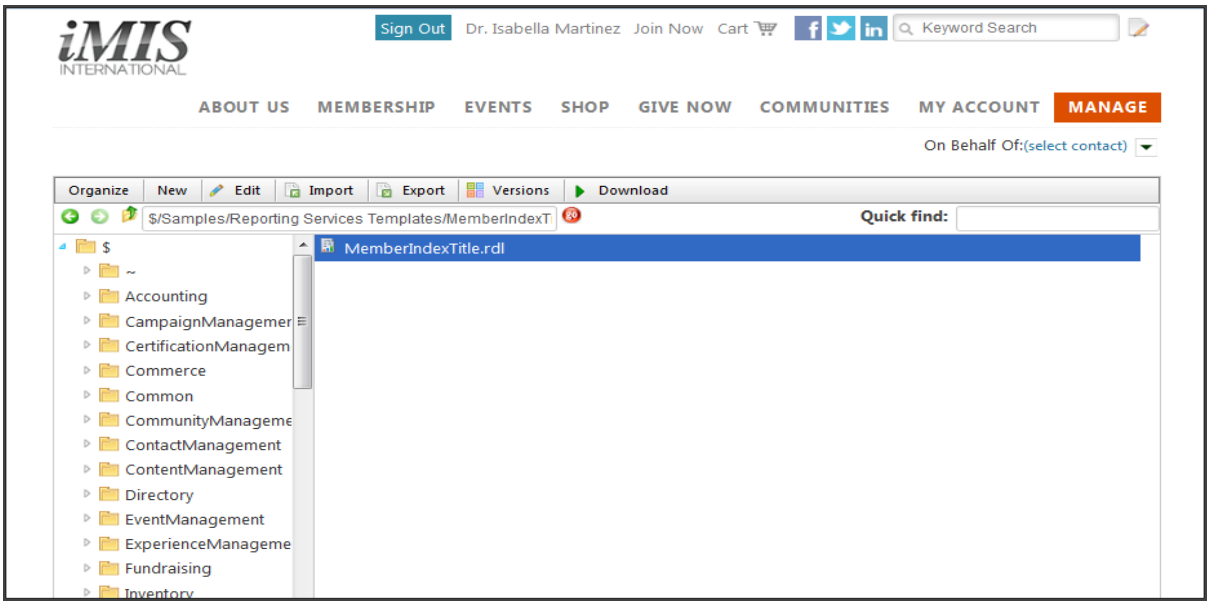



2. Open the iMIS Document System and navigate to the folder where you want to save the report template.

3. Import the SSRS RDL file into iMIS by clicking **New > Reporting Services Template**.
   Click to view image




4. The New Document window opens. Select the RDL file you want to import and click **Upload**.
5. The report displays in the **Reporting Services Templates** folder.
   Click to view image




6. Open the content record you want to add the report to, or create a new content record if needed.
   - Click **Add content** to open the **Content Gallery**, and then open the **Utility** folder.
   - Select the **Report Display** content item.
   - Click **OK**.
7. When the configuration file opens, locate the **Document system path to the SSRS Report template** field and click **Select**. Find the RDL file you added to the Document System.
8. Review the configured content item and click **Save & Publish**.
9. Navigate to the content record where you added the Report Display content item to review your new report.

## Guided Performance Scorecard

The Guided Performance Scorecard (GPS) lets your organization track its performance by measuring progress in Key Performance Indicators (KPI) and other important indexes. The Guided Performance Scorecard shows your organization's progress in reaching internal goals, as well as measuring against other industry-leading organizations.

The **Goal** and **Industry** values are defined by your organization. Based on these values, the scorecard displays the actual scorecard values for the previous three years to allow your organization to review trends in performance within your organization and against

industry standards . The Guided Performance Scorecard provides an easy-to-read layout with colorful icons to indicate the status of **Recruitment**, **Engagement**, and **Growth** performance indicators:

 Actual performance values are 95% or higher of the stated **Goal** or **Industry** values.

 Actual performance values are 90% or higher of the stated **Goal** or **Industry** values.

 Actual performance values are below 90%.

The areas marked with a yellow or red icon should be analyzed for improvement.



## Guided Performance Scorecard

| Key Performance Indicators | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| **Overall Performance Index** | **20.60** | **22.77** | **25.40** | **24.60** | **26.22** |

| Recruitment | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| **Recruitment Acquisition Index** | **33.33** | **37.00** | **41.33** | **39.33** | **42.00** |
| Conversion Rate | 75.00 | 76.00 | 78.00 | 77.00 | 78.00 |
| New Member Acquisition | 20.00 | 30.00 | 40.00 | 35.00 | 40.00 |
| New Visitors to Website | 5.00 | 5.00 | 6.00 | 6.00 | 8.00 |

| Engagement | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| **Engagement Index** | **5.08** | **6.08** | **7.00** | **7.08** | **7.67** |
| Activity per Member | 8.00 | 9.00 | 10.00 | 10.00 | 10.00 |
| Committee Participation per Member | 0.50 | 1.00 | 1.00 | 1.00 | 2.00 |
| Direct Mail per Member | 5.00 | 6.00 | 7.00 | 7.00 | 7.00 |
| Emails per Member | 10.00 | 12.00 | 14.00 | 15.00 | 14.00 |
| Financial Activities per Member | 2.00 | 2.50 | 3.00 | 2.50 | 3.00 |

| Growth | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| **Growth Index** | **23.38** | **25.25** | **27.88** | **27.38** | **29.00** |
| Event Registrations per Member | 0.50 | 1.00 | 1.50 | 1.50 | 2.00 |
| Member Increase | 1.00 | 2.00 | 5.00 | 5.00 | 4.00 |
| Renewal Rate | 82.00 | 83.00 | 85.00 | 85.00 | 90.00 |
| Revenue per Member | 10.00 | 15.00 | 20.00 | 18.00 | 20.00 |

Update Goals | Update Industry Values | Refresh Data

Overall Performance Index

The **Overall Performance Index** is a snapshot of your organization's overall performance of the **Recruitment Acquisition Index**, **Engagement Index** and **Growth Index**. The **Overall Performance Index** is the sum of these numbers divided by **3**.



**Guided Performance Scorecard**

| Key Performance Indicators | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| Overall Performance Index | 20.60 | 22.77 | 25.40 | 24.60 | 26.22 |
| **Recruitment** | **2011** | **2012** | **2013** | **Goal** | **Industry** |
| Recruitment Acquisition Index | 33.33 | 37.00 | 41.33 | 39.33 | 42.00 |
| **Engagement** | **2011** | **2012** | **2013** | **Goal** | **Industry** |
| Engagement Index | 5.08 | 6.08 | 7.00 | 7.08 | 7.67 |
| **Growth** | **2011** | **2012** | **2013** | **Goal** | **Industry** |
| Growth Index | 23.38 | 25.25 | 27.88 | 27.38 | 29.00 |

Recruitment Acquisition Index

Recruitment is vital to any organization. The **Recruitment** key performance indicators enable your organization to track its ability to gather new members and new users (renewal members, new members, and new users) and to see performance trends.



| Recruitment | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| Recruitment Acquisition Index | 33.33 | 37.00 | 41.33 | 39.33 | 42.00 |
| Conversion Rate | 75.00 | 76.00 | 78.00 | 77.00 | 78.00 |
| New Member Acquisition | 20.00 | 30.00 | 40.00 | 35.00 | 40.00 |
| New Visitors to Website | 5.00 | 5.00 | 6.00 | 6.00 | 8.00 |

- **Recruitment Acquisition Index** – The overall **Recruitment** performance index tracks your organization's recruitment performance trends based on **Conversion Rate**, **New Member Acquisition** rate, and the **New Visitors to Website** rate for a specified year.
- **Conversation Rate** – Track how many new members from one year decided to renew their membership in the following year. For example, if there were 40 new members in

your organization in 2012 and 31 of those members renewed in 2013, this indicator is 78%.

- **New Member Acquisition** – Measure the rate of membership growth from year-to-year by comparing the number of new members as a percentage of your overall organization membership. For example, if there were 136 new members during 2013, and there are a total of 340 current members, this indicator is 40%.
- **New Visitors to Website** – Track the number of visitors to your website that created a login. You can use this rate to measure traffic and interest in your websites. This rate is presented as a percentage of the overall organization membership. For example, if there were 18 new user accounts, and there are a total of 300 current members in your organization, this indicator would be 6%.

> **Note:** New user accounts include any website visitors who create a login regardless of whether they become members.

Engagement Index

How your members and users interact with your organization's website can be measured with the **Engagement** key performance indicators. You can review how many financial activities a member might have engaged in for previous years, or even track how many emails were sent per member.



| Engagement | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| **Engagement Index** | 5.08 | 6.08 | 7.00 | 7.08 | 7.67 |
| Activity per Member | 8.00 | 9.00 | 10.00 | 10.00 | 10.00 |
| Committee Participation per Member | 0.50 | 1.00 | 1.00 | 1.00 | 2.00 |
| Direct Mail per Member | 5.00 | 6.00 | 7.00 | 7.00 | 7.00 |
| Emails per Member | 10.00 | 12.00 | 14.00 | 15.00 | 14.00 |
| Financial Activities per Member | 2.00 | 2.50 | 3.00 | 2.50 | 3.00 |

- **Engagement Index** – The overall **Engagement** performance index tracks your organization's engagement performance trends based on **Activity per Member**, **Committee**

**Participation per Member**, **Direct Mail per Member**, **Emails per Member**, and the **Financial Activities per Member** rate for a specified year.

- **Activity per Member** – Track all non-financial activities performed by your members on your website. This allows your organization to review how engaged and interested members are with your organization's websites without performing financial transactions. The average is calculated based on the total number of activities divided by the total number of current members.

  > **Note:** A non-financial activity is any activity that can be performed that is not explicitly defined as a financial activity.

- **Committee Participation per Member** – Measure your members' participation in committee activities (adding members to a committee, searching for current committee members, and so forth). The total number of committee activities for the specified year is divided by the total number of current members in that year.

  > **Note:** This calculation counts each distinct committee position held by a member as a participation activity.

- **Direct Mail per Member** – Measure how active your organization has been in communicating with and reaching out to members using direct mail communications. You can use this measure to track how engaged your organization is with its membership. The total number of letters or other direct mail communications sent to organization members for the specified year is divided by the total number of current members in that year.
- **Emails per Member** – Track the average numbers of emails sent to members to see how active an organization has been in communicating to and engaging members using emails. The total number of emails sent to organization members in a specified year is divided by the total number of current organization members in that year.
- **Financial Activities per Member** – Measure how active members are when deciding to use your organization's websites to perform financial transactions. The total number of financial activities performed by organization members in a specified year is divided by the total number of current organization members in that year.

Financial activities include:

- Continuing education units
- Dues
- Gifts
- Event registrations
- Program item registrations
- Orders
- Donations
- Refunds
- Expositions
- Fundraising
- Sales

Growth Index

Measure your organization's growth with Growth performance indicators. You can track how active organization members were when registering for events, through membership increases, rates of retention and renewal, and the revenue generated per organization member.



| Growth | 2011 | 2012 | 2013 | Goal | Industry |
|---|---|---|---|---|---|
| **Growth Index** | 23.38 | 25.25 | 27.88 | 27.38 | 29.00 |
| Event Registrations per Member | 0.50 | 1.00 | 1.50 | 1.50 | 2.00 |
| Member Increase | 1.00 | 2.00 | 5.00 | 5.00 | 4.00 |
| Renewal Rate | 82.00 | 83.00 | 85.00 | 85.00 | 90.00 |
| Revenue per Member | 10.00 | 15.00 | 20.00 | 18.00 | 20.00 |

- **Growth Index** – The overall **Growth** performance index tracks your organization's growth trends based on **Event Registrations per Member**, **Member Increase**, **Renewal Rate**, and **Revenue per Member** rate for a specified year.

- **Event Registrations per Member** – Track the number of events members register for every year, on average. The total number of open event registrations in a specified year is divided by the total number of current organization members in that year.

  > **Note:** This calculation relies on events being open when the calculation is run. If your organization closes events, you must wait until after iMIS has captured these calculations before closing events to ensure accurate values are reported.

- **Member Increase** – Track the growth in membership year-to-year. The total number of organization members in a previous year, for example 2012, is first subtracted from the total number of organization members in the current year, for example 2013, then divided by the total number of organization members in the previous year.
- **Renewal Rate** – Track the growth and retention of members. The number of members that actually renewed during a specified year is divided by the total number of members that were billed for renewal for that year.
- **Revenue per Member** – Track growth in revenue by measuring the revenue per member. The total revenue in a specified year is divided by the total number of current organization members in that year.

### Updating the Guided Performance Scorecard

You can update the **Goals** or **Industry** values your organization has set for any year. You can also refresh the data for any year.

> **Note:** If you add the current year in the **Add new year field**, data will save to the database, but this data will not be displayed in the report. The report is designed to only show data for the three years immediately prior to the current year.

Updating Goals in the Guided Performance Scorecard

Do the following to update the **Goals** in the Guided Performance Scorecard:

1. Click Update Goals. You can update the goals you have already defined for a specific year, or you can define a set of goals for a new year.

   > **Note:** For each measure in the report, enter a decimal value for the goal.

a. Select Choose existing year to select an existing set of goals. The most recent year is selected by default. Current values for the existing year are displayed and can be updated.
b. Select Add new year to enter goals for a different year. All fields are prefilled with the values of the most recent year entered.
2. Click Save to save the updated goals, or click Save & Close to save the updated goals to the database and close the Update Goals window.
3. Refresh the browser to see the updated values in the Guided Performance Scorecard.

Updating Industry values in the Guided Performance Scorecard

Do the following to update the **Industry** values in the Guided Performance Scorecard:

1. Click **Update Industry Values**. You can update the industry values you have already defined for a year, or you can define a set of industry values for a new year.

> **Note:** For each measure in the report, enter a decimal value for the goal.

a. Select **Choose existing year** to select an existing set of industry values. The most recent year is selected by default. Current values for the existing year are displayed and can be updated.
b. Select **Add new year** to enter industry values for a different year. All fields are prefilled with the values of the most recent year entered.
2. Click **Save** to save the updated industry values, or click **Save & Close** to save the updated industry values to the database and close the Update Industry Values window.
3. Refresh the browser to see the updated values in the Guided Performance Scorecard.

Updating Actual data in the Guided Performance Scorecard

Do the following to refresh the data for a specified year in the Guided Performance Scorecard:

1. Click **Refresh Data**. You can choose an existing year to update or refresh.
2. Click **Save & Close** to update the values in the database.
3. Refresh the browser to see the updated values in the Guided Performance Scorecard.

Modifying Guided Performance Scorecard Calculations

iMIS generates values for the Guided Performance Scorecard through calculations in stored procedures. The Guided Performance Scorecard can be modified to match your organization's needs. iMIS uses the following stored procedures to populate the Guided Performance Scorecard.

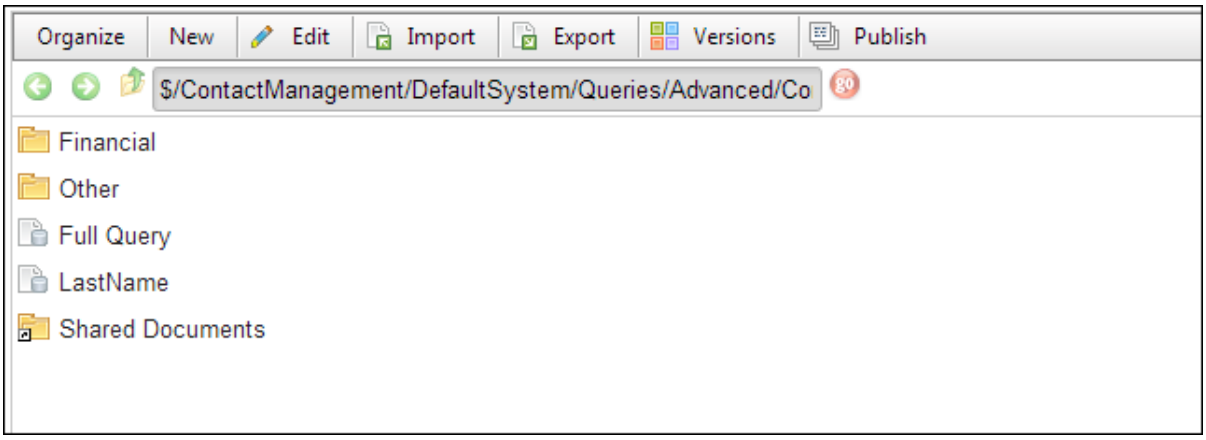
> **Note:** Modifying stored procedures requires advanced SQL knowledge. It is strongly recommended that you work with an ASI consultant or your AiSP if you intend to modify the following stored procedures.

- **AsiGPSAnnualUpdate** – Used to calculate or recalculate the actual totals for a specified year.
- **AsiGPSUpdateValues** – Used to set the **Goal** or **Industry** values for a specified year.
- **AsiGPSAnnualReportPivot** – Used to set the **Green/Yellow/Red** indicators for each index using a calculation of the **Actual** value as a percentage of the **Goal** or **Industry** target:
- □ **Green** – 95% or higher
- □ **Yellow** – 90% or higher
- □ **Red** – below 90%

## Contact reports

Contact reports can be used to detail activity participation, personal information, and statistics. Users can create labels, rosters, and certificates.

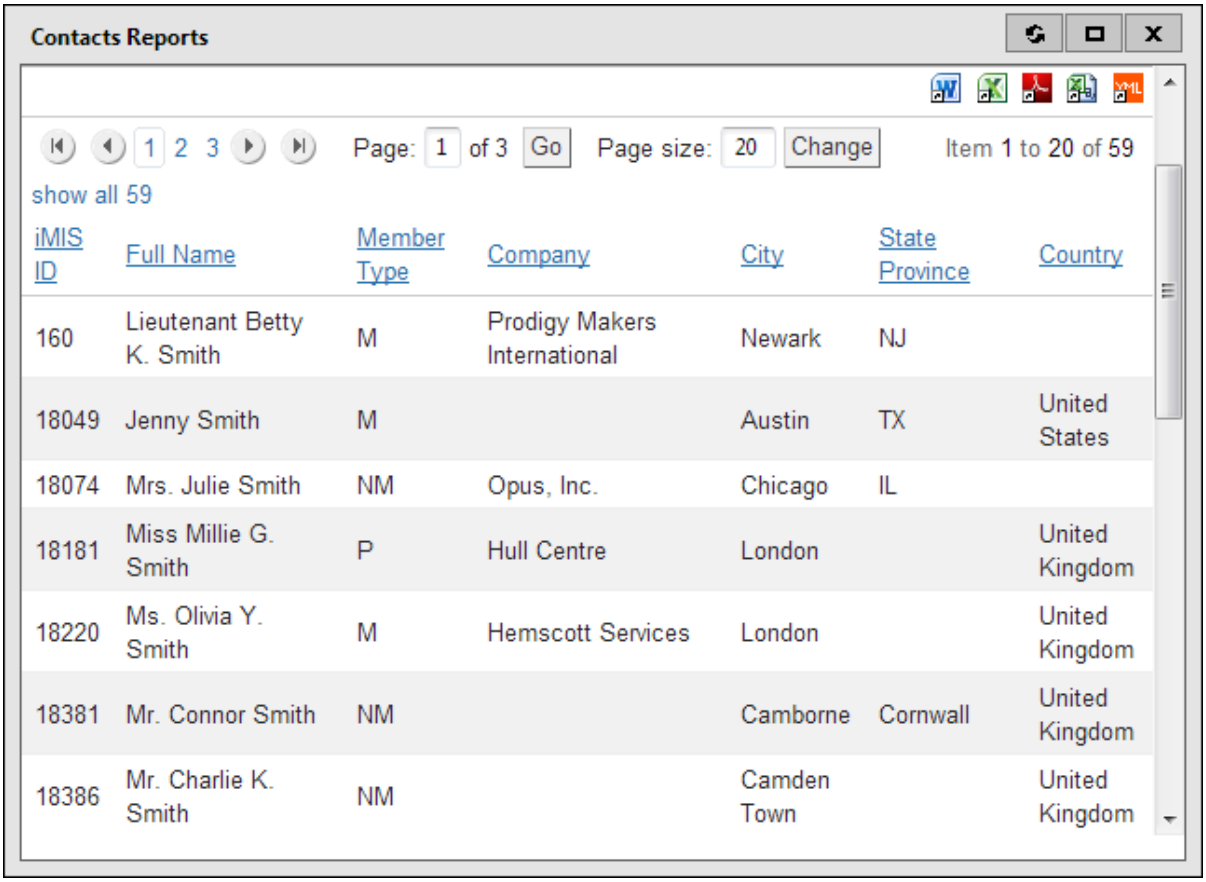
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Do the following to run a Contact report:

1. In the Staff site, go to **Continuum > Contact reports**.
2. Select an existing query, for example, **LastName**.
3. Double-click the query.
4. Enter parameters as requested.
5. Click **Find**. A report is displayed.

   Click to view image




| iMIS ID | Full Name | Member Type | Company | City | State Province | Country |
|---|---|---|---|---|---|---|
| 160 | Lieutenant Betty K. Smith | M | Prodigy Makers International | Newark | NJ | |
| 18049 | Jenny Smith | M | | Austin | TX | United States |
| 18074 | Mrs. Julie Smith | NM | Opus, Inc. | Chicago | IL | |
| 18181 | Miss Millie G. Smith | P | Hull Centre | London | | United Kingdom |
| 18220 | Ms. Olivia Y. Smith | M | Hemscott Services | London | | United Kingdom |
| 18381 | Mr. Connor Smith | NM | | Camborne | Cornwall | United Kingdom |
| 18386 | Mr. Charlie K. Smith | NM | | Camden Town | | United Kingdom |

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Do the following to edit a query:

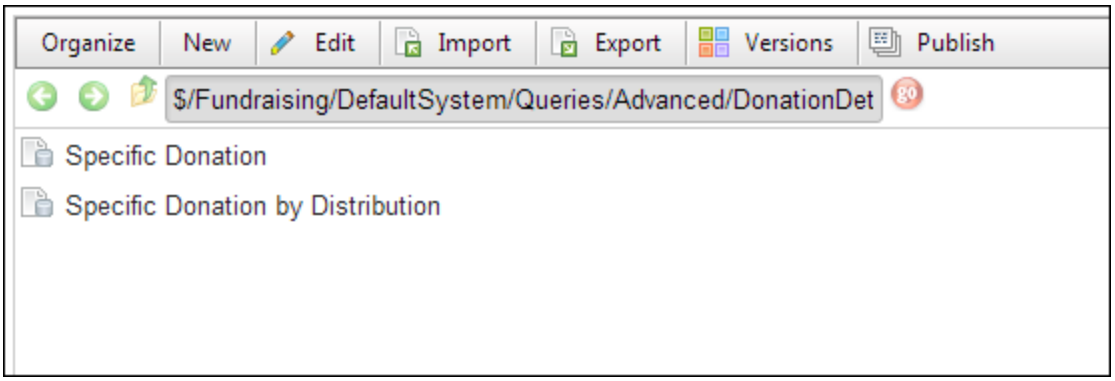
1. Select an existing query.
2. Click **Edit**.
3. Change the values on the **Summary**, **Sources**, **Filters**, **Display** and **Sorting** tabs as necessary.

   You can also create a new query. Go to Defining a query (Basic mode) for more information.

## Fundraising reports

The fundraising reports and outputs are generated from information gathered during customer entry, registration entry, gift entry, order entry, and planning processes.

Click to view image

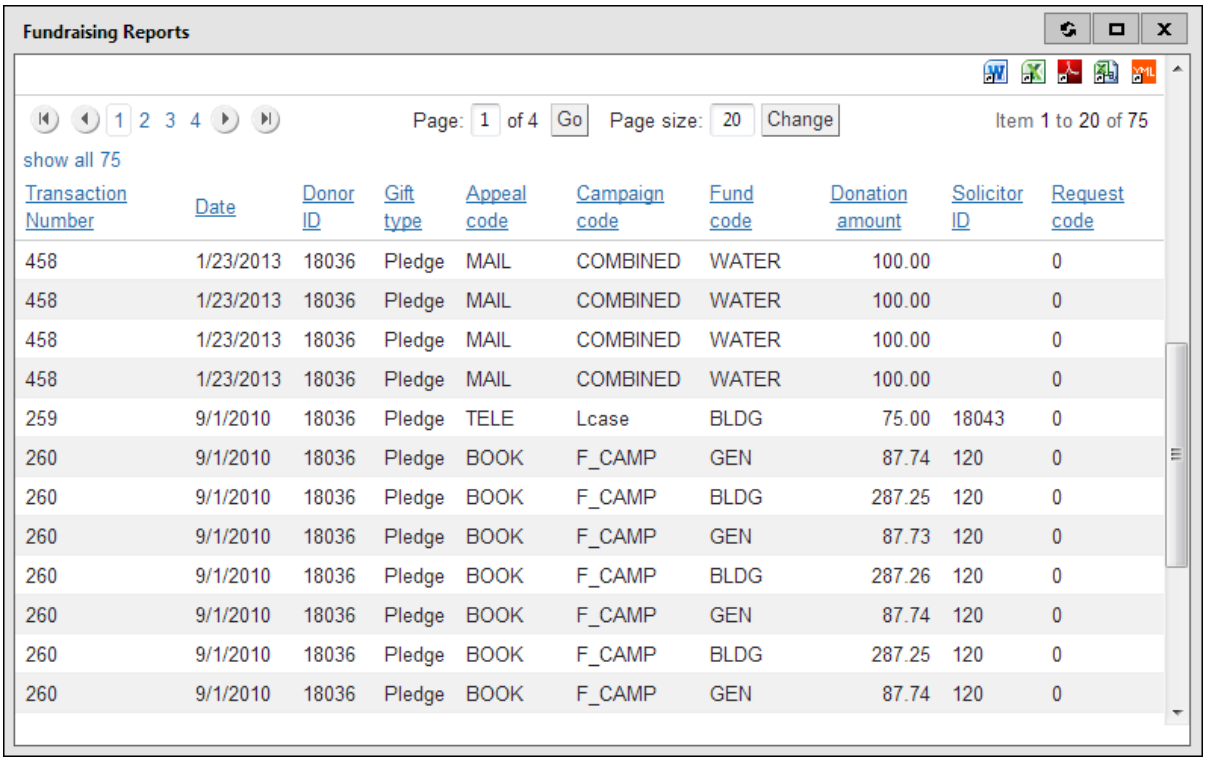



---

Do the following to run a Fundraising report:

1. In the Staff site, go to **Continuum > Fundraising reports**.
2. Select an existing query, for example, **Specific Donation**.
3. Double-click the query.
4. Enter parameters as requested.
5. Click **Find**. A report is displayed.

Click to view image




| Transaction Number | Date | Donor ID | Gift type | Appeal code | Campaign code | Fund code | Donation amount | Solicitor ID | Request code |
|---|---|---|---|---|---|---|---|---|---|
| 458 | 1/23/2013 | 18036 | Pledge | MAIL | COMBINED | WATER | 100.00 | | 0 |
| 458 | 1/23/2013 | 18036 | Pledge | MAIL | COMBINED | WATER | 100.00 | | 0 |
| 458 | 1/23/2013 | 18036 | Pledge | MAIL | COMBINED | WATER | 100.00 | | 0 |
| 458 | 1/23/2013 | 18036 | Pledge | MAIL | COMBINED | WATER | 100.00 | | 0 |
| 259 | 9/1/2010 | 18036 | Pledge | TELE | Lcase | BLDG | 75.00 | 18043 | 0 |
| 260 | 9/1/2010 | 18036 | Pledge | BOOK | F_CAMP | GEN | 87.74 | 120 | 0 |
| 260 | 9/1/2010 | 18036 | Pledge | BOOK | F_CAMP | BLDG | 287.25 | 120 | 0 |
| 260 | 9/1/2010 | 18036 | Pledge | BOOK | F_CAMP | GEN | 87.73 | 120 | 0 |
| 260 | 9/1/2010 | 18036 | Pledge | BOOK | F_CAMP | BLDG | 287.26 | 120 | 0 |
| 260 | 9/1/2010 | 18036 | Pledge | BOOK | F_CAMP | GEN | 87.74 | 120 | 0 |
| 260 | 9/1/2010 | 18036 | Pledge | BOOK | F_CAMP | BLDG | 287.25 | 120 | 0 |
| 260 | 9/1/2010 | 18036 | Pledge | BOOK | F_CAMP | GEN | 87.74 | 120 | 0 |

Do the following to edit a query:

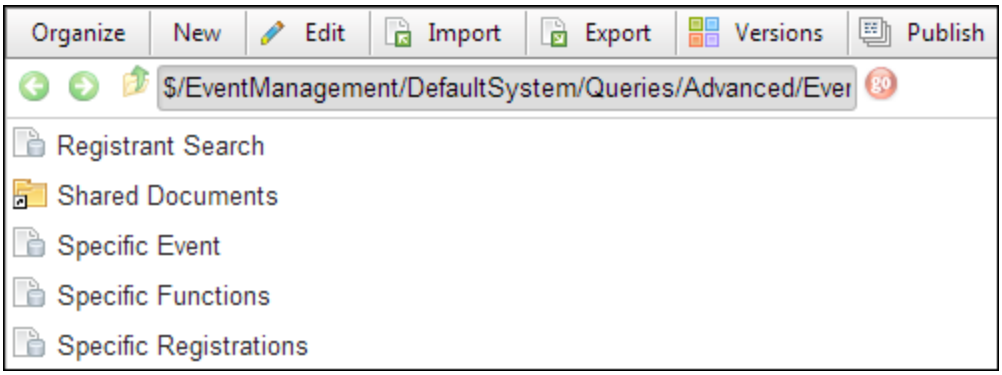
1. Select an existing query.
2. Click **Edit**.
3. Change the values on the **Summary**, **Sources**, **Filters**, **Display** and **Sorting** tabs as necessary.

You can also create a new query. Go to Defining a query (Basic mode) for more information.

## Event reports

The Event reports and outputs are generated from information gathered during event creation and registration.

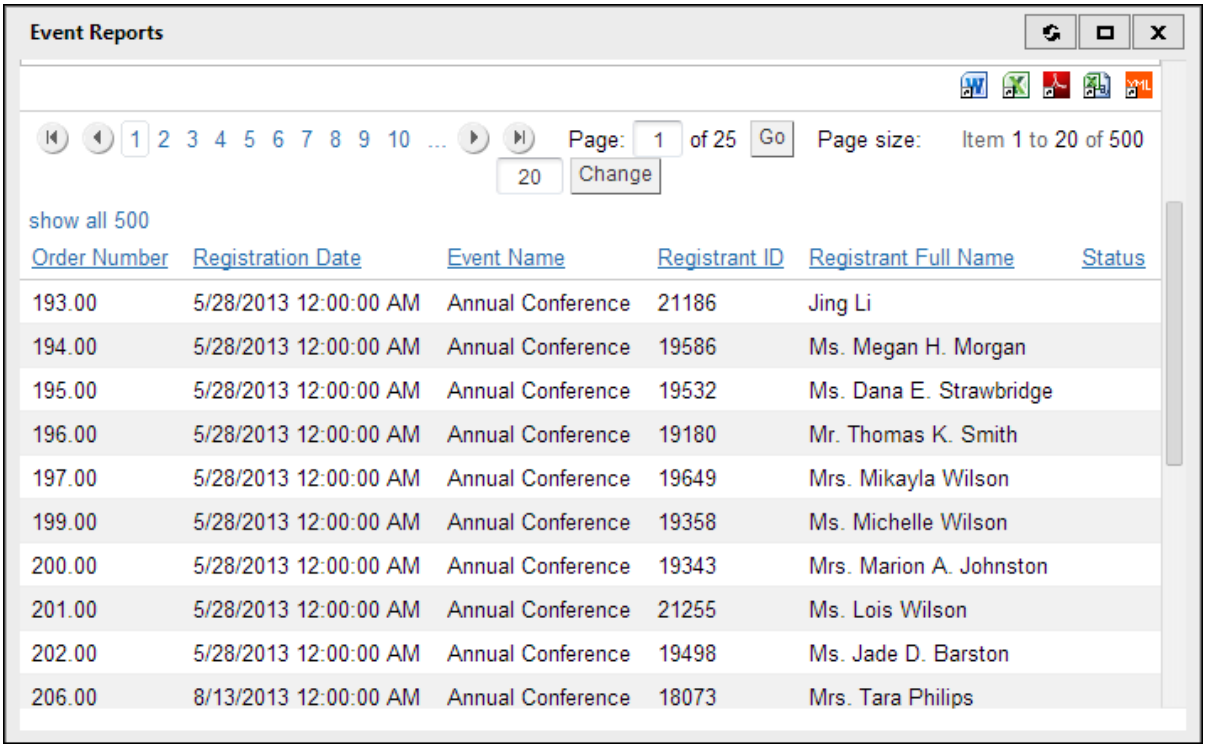
Click to view image




Do the following to run an Event report:

1. In the Staff site, go to **Continuum > Event reports**.
2. Select an existing query, for example, **Specific Event**.
3. Double-click the query.
4. Enter parameters as requested.
5. Click **Find**. A report is displayed.

Click to view image




| Order Number | Registration Date | Event Name | Registrant ID | Registrant Full Name | Status |
|---|---|---|---|---|---|
| 193.00 | 5/28/2013 12:00:00 AM | Annual Conference | 21186 | Jing Li | |
| 194.00 | 5/28/2013 12:00:00 AM | Annual Conference | 19586 | Ms. Megan H. Morgan | |
| 195.00 | 5/28/2013 12:00:00 AM | Annual Conference | 19532 | Ms. Dana E. Strawbridge | |
| 196.00 | 5/28/2013 12:00:00 AM | Annual Conference | 19180 | Mr. Thomas K. Smith | |
| 197.00 | 5/28/2013 12:00:00 AM | Annual Conference | 19649 | Mrs. Mikayla Wilson | |
| 199.00 | 5/28/2013 12:00:00 AM | Annual Conference | 19358 | Ms. Michelle Wilson | |
| 200.00 | 5/28/2013 12:00:00 AM | Annual Conference | 19343 | Mrs. Marion A. Johnston | |
| 201.00 | 5/28/2013 12:00:00 AM | Annual Conference | 21255 | Ms. Lois Wilson | |
| 202.00 | 5/28/2013 12:00:00 AM | Annual Conference | 19498 | Ms. Jade D. Barston | |
| 206.00 | 8/13/2013 12:00:00 AM | Annual Conference | 18073 | Mrs. Tara Philips | |

Do the following to edit a query:

1. Select an existing query.

2. Click **Edit**.
3. Change the values on the **Summary**, **Sources**, **Filters**, **Display** and **Sorting tabs** as necessary.

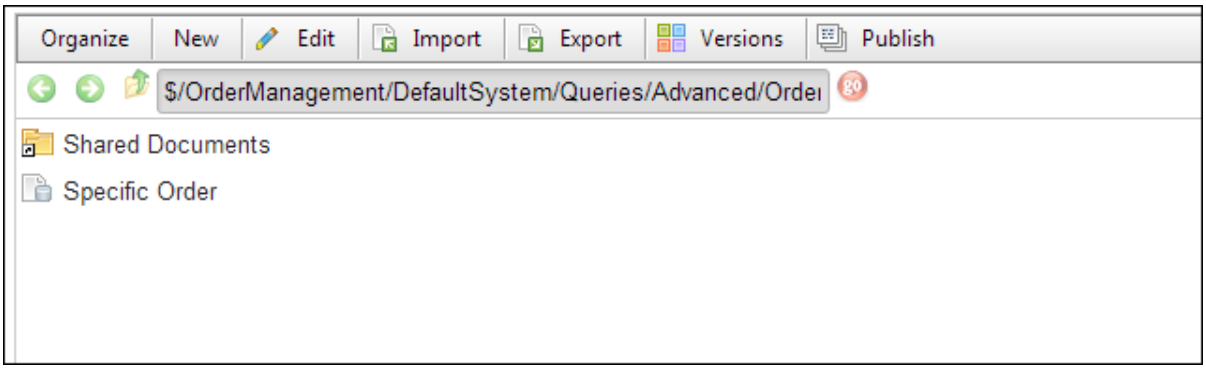
You can also create a new query. Go to Defining a query (Basic mode) for more information.

## Commerce reports

The commerce reports present data set results from the recording and processing of any or all of the following items:

- one or more new customer purchases
- one or more prepayments
- an ordered product
- the assignment of payment or billing instructions for an unpaid order balance
- one or more payments of an existing open invoice balance
- an adjustment related to a previously processed and posted transaction

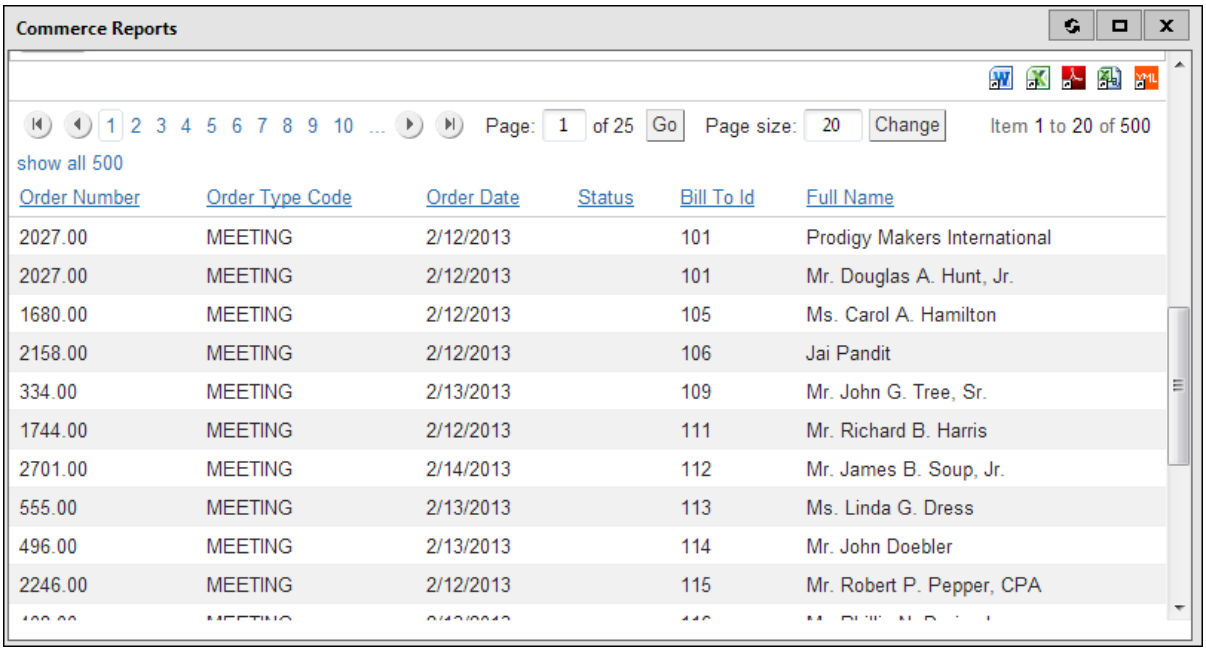
Click to view image




Do the following to run a Commerce report:

1. Go to **Continuum > Commerce reports**.
2. Select an existing query, for example, **Specific Order**.
3. Double-click the query.
4. Enter parameters as requested.
5. Click **Find**. A report is displayed.

Click to view image




Do the following to edit a query:

1. Select an existing query.
2. Click **Edit**.
3. Change the values on the **Summary**, **Sources**, **Filters**, **Display** and **Sorting** tabs as necessary.

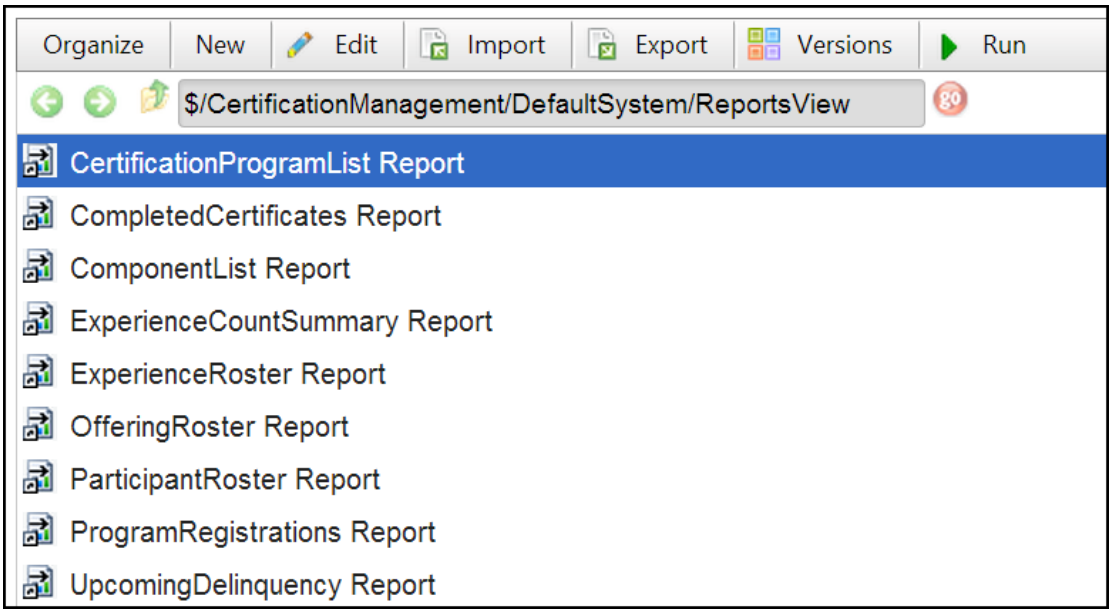
You can also create a new query. Go to Defining a query (Basic mode) for more information.

## Certification reports

Certification programs help your organization grant credits to customers for activities or achievements.

> **Note:** In order to access **Certification** reports under **Continuum**, in addition to having the **Certification** license key, staff (**Full User**) must be added to the **Reporting** and one of the **Certification** user groups. To assign users to groups, go to **Settings > Security Administration > Users**; in the **User Information** section, click **add group**, select the appropriate groups, and click **OK**.

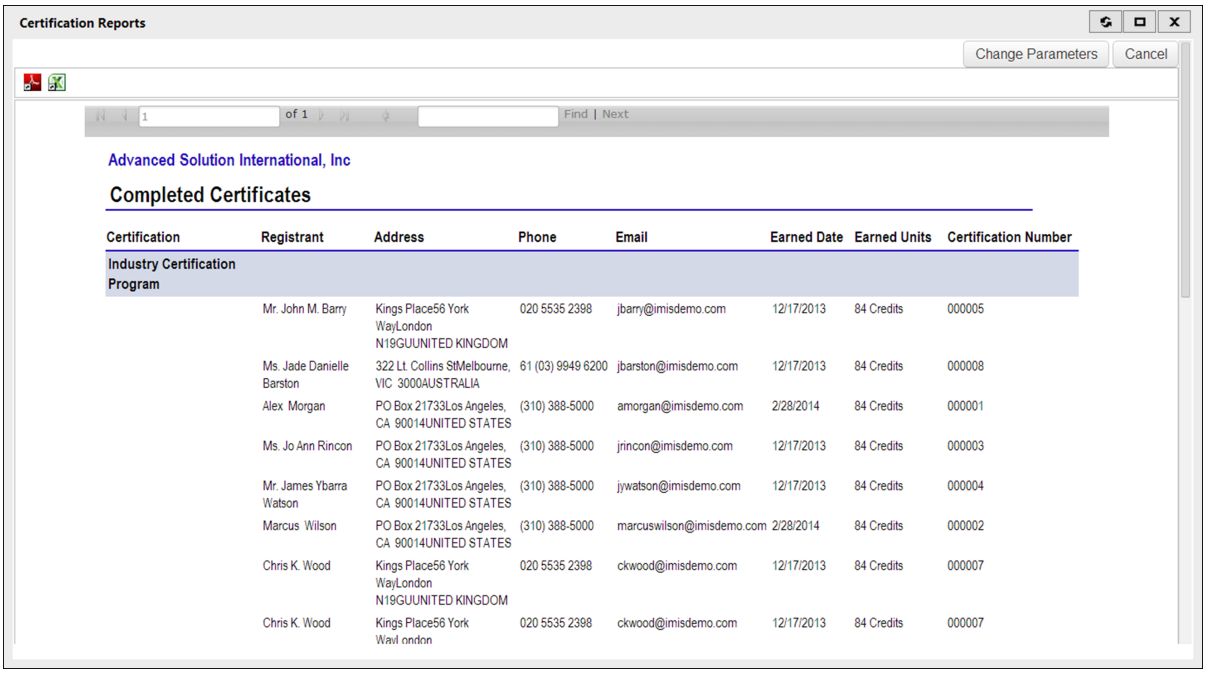
Click to view image




Do the following to run a Certification report:

1. Go to **Continuum > Certification reports**.
2. Select an existing report query, for example, **CompletedCertificates Report**.
3. Double-click the query.
4. Enter parameters as requested and **Find**.
5. Click **Run**. A report is displayed.

Click to view image




Do the following to edit a query:

1. Select an existing report.
2. Click **Preview**.
3. Click **Edit Source Query**.
4. Change the values on the **Summary**, **Sources**, **Output** and **Parameters** tabs as necessary.

You can also create a new query. Go to Defining a query (Basic mode) for more information.

## Sample reports

### Sample reports: Campaigns

The following are sample reports for Campaigns:

Report title: Campaign Performance by Source Code
**Report Name:** CampaignPerformancePerSourceCode.rpt

**Description:** The **Campaign Performance per Source Code** Crystal report outlines the performance of a campaign at the Source Code level with relevant income and expenses related information.

**Driver Business Object:** Campaign

**Associated Query/Type:** Campaign by Name (Select at Runtime); use the default, select a query from the CORE (select **CampaignManagement> DefaultSystem> Queries> CampaignList**), or create a custom query. If you create a custom query, you must add the **Campaign** business object as one of the sources.

**Query Parameters:** Campaign Name

**Grouped By:** Campaign, Appeal, Solicitation

**Report Fields:** Campaign, Appeal, Solicitation, Source Code, Dropped Date, Total Revenue, Target Revenue, Percentage Difference, Actual Response Rate, Predicted Response Rate, Actual Cost, Net Revenue, ROI, Revenue per Thousand, Cost per Thousand, Date of First Response, Date of Last Response

---

Report title: Campaign Performance by Solicitation
**Report Name:** CampaignPerformancePerSolicitation.rpt

**Description:** Outlines the performance of a campaign at the Solicitation level with summaries of relevant income and expense-related information.

**Driver Business Object:** Campaign

**Associated Query/Type:** Campaign by Name (Select at Runtime); use the default, select a query from the CORE (select **CampaignManagement> DefaultSystem> Queries> CampaignList**), or create a custom query. If you create a custom query, you must add the **Campaign** business object as one of the sources.

**Query Parameters:** Campaign Name

**Grouped By:** Campaign, Appeal, Solicitation

**Report Fields:** Campaign, Appeal, Solicitation, Source Code, Dropped Date, Total Revenue, Target Revenue, Percentage Difference, Actual Response Rate, Predicted Response Rate, Actual Cost, Net Revenue, ROI, Revenue per Thousand, Cost per Thousand, Date of First Response, Date of Last Response

---

Report title: Campaign Purge
This report generates automatically when you select the **Purge Campaign** function.

**Report Name:** CampaignPurge.rpt

**Description:** Lists the names of the Campaign, Appeal, Solicitation, and Source Codes that have been purged.

**Driver Business Object:** Campaign

**Associated Query/Type:** All Campaigns (Select at Runtime); use the default, select a query from the CORE (select **CampaignManagement> DefaultSystem> Queries> CampaignList**), or create a custom query. If you create a custom query, you must add the **Campaign** business object as one of the sources.

**Crystal Filters:** Campaign Status = 1 (Inactive)

**Grouped By:** Campaign

**Report Fields:** Campaign, Appeal, Solicitation, Source Code

---

Report title: Campaign Stage
**Report Name:** CampaignStage.rpt

**Description:** Displays the stages of a campaign that manages responses to solicitations.

**Driver Business Object:** Campaign

**Associated Query/Type:** Campaign by Name (Select at Runtime); use the default, select a query from the CORE (select **CampaignManagement> DefaultSystem> Queries> CampaignList**), or create a custom query. If you create a custom query, you must add the **Campaign** business object as one of the sources.

**Crystal Filters/Parameters:** SourceList = Query

**Grouped By:** Campaign, Appeal, Solicitation

**Sorted By:** Campaign, Appeal, Solicitation, Source Code

**Report Fields:** Source Code, Response Staging

---

Report title: Campaign Confirmation

---

This report generates automatically when you select **Generate Output** for a Source Code. This report serves as a confirmation and helps the Campaign manager to double-check supplies prior to mailing.

**Report Name:** Confirmation.rpt

**Description:** Lists the names of Source Code, Process Definition, Inserts and Messages, Segment lists or queries, and the total number solicited for each Solicitation, Appeal, and Campaign.

**Driver Business Object:** Campaign

**Associated Query/Type:** All Campaigns (Select at Runtime); use the default, select a query from the CORE (select **CampaignManagement> DefaultSystem> Queries> CampaignList**), or create a custom query. If you create a custom query, you must add the **Campaign** business object as one of the sources.

> **Note:** You can access the Document System through the Staff site.

**Crystal Filters/Parameters:** None; auto-generated report

**Grouped By:** Campaign, Appeal, Solicitation

**Report Fields:** Source Code, Process Definition, Insert and Messages, Segment Lists or Queries, Quantity Dropped

**Sample reports: Segmentation**

The following are sample reports for Segmentation:

Report title: Segmentation Definition
**Report Name:** SegmentDefinition.rpt

**Description:** Displays the segment definitions for a given segmentation job. Also displays the segment name, description, creation date, creator, last modified date, last modified user, and source query for each segment.

**Driver Business Object:** SegmentationDef

**Associated Query/Type:** Segment Definition by Name; use the default, select a query from the CORE (select **SegmentManagement> DefaultSystem> Queries> JobList**), or create a custom query. If you create a custom query, you must add the **SegmentationDef** business object as one of the sources.

> **Note:** You can access the Document System through the Staff site.

**Query Filters/Parameters:** Segment Name

**Grouped By:** Segmentation Job

**Report Fields:** Job Name, Segment Name, Universe Query Filter, Description, Date Created, Creator, Date Updated, Updated by, Contacts

---

Report title: Segmentation Job
**Report Name:** SegmentJob.rpt

**Description:** Displays the segmentation job name, universe query name, creation date, creator, last modified date, and last modified user.

**Driver Business Object:** SegmentationJob

**Associated Query/Type:** Segment Job by Name (Select at Runtime); use the default, select a query from the CORE (select **SegmentManagement> DefaultSystem> Queries> JobList**), or create a custom query. If you create a custom query, you must add the SegmentationJob business object as one of the sources.

> **Note:** You can access the Document System through the Staff site.

**Query Filters/Parameters:** Name

**Report Fields:** Job Name, Universe Query Filter, Date Created, Creator, Date Updated, Updated by

---

**Sample reports: RFM**
The following are sample reports for RFM:

Report title: RFM Profile

---

**Report Name:** RFMProfile.rpt

**Description:** Prints a profile for the specified RFM analysis with detailed information on date created, user created, date last run, and population and transaction query.

**Driver Business Object:** RFMAnalysis

**Associated Query/Type:** RFM Analysis by Name (Select at Runtime); use the default, select a query from the CORE (select **RFMAnalysist> DefaultSystem> Queries> RFMList**), or create a custom query. If you create a custom query, you must add the **RFMAnalysis** business object as one of the sources.

**Query Filters/Parameters:** RFMAnalysisName

**Grouped By:** RFMAnalysisName

**Report Fields:** Analysis Name, Date Created, User Created

**Sub-report Fields: RFMProfileRecencySub:** Recency Ranking Group, Number of Contacts

**Sub-report Fields: RFMProfileFrequencySub:** Frequency Ranking Group, Number of Contacts

**Sub-report Fields: RFMProfileMonetarySub:** Monetary Ranking Group, Number of Contacts

---

Report title: RFM Analysis Preview Report
**Report Name:** RFMRunPreview.rpt

**Description:** Prints the number of individuals assigned to the group for each ranking group in the series, the least and most recent transaction date, the lowest and highest individual count of transactions, and lowest and highest individual transaction total. This report can be run as a preview or as a final report.

**Driver Business Object:** RFMAnalysis

**Associated Query/Type:** RFM Analysis by Name (Select at Runtime); use the default, select a query from the CORE (select **RFMAnalysist> DefaultSystem> Queries>**

**RFMList**), or create a custom query. If you create a custom query, you must add the **RFMAnalysis** business object as one of the sources.

**Query Filters/Parameters:** RFMAnalysisName

**Grouped By:** RFMAnalysisName

**Report Fields:** Analysis Name, Date Created

**Sub-report Fields: RFMRunPreviewRecencySub:** Recency Ranking Group, Number of Contacts, Percentage, Earliest Contact, Latest Contact

**Sub-report Fields: RFMRunPreviewFrequencySub:** Frequency Ranking Group, Number of Contacts, Percentage, Lowest Count, Highest Count

**Sub-report Fields: RFMRunPreviewMonetarySub:** Monetary Ranking Group, Number of Contacts, Percentage, Lowest Amount, Highest Amount

---

**Sample reports: Process Manager**
**Continuum > Process Manager reports** is where any and all reports are run for Process Manager. The output for each report is defined by a query, and each query prompts the user for distinct parameter(s). These queries can be output to MS Word, MS Excel, and Crystal Reports.

- Most text parameters require exact matches
- Date parameters use system short date.
- If a field has a look up value list assigned to it, that value list will be available to you when entering parameters.

Report title: Action Report
**Report Name:** Action.rpt

**Description:** Tracks opportunity actions specific to Action Owners.

**Driver Business Object:** TaskItem

**Associated Query/Type:** Action Report Query (Select at Runtime); use the default, select a query from the CORE (select **OpportunityManagement> DefaultSystem> Quer-**

---

**ies> OpportunityList**), or create a custom query. If you create a custom query, you must add the **Opportunity** business object as one of the sources.

**Query Filters/Parameters:** Opportunity Type, Action Status

**Sorted By:** Company, Due Date

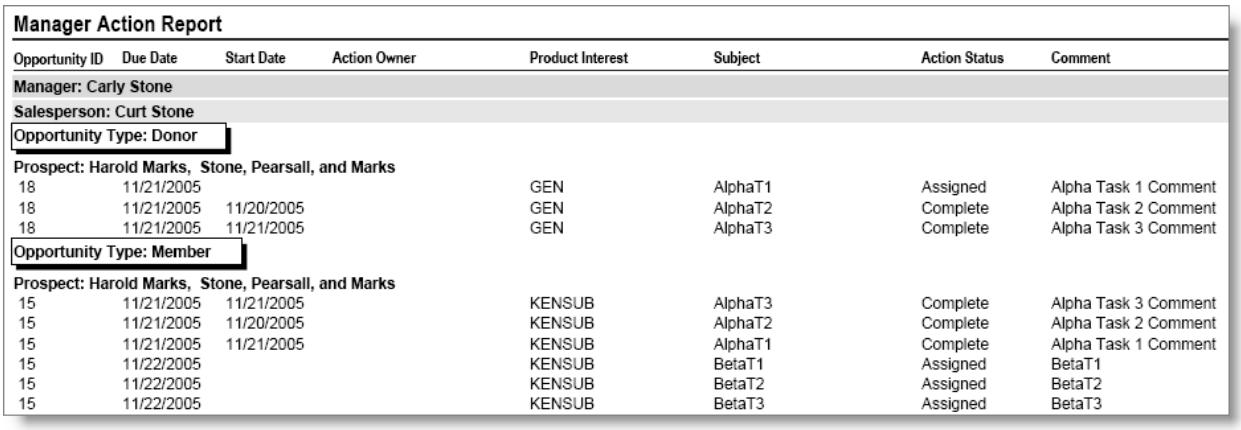
**Report Fields:** Opportunity ID, Start Date, Product Interest, Subject, Comment, Due Date, Status, Action Owner

Report title: Manager Action Report
The Manager Action Report provides information about current opportunities, their actions and action statuses; they are grouped by manager and salesperson.

Run this report from **Continuum > Process Manager** reports.

When filtering by Opportunity Class, the available filters are:

- OpportunityDonor
- OpportunitySales
- OpportunityMember



**Manager Action Report**

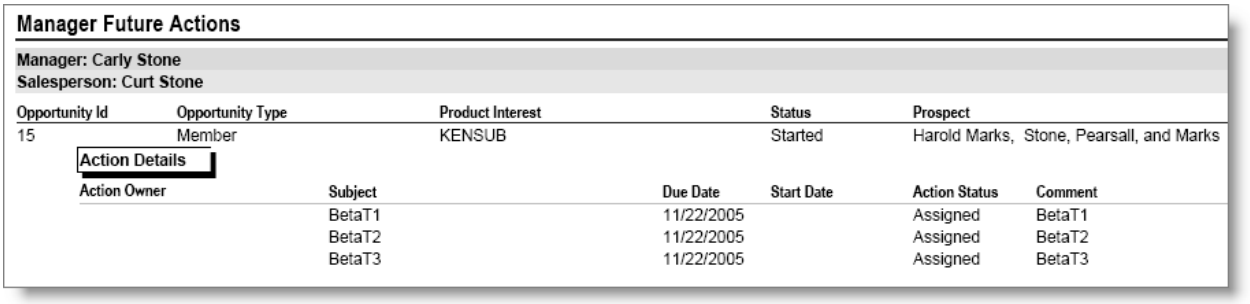
| Opportunity ID | Due Date | Start Date | Action Owner | Product Interest | Subject | Action Status | Comment |
|---|---|---|---|---|---|---|---|
| **Manager: Carly Stone** | | | | | | | |
| **Salesperson: Curt Stone** | | | | | | | |
| **Opportunity Type: Donor** | | | | | | | |
| **Prospect: Harold Marks, Stone, Pearsall, and Marks** | | | | | | | |
| 18 | 11/21/2005 | | | GEN | AlphaT1 | Assigned | Alpha Task 1 Comment |
| 18 | 11/21/2005 | 11/20/2005 | | GEN | AlphaT2 | Complete | Alpha Task 2 Comment |
| 18 | 11/21/2005 | 11/21/2005 | | GEN | AlphaT3 | Complete | Alpha Task 3 Comment |
| **Opportunity Type: Member** | | | | | | | |
| **Prospect: Harold Marks, Stone, Pearsall, and Marks** | | | | | | | |
| 15 | 11/21/2005 | 11/21/2005 | | KENSUB | AlphaT3 | Complete | Alpha Task 3 Comment |
| 15 | 11/21/2005 | 11/20/2005 | | KENSUB | AlphaT2 | Complete | Alpha Task 2 Comment |
| 15 | 11/21/2005 | 11/21/2005 | | KENSUB | AlphaT1 | Complete | Alpha Task 1 Comment |
| 15 | 11/22/2005 | | | KENSUB | BetaT1 | Assigned | BetaT1 |
| 15 | 11/22/2005 | | | KENSUB | BetaT2 | Assigned | BetaT2 |
| 15 | 11/22/2005 | | | KENSUB | BetaT3 | Assigned | BetaT3 |

*Manager Action Report*

Report title: Manager Future Actions
The Manager Future Actions report provides information about opportunities and their actions, action statuses, and their due dates grouped by manager and salesperson.

Run this report from **Continuum > Process Manager reports**.

> **Note:** If you do not set the date filters, the report will return all actions having a status of Assigned, In Progress, Researching, and On Hold regardless of their actual due dates.



**Manager Future Actions**

**Manager: Carly Stone**
**Salesperson: Curt Stone**

| Opportunity Id | Opportunity Type | Product Interest | Status | Prospect |
|---|---|---|---|---|
| 15 | Member | KENSUB | Started | Harold Marks, Stone, Pearsall, and Marks |

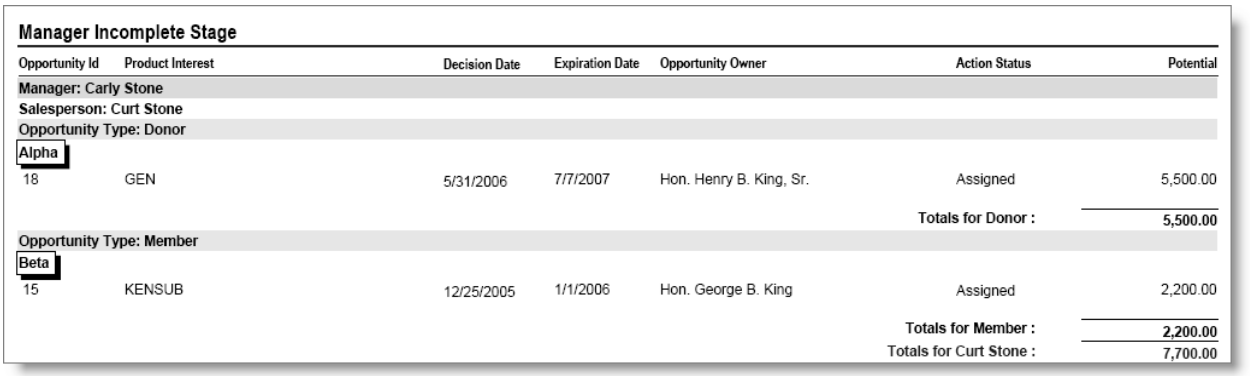
Action Details

| Action Owner | Subject | Due Date | Start Date | Action Status | Comment |
|---|---|---|---|---|---|
| | BetaT1 | 11/22/2005 | | Assigned | BetaT1 |
| | BetaT2 | 11/22/2005 | | Assigned | BetaT2 |
| | BetaT3 | 11/22/2005 | | Assigned | BetaT3 |

*Manager Future Actions*

Report title: Manager Incomplete Stage Report
The Manager Incomplete Stage report provides information about opportunities that have incomplete stages grouped by manager, salesperson, and opportunity type.

Run this report from **Continuum > Process Manager** reports.



**Manager Incomplete Stage**

| Opportunity Id | Product Interest | Decision Date | Expiration Date | Opportunity Owner | Action Status | Potential |
|---|---|---|---|---|---|---|
| **Manager: Carly Stone** | | | | | | |
| **Salesperson: Curt Stone** | | | | | | |
| **Opportunity Type: Donor** | | | | | | |
| Alpha | | | | | | |
| 18 | GEN | 5/31/2006 | 7/7/2007 | Hon. Henry B. King, Sr. | Assigned | 5,500.00 |
| | | | | | **Totals for Donor :** | **5,500.00** |
| **Opportunity Type: Member** | | | | | | |
| Beta | | | | | | |
| 15 | KENSUB | 12/25/2005 | 1/1/2006 | Hon. George B. King | Assigned | 2,200.00 |
| | | | | | **Totals for Member :** | **2,200.00** |
| | | | | | **Totals for Curt Stone :** | **7,700.00** |

*Manager Incomplete Stage*

**Report title: Incomplete Stage Report**
**Report Name:** IncompleteStage.rpt

**Description:** Tracks incomplete opportunities.

**Driver Business Object:** Opportunity

**Associated Query/Type:** Incomplete Stage Query (Select at Runtime); use the default, select a query from the CORE (select **OpportunityManagement> DefaultSystem> Queries> OpportunityList**), or create a custom query. If you create a custom query, you must add the **Opportunity** business object as one of the sources.

**Crystal Filters/Parameters:** Action Status <> Complete, Expiration Date >= Date parameter

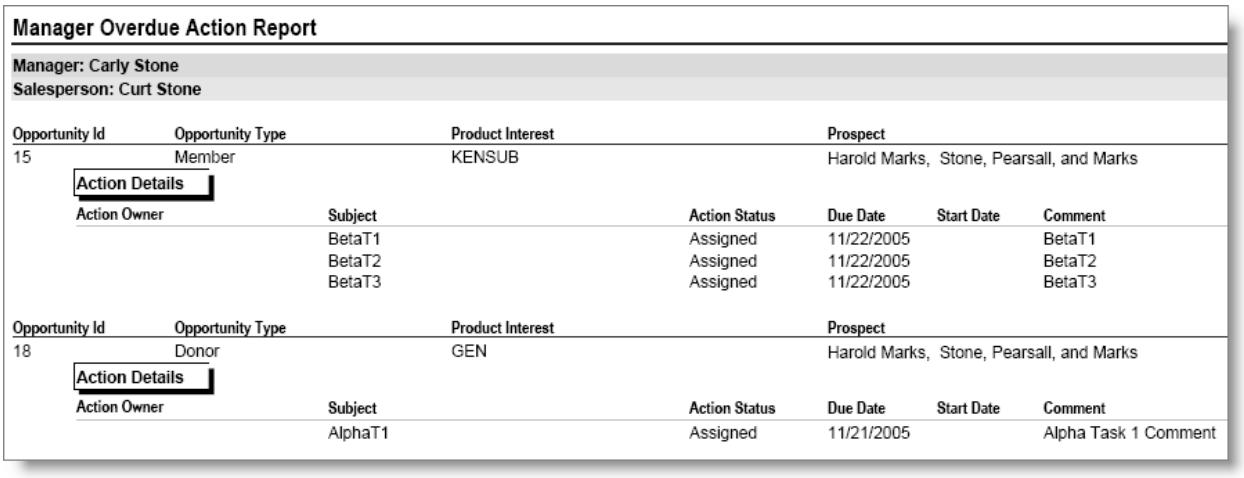
**Sorted By:** Type, Stage

**Report Fields:** Opportunity ID, Product Interest, Decision Date, Owner, Potential, Type, Stage

Report title: Manager Overdue Actions

The Manager Overdue Actions report lists opportunities that have overdue actions and provides details about the actions. The opportunities are grouped by manager and salesperson and sorted by Opportunity ID. Run this report from **Continuum > Process Manager reports**.

> **Note:** If you do not set the date filters, the report will return all actions having a status of Assigned, In Progress, Researching, and On Hold regardless of their actual due dates.



**Manager Overdue Action Report**

**Manager: Carly Stone**
**Salesperson: Curt Stone**

| Opportunity Id | Opportunity Type | Product Interest | Prospect |
|---|---|---|---|
| 15 | Member | KENSUB | Harold Marks, Stone, Pearsall, and Marks |

Action Details

| Action Owner | Subject | Action Status | Due Date | Start Date | Comment |
|---|---|---|---|---|---|
| | BetaT1 | Assigned | 11/22/2005 | | BetaT1 |
| | BetaT2 | Assigned | 11/22/2005 | | BetaT2 |
| | BetaT3 | Assigned | 11/22/2005 | | BetaT3 |

| Opportunity Id | Opportunity Type | Product Interest | Prospect |
|---|---|---|---|
| 18 | Donor | GEN | Harold Marks, Stone, Pearsall, and Marks |

Action Details

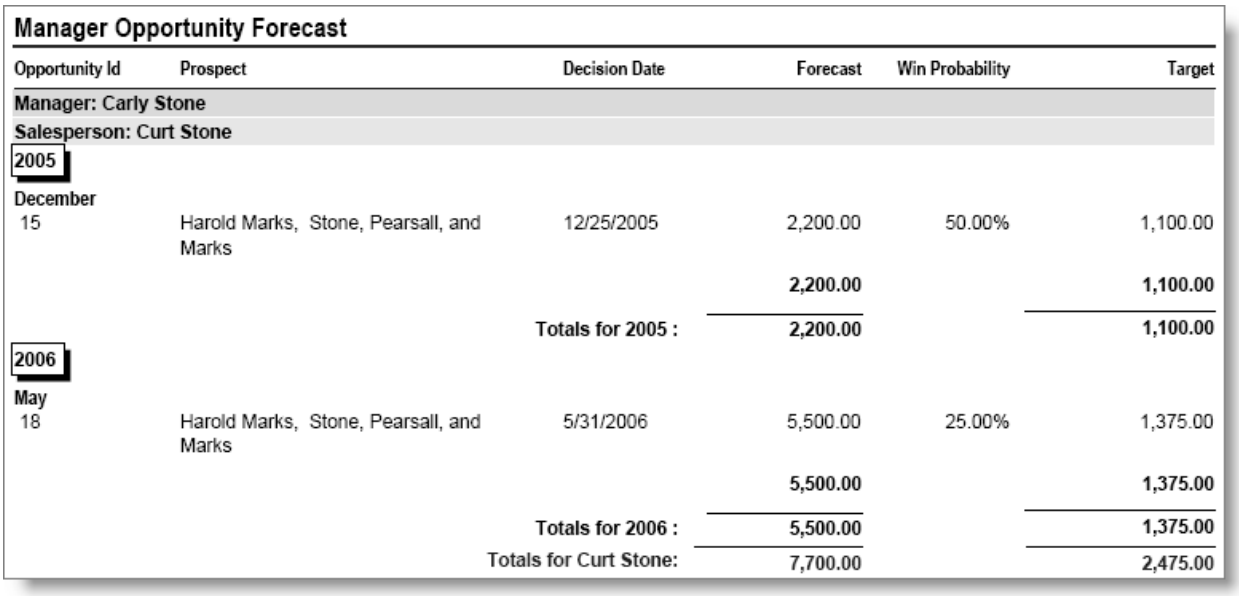
| Action Owner | Subject | Action Status | Due Date | Start Date | Comment |
|---|---|---|---|---|---|
| | AlphaT1 | Assigned | 11/21/2005 | | Alpha Task 1 Comment |

*Manager Overdue Actions*

Report title: Manager Project Forecast

The Manager Project Forecast provides information about opportunities - including decision dates, win probabilities, and targets - grouped by manager and salesperson and sorted by date. Run this report from **Continuum > Process Manager reports**.

> **Note:** Enter **Win Probability Filter** criteria in decimal form. For example, to return all opportunities with a win probability of less than fifty percent, enter 0.5.
> If the report contains opportunities that are assigned to more than one sales-person, the Forecast Grand Total will be inaccurate.



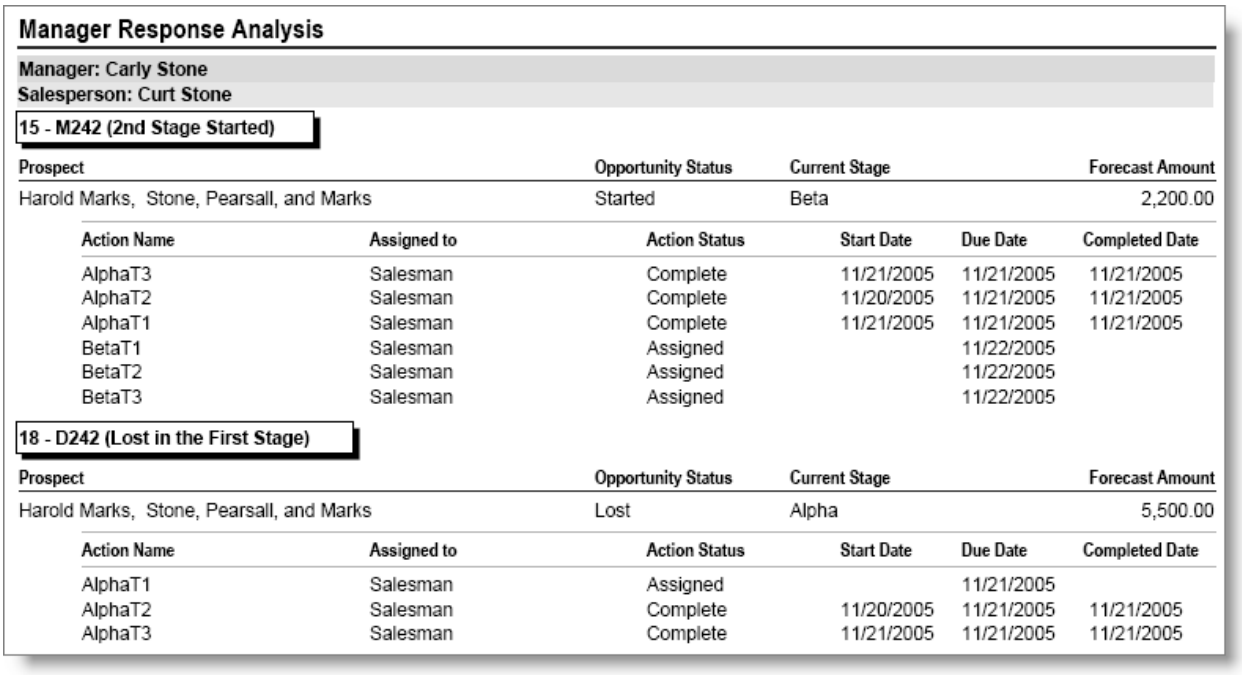
**Manager Opportunity Forecast**

| Opportunity Id | Prospect | Decision Date | Forecast | Win Probability | Target |
|---|---|---|---|---|---|
| **Manager: Carly Stone** | | | | | |
| **Salesperson: Curt Stone** | | | | | |
| **2005** | | | | | |
| **December** | | | | | |
| 15 | Harold Marks, Stone, Pearsall, and Marks | 12/25/2005 | 2,200.00 | 50.00% | 1,100.00 |
| | | | **2,200.00** | | **1,100.00** |
| | | **Totals for 2005 :** | **2,200.00** | | **1,100.00** |
| **2006** | | | | | |
| **May** | | | | | |
| 18 | Harold Marks, Stone, Pearsall, and Marks | 5/31/2006 | 5,500.00 | 25.00% | 1,375.00 |
| | | | **5,500.00** | | **1,375.00** |
| | | **Totals for 2006 :** | **5,500.00** | | **1,375.00** |
| | | **Totals for Curt Stone:** | **7,700.00** | | **2,475.00** |

*Manager Project Forecast*

Report title: Manager Response Analysis

The Manager Response Analysis lists opportunities and their current stages and statuses. Run this report from **Continuum > Process Manager reports**.



**Manager Response Analysis**

**Manager: Carly Stone**
**Salesperson: Curt Stone**

**15 - M242 (2nd Stage Started)**

| Prospect | Opportunity Status | Current Stage | Forecast Amount |
|---|---|---|---|
| Harold Marks, Stone, Pearsall, and Marks | Started | Beta | 2,200.00 |

| Action Name | Assigned to | Action Status | Start Date | Due Date | Completed Date |
|---|---|---|---|---|---|
| AlphaT3 | Salesman | Complete | 11/21/2005 | 11/21/2005 | 11/21/2005 |
| AlphaT2 | Salesman | Complete | 11/20/2005 | 11/21/2005 | 11/21/2005 |
| AlphaT1 | Salesman | Complete | 11/21/2005 | 11/21/2005 | 11/21/2005 |
| BetaT1 | Salesman | Assigned | | 11/22/2005 | |
| BetaT2 | Salesman | Assigned | | 11/22/2005 | |
| BetaT3 | Salesman | Assigned | | 11/22/2005 | |

**18 - D242 (Lost in the First Stage)**

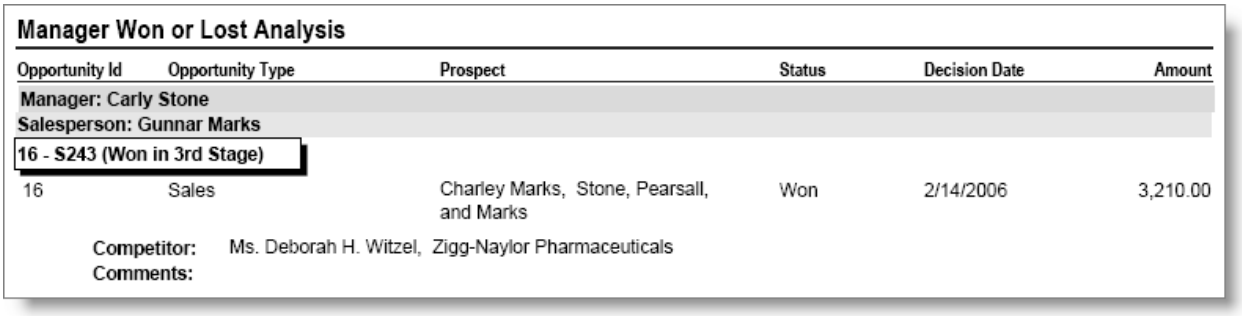
| Prospect | Opportunity Status | Current Stage | Forecast Amount |
|---|---|---|---|
| Harold Marks, Stone, Pearsall, and Marks | Lost | Alpha | 5,500.00 |

| Action Name | Assigned to | Action Status | Start Date | Due Date | Completed Date |
|---|---|---|---|---|---|
| AlphaT1 | Salesman | Assigned | | 11/21/2005 | |
| AlphaT2 | Salesman | Complete | 11/20/2005 | 11/21/2005 | 11/21/2005 |
| AlphaT3 | Salesman | Complete | 11/21/2005 | 11/21/2005 | 11/21/2005 |

*Manager Response Analysis*

Report title: Manager Win/Loss Analysis report

The Manager Win/Loss Analysis report lists, by manager and salesperson, the outcome of opportunities. Run this report from **Continuum > Process Manager reports**.



**Manager Won or Lost Analysis**

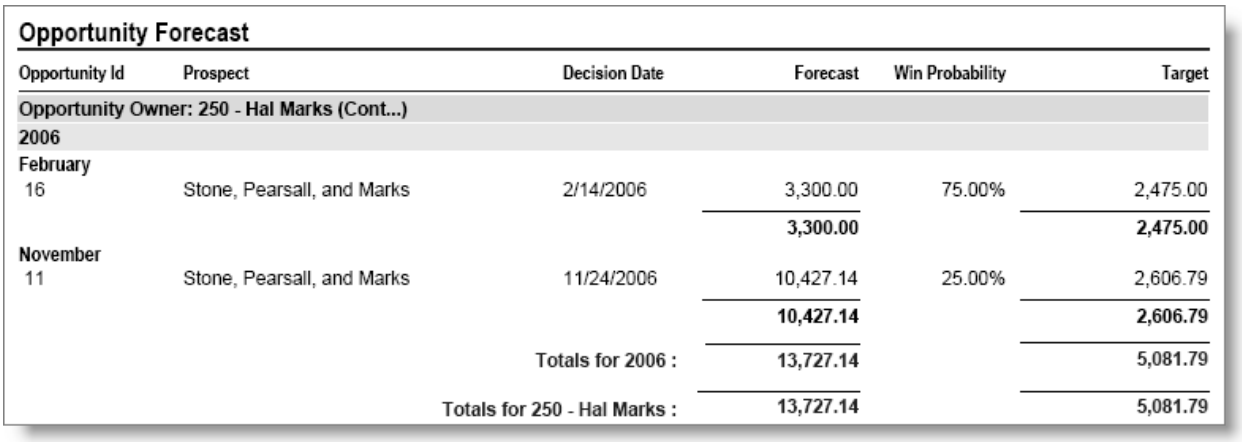
| Opportunity Id | Opportunity Type | Prospect | Status | Decision Date | Amount |
|---|---|---|---|---|---|
| **Manager: Carly Stone** | | | | | |
| **Salesperson: Gunnar Marks** | | | | | |
| **16 - S243 (Won in 3rd Stage)** | | | | | |
| 16 | Sales | Charley Marks, Stone, Pearsall, and Marks | Won | 2/14/2006 | 3,210.00 |

**Competitor:** Ms. Deborah H. Witzel, Zigg-Naylor Pharmaceuticals
**Comments:**

*Manager Win/Loss Analysis*

Report title: Project Forecast

The Project Forecast report lists, by opportunity owner, current opportunities, and projected income based on their current win probabilities. Run this report from **Continuum > Process Manager reports**.



**Opportunity Forecast**

| Opportunity Id | Prospect | Decision Date | Forecast | Win Probability | Target |
|---|---|---|---|---|---|
| Opportunity Owner: 250 - Hal Marks (Cont...) | | | | | |
| 2006 | | | | | |
| February | | | | | |
| 16 | Stone, Pearsall, and Marks | 2/14/2006 | 3,300.00 | 75.00% | 2,475.00 |
| | | | **3,300.00** | | **2,475.00** |
| November | | | | | |
| 11 | Stone, Pearsall, and Marks | 11/24/2006 | 10,427.14 | 25.00% | 2,606.79 |
| | | | **10,427.14** | | **2,606.79** |
| | | Totals for 2006 : | **13,727.14** | | 5,081.79 |
| | | Totals for 250 - Hal Marks : | **13,727.14** | | 5,081.79 |

*Project Forecast*

Report title: Project Forecast

**Report Name:** OpportunityForecastDonor.rpt

**Description:** Tracks opportunities with a high probability of closing. This report is used to track opportunities with upcoming decision dates.

**Driver Business Object:** Opportunity Donor

**Associated Query/Type:** Opportunity Forecast for Donor (Select at Runtime); use the default, select a query from the CORE (select **OpportunityManagement> DefaultSystem> Queries> OpportunityList**), or create a custom query. If you create a custom query, you must add the **Opportunity** business object as one of the sources.

**Query Filters/Parameters:** Opportunity Status <> Closed, Probability < 100 Potential > 0, Begin Date >= DecisionDate, End Date <= Decision Date

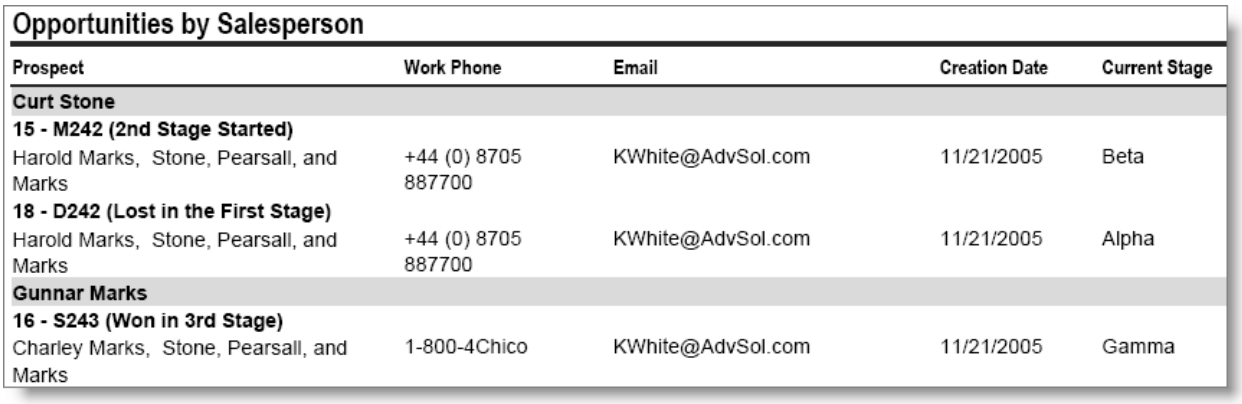
**Sorted By:** OpportunityOwner, Year, Month, Company, Decision Date

**Report Fields:** Opportunity ID, Target, Forecast, Win Probability, Decision Date

Report title: Projects by Salesperson report

The Projects by Salesperson report lists, by salesperson, opportunities, and their statuses and, if applicable, their outcomes.

Run this report from **Continuum > Process Manager reports**.



**Opportunities by Salesperson**

| Prospect | Work Phone | Email | Creation Date | Current Stage |
|---|---|---|---|---|
| **Curt Stone** | | | | |
| **15 - M242 (2nd Stage Started)** | | | | |
| Harold Marks, Stone, Pearsall, and Marks | +44 (0) 8705 887700 | KWhite@AdvSol.com | 11/21/2005 | Beta |
| **18 - D242 (Lost in the First Stage)** | | | | |
| Harold Marks, Stone, Pearsall, and Marks | +44 (0) 8705 887700 | KWhite@AdvSol.com | 11/21/2005 | Alpha |
| **Gunnar Marks** | | | | |
| **16 - S243 (Won in 3rd Stage)** | | | | |
| Charley Marks, Stone, Pearsall, and Marks | 1-800-4Chico | KWhite@AdvSol.com | 11/21/2005 | Gamma |

*Projects by Salesperson*

Report title: Projects with Future Actions

**Report Name:** FutureActions.rpt

**Description:** Tracks opportunities with open actions in the future that are specific to Action Owners.

**Driver Business Object:** Opportunity

**Associated Query/Type:** Future Actions Query (Select at Runtime); use the default, select a query from the CORE (select **OpportunityManagement> DefaultSystem> Queries> OpportunityList**), or create a custom query. If you create a custom query, you must add the **Opportunity** business object as one of the sources.

**Query Filters/Parameters:** Action Owner = Task Assigned to, Type; Begin Date >= Due Date; End Date <= Due Date

**Sorted By:** Due Date, Company, Start Date

**Report Fields:** Opportunity ID, Start Date, Product Interest, Subject, Comment, Due Date, Action Status, Action Owner

Report title: Projects with Overdue Actions

**Report Name:** OverdueActions.rpt

**Description:** Tracks opportunities with actions overdue as of today's data that are specific to Action Owners. OverDue = Due Date is less than the current date and Action Status is not complete.

**Driver Business Object:** Opportunity

**Associated Query/Type:** Over Due Actions Report (Select at Runtime); use the default, select a query from the CORE (select **OpportunityManagement> DefaultSystem> Queries> OpportunityList**), or create a custom query. If you create a custom query, you must add the **Opportunity** business object as one of the sources.

**Query Filters/Parameters:** Action Owner, Action Status, OverDue Date = Current Date, Opportunity Type

**Sorted By:** Company, Due Date, Start Date

**Report Fields:** Opportunity ID, Start Date, Product Interest, Subject, Comment, Due Date, Action Status, Action Owner

---

Report title: Response Analysis
**Report Name:** Response.rpt

**Description:** Tracks responses to the actions specific to Action Owners.

**Driver Business Object:** Opportunity

Associated Query/Type: Response Analysis Query (Select at Runtime); use the default, select a query from the CORE (select **OpportunityManagement> DefaultSystem> Queries> OpportunityList**), or create a custom query. If you create a custom query, you must add the **Opportunity** business object as one of the sources.

**Query Filters/Parameters:** Opportunity Status <> Completed, Begin Date >= Start Date, End Date <= Start Date

**Sorted By:** Campaign, Appeal, Solicitation

**Report Fields:** Opportunity ID, Company, Opportunity Type, Action Status, Start Date, Response Media, Forecast Amount

---

Report title: Sales Person Action Report

The Sales Person Action Report lists, by salesperson, the status of assigned actions.

Run this report from **Continuum > Process Manager reports**.

**Note:** When filtering by Opportunity Class, the available filters are :

- OpportunityDonor
- OpportunitySales
- OpportunityMember

**Salesperson Action Report**

| Opportunity ID | Due Date | Start Date | Action Owner | Product Interest | Subject | Action Status | Comment |
|---|---|---|---|---|---|---|---|
| **Curt Stone** | | | | | | | |
| **Opportunity Type: Donor** | | | | | | | |
| **Prospect: Harold Marks, Stone, Pearsall, and Marks** | | | | | | | |
| 18 | 11/21/2005 | | | GEN | AlphaT1 | Assigned | Alpha Task 1 Comment |
| 18 | 11/21/2005 | 11/20/2005 | | GEN | AlphaT2 | Complete | Alpha Task 2 Comment |
| 18 | 11/21/2005 | 11/21/2005 | | GEN | AlphaT3 | Complete | Alpha Task 3 Comment |

*Sales Person Action Report*

Report title: Sales Person Future Actions

The Salesperson Future Actions report lists, by salesperson, opportunities and the details of their pending actions. Run this report from **Continuum > Process Manager reports**.

**Note:** If you do not set the date filters, the report will return all actions having a status of Assigned, In Progress, Researching, and On Hold regardless of their actual due dates.

**Salesperson Future Actions**

**Kenny B. Marks**

| Opportunity Id | Opportunity Type | Product Interest | Status | Prospect |
|---|---|---|---|---|
| 14 | Donor | MUG | Started | Greg Marks, Stone, Pearsall, and Marks |

Action Details

| Action Owner | Subject | Due Date | Start Date | Action Status | Comment |
|---|---|---|---|---|---|
| | AlphaT1 | 11/21/2005 | | Assigned | Alpha Task 1 Comment |

| Opportunity Id | Opportunity Type | Product Interest | Status | Prospect |
|---|---|---|---|---|
| 15 | Member | KENSUB | Started | Harold Marks, Stone, Pearsall, and Marks |

Action Details

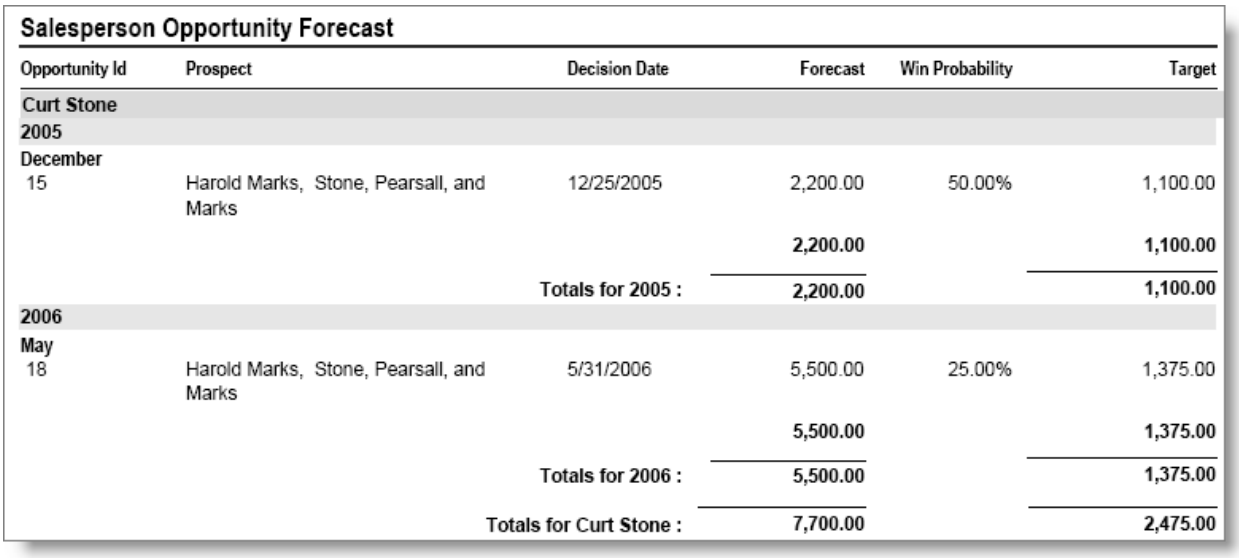
| Action Owner | Subject | Due Date | Start Date | Action Status | Comment |
|---|---|---|---|---|---|
| | BetaT1 | 11/22/2005 | | Assigned | BetaT1 |
| | BetaT2 | 11/22/2005 | | Assigned | BetaT2 |
| | BetaT3 | 11/22/2005 | | Assigned | BetaT3 |

*Sales Person Future Actions*

Report title: Sales Person Project Forecast report

The Sales Person Project Forecast report shows projected totals for each of a sales-person's opportunities based on their current win probabilities. Run this report from **Continuum > Process Manager reports**.

> **Note:** Enter **Win Probability Filter** criteria in decimal form. For example, to return all opportunities with a win probability of less than fifty percent, enter 0.5.
> If the report contains opportunities that are assigned to more than one sales-person, the Forecast Grand Total will be inaccurate.



**Salesperson Opportunity Forecast**

| Opportunity Id | Prospect | Decision Date | Forecast | Win Probability | Target |
|---|---|---|---|---|---|
| Curt Stone | | | | | |
| 2005 | | | | | |
| December | | | | | |
| 15 | Harold Marks, Stone, Pearsall, and Marks | 12/25/2005 | 2,200.00 | 50.00% | 1,100.00 |
| | | | **2,200.00** | | **1,100.00** |
| | | **Totals for 2005 :** | **2,200.00** | | **1,100.00** |
| 2006 | | | | | |
| May | | | | | |
| 18 | Harold Marks, Stone, Pearsall, and Marks | 5/31/2006 | 5,500.00 | 25.00% | 1,375.00 |
| | | | **5,500.00** | | **1,375.00** |
| | | **Totals for 2006 :** | **5,500.00** | | **1,375.00** |
| | | **Totals for Curt Stone :** | **7,700.00** | | **2,475.00** |

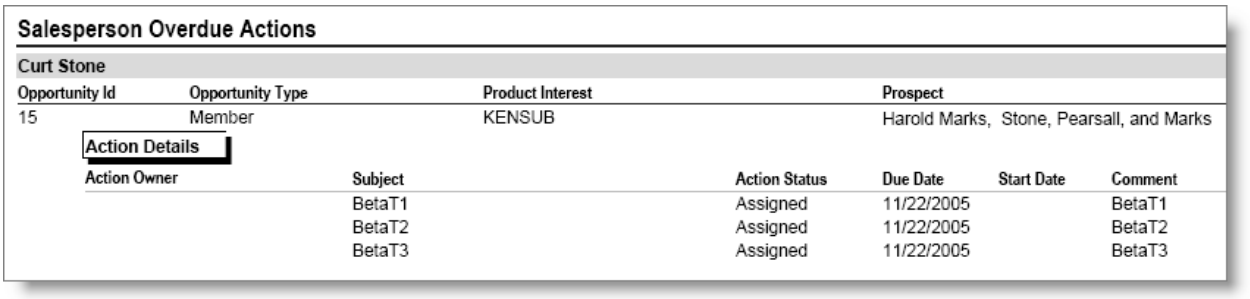
*Sales Person Project Forecast*

Report title: Sales Person Overdue Actions

The Salesperson Overdue Actions report lists, by salesperson, actions that have not been marked complete by their due date.

Run this report from **Continuum > Process Manager reports**.

> **Note:** If you do not set the date filters, the report will return all actions having a status of Assigned, In Progress, Researching, and On Hold regardless of their actual due dates.



**Salesperson Overdue Actions**

Curt Stone

| Opportunity Id | Opportunity Type | Product Interest | Prospect |
|---|---|---|---|
| 15 | Member | KENSUB | Harold Marks, Stone, Pearsall, and Marks |

Action Details

| Action Owner | Subject | Action Status | Due Date | Start Date | Comment |
|---|---|---|---|---|---|
| | BetaT1 | Assigned | 11/22/2005 | | BetaT1 |
| | BetaT2 | Assigned | 11/22/2005 | | BetaT2 |
| | BetaT3 | Assigned | 11/22/2005 | | BetaT3 |

*Sales Person Overdue Actions*

Report title: Won or Lost Process

**Report Name:** WonOrLostOpportunity.rpt

**Description:** Tracks won or lost opportunities.

**Driver Business Object:** Opportunity

**Associated Query/Type:** Won or Lost Opportunities (Select at Runtime); use the default, select a query from the CORE (select **OpportunityManagement> DefaultSystem> Queries> OpportunityList**), or create a custom query. If you create a custom query, you must add the **Opportunity** business object as one of the sources.

**Query Filters/Parameters:** Opportunities Status (must select Won or Lost; any other selection would result in an empty report)

**Sorted By:** OpportunityOwner, Company

**Report Fields:** Opportunity ID, Sales Representative, Competitors, Comments, Forecast Amount, Decision Date

## Understanding reports and output processes

iMIS Reports and Output Processes help you customize and manage reports, Microsoft Word merges, and email merges from the Staff site. These output processes use current iMIS database information and can be exported to a variety of output formats for maximum flexibility. With Reports and Output Processes, you can:

- Create and manage custom business data
- Use queries and business objects to generate output
- Customize report output

- Assign folder and document security
- Use templates to ensure consistency
- Export data to a variety of formats
- Use pre-built reports to assist non-technical users

### Process

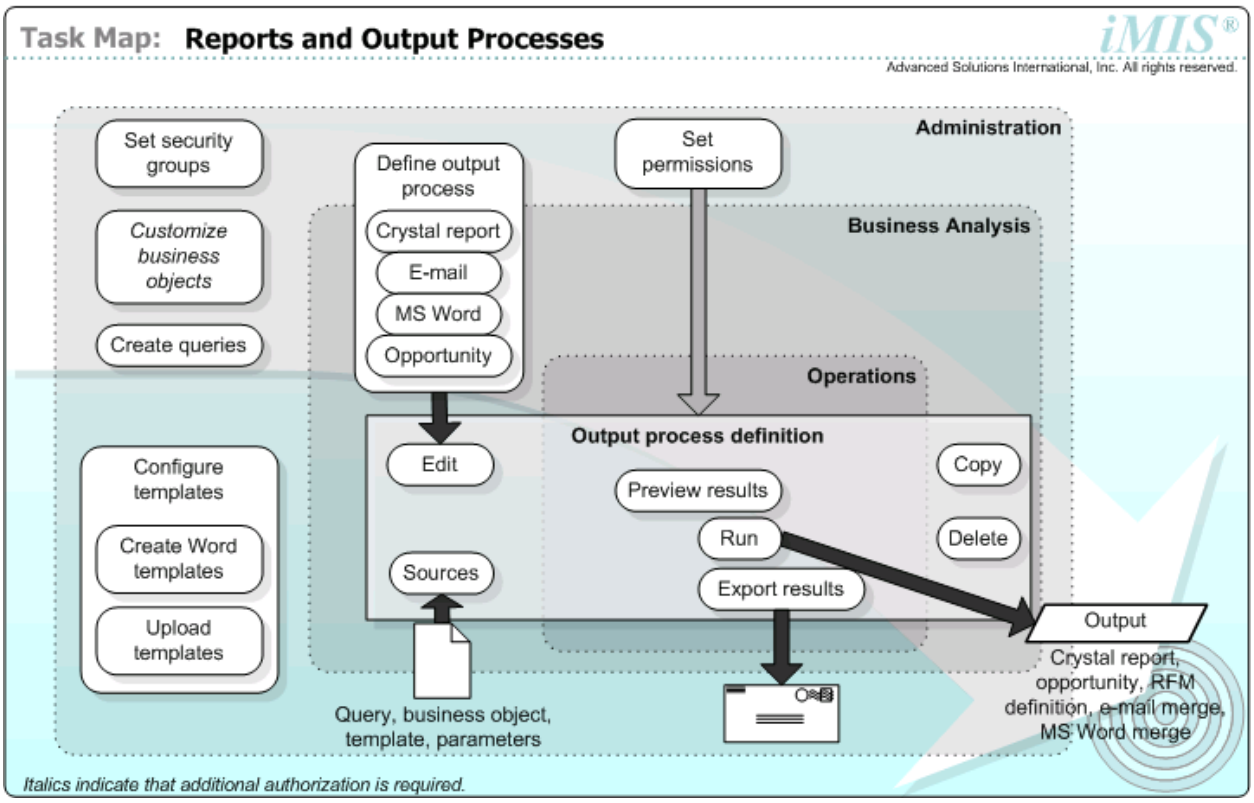
By using the flexible features, your staff can efficiently manage your organization's communications needs to meet your business goals. The process to set up and use Reports and Output Processes is:

- In **RiSE**, administrators modify default output processes/reports or create new ones.
- When using an application, managers can modify items in the output processes/reports folders, within limits set by the administrators, and run reports and output processes.
- Users can run reports and output processes through a simple interface, inputting any required information specified the administrators.

  In this tiered approach, managers and users do not have to know report setup or database schema to modify and run reports. Security settings determine the information each user can view.

#### Task Map: Reports and Output Processes

This diagram maps tasks for reporting and output processes, both by the approximate order they occur (top-left to bottom-right) and by the organizational area that performs them.




*Task Map: Reports and Output Processes*

## Concepts and Terms: Reports and Output Processes

**Asynchronous Process**

A process that runs independently (in the background) of other processes. Other processes may be started before the asynchronous process has finished.

**Bound Query**

A query that is connected to an output process definition and cannot be overridden at runtime.

**Driver Business Object**

A business object that validates, at runtime, that a selected query will be able to drive an output process; for example, a driver business object for a report would create the required index.

**Object**

Self-contained element that consists of instructions to manipulate data; for example, a business object or query object.

**Output Device**
Method through which a user views the results of an output process; for example, a computer screen, printer, or PDF file.

**Output Format**
Format in which the data resulting from an output process displays; for example, comma-delimited, tab-delimited, Excel, HTML, MS Word, or XML.

**Output Process**
Process-oriented task; for example, a report, MS Word merge, or query.

**Parameter**
User-supplied value that dynamically customizes output. A parameter can be hard-coded or specified at runtime.

For example, a query that outputs the registrants for a closed event could require the user to supply the event code at runtime.

**Process Definition**
Set of runtime-specific instructions used to execute an output process.

For example, to create a report process definition you must specify a report template, associate a data source (query), determine the output destination, and specify any parameters necessary to guide the process execution.

**Synchronous Process**
A process that runs as a result of another process being completed.

**Template**
A document that dictates the format and/or style of the output of a process definition. Many templates are designed through third-party packages, which are tightly integrated with the iMIS output processing system to produce high-quality output; for example, Microsoft Word documents, email text files, and report file formats.

## Creating output processes

**Tips for creating output processes**
Use output process templates for best efficiency. Some templates are designed through third-party packages which integrate with iMIS, such as Microsoft Word documents. Most output processes allow you to define and save the template while you build the process itself.

**Before you begin**

Before you create a project process output, make sure **Process Mgr** is set up to receive it.

**Process**

The process to create an output process is:

1. Set up security groups.
2. Create queries and customize business objects, if not using existing queries.
3. Create templates, if not using existing templates.
4. Define output processes and set permissions.

Setting up security groups

Security groups are hard-coded in iMIS. You cannot create new security groups. You can only add one or more system-defined security groups to a user record to define general reporting access. See Security Administration.

After you create an output process, you can set permissions for that specific process. See To set user permissions for an output process.

Creating queries for output processes

The source that you should use for the query depends on the context in which the output process will be used.

### Location of queries in the Document System

When defining an output process, users must browse to the appropriate query to use for the process. You should create all such queries in the **$ > Common > Shared Documents** folder (or one of its sub-folders) of the Document System to ensure that it will be easy to find the query when defining an output process.

> **Note:** You can access the Document System through the Staff site.

### Query source for Marketing output processes

You must typically define two separate output processes for marketing inserts because source codes and job segments differentiate between contacts and prospects.

- Job segments are defined as a Contact Job or as a Prospect job.
- Source codes are designated as either Contact source codes or as Prospect source codes.

  To send marketing inserts to both contacts and prospects, create two different inserts:

- One insert must use an output process whose query source is the NetContact business object.
- The other insert must use an output process whose query source is the Prospect business object.

> **Note:** You should not use CSContact or CSProspect as the query source for any output process associated with marketing inserts. Use only the NetContact or the Prospect business object as appropriate, depending on the associated source codes and job segments.

### Query source for action plans in Process Mgr

In **Process Mgr**, the appropriate query source for an output process depends on whether the process is being used in an action plan.

- If the output process is being used in an action plan, you must use the following query sources:
  - Donor action plans must use the OppDonorContact business object.
  - Sales action plans must use the OppSalesContact business object.
  - Member action plans must use the OppMemberContact business object.
- If the output process is not being used in an action plan, you can use any of the preceding three business objects for the query source, or you can use the NetContact business object.

### Query source for other applications

If you are not using the query source for anything related to **Marketing** or **Process Mgr**, use the CsContact business object as a query source.

Customizing business objects

To validate that the query selected for the output process will indeed drive the process as you expect, you may need to customize a driver business object (usually the Contact

business object). See Editing an existing business object.

Using templates for output processes

Use output process templates for MS Word merges or email merges for greater efficiency.

Create the basic template in Microsoft Word. Upload it and add any iMIS-based merge fields when you create the output process.

1. Open Microsoft Word.
2. Create the base text and graphics for your template.
3. Save your template to a local or network drive.
4. Close Microsoft Word.

Defining output processes

The process for defining the types of output processes (MS Word merge, email merge, opportunity/project) are similar. After you define the process, you can set user permissions for that process.

### Defining a Microsoft Word mail merge output process

#### Before you begin

- Ensure that you have created an appropriate query, using the appropriate business object, to use as the query for this type of output process.
- Templates from iMIS 10 versions may be incompatible. If you are using new search criteria for your Microsoft Word mail merge that includes something other than date criteria, you will need to recreate your template.

1. In the Staffs site, go to **RiSE > Document system**.

   **Note:** You can access the Document System through the Staff site.

2. Navigate to (or create) the folder in which you want to create the MS Word merge process.
3. Select **New > MS Word Mail Merge**.
4. Define the output process:
   - In the **Summary** tab, enter general information.
   - In the **Sources** tab, browse to select the **Source Data Query**.
   - Leave the **Template Name** field blank.

> **Note:** If you upload an existing template or browse to a template that has been uploaded, the template will not be saved as part of the Word mail merge process and you will need to add the merge fields. It is simpler to create a new template during the output process.

5. Create a new template in Microsoft Word (these instructions are for Word 2003):
   - Select **Edit Template**. A new Microsoft Word document appears.
   - Click Word's **Mail Merge** toolbar or consider using the Mail Merge wizard to create the template.
   - Create the letter and add merge fields using the **Insert Merge Fields** icon. (The merge fields are the fields from the query that is associated to the output process display.)
   - Select **Save**, which commits the changes to the Word template.

     > **Note:** The MS word template is embedded within the output process itself.

   - (optional) Save a copy of this template outside of iMIS by selecting **Save As**.
6. Close Word.
   The **Template Name** field remains blank because the template is embedded within the process itself.
7. Execute your merge:
   - From the **Process Engine Portfolio**, select **Run**.
   - Select **Execute Merge**.

     > **Note:** You may need to click twice to activate this control.

   - View the **Merge Details**.
   - Open Microsoft Word to review, print, or save the output.
   - Close Microsoft Word.
8. Save the output process to the appropriate folder location.

### Defining an email merge output process for email notifications

You can define an email merge process in which a query provides the merge data to be combined with an email template to create the output.

### Notes

- Email merge processes should generally be stored in the **$ > Common > Shared Documents > Processes** folder (or one of its sub-folders) of the Document System to provide for easy access by all users working with **Marketing** or **Process Mgr**. If they are stored in any other folder, users need to navigate through the Document System folder hierarchy to locate the process.
- You must associate a query that contains a field with the email addresses of the recipients and the sources for any fields you use in the email.
- The **From** address must be a valid email address.
- You can also define email merge processes directly from the **Processes** tab of any **Insert** definition window in **Marketing**.

### Before you begin

Ensure that you have created an appropriate query, using the appropriate business object, to use as the query for this type of output process. See Creating queries for output processes in iMIS Reference Reporting and Sample Reports for more information.

1. In the Staff site, go to **RiSE > Document system**.
2. Navigate to (or create) the folder in which you want to create the email merge process.
3. Select **New > Email Merge**. The Define window appears.
4. On the **Security** page, enter access information.
5. On the **Define** page, specify the email template:
   - On the **Summary** tab, define general attributes.
   - On the **Sources** tab, in the **Associated Query** area, choose whether the associated query should be:
   - **Bound** – a specific query is always used with the process. For email messages to be sent automatically when a stage is passed during a certification program, you want to choose **Bound**.
   - **Select at Runtime** – user selects the query each time the process runs.
6. In the **Query** area, click **…** , then use the Document System browser to select the bound or default **Query**. The query results determine the email addresses of the recipients and the variables that are allowed in the body of the email template.
   - In the **Recipient List** area, click **Edit** to specify which column in the query results contains the email address for the recipients.

> **Note:** This area is disabled until a query is chosen. If you specify the **Select at runtime** option for the **Associated Query**, you will not be able to specify the column for the recipient email address information until the email merge process is run.

- (optional) Enter the text for the **From** and **Subject** fields and specify whether they can be modified at runtime.
- Select the **Email Format**.

> **Note:** You must specify **HTML** if the body of the **Email Template** will contain an opt-out code. Opt-out codes in a **PlainText** or **Multi_Part_Mime** email will not direct recipients to the proper URL.

- In the **Email Template** area, enter the body of the message, using the following techniques:
- Insert text variables in the format **[businessObjectName.columnName]**. Only columns that are present in the query results will be properly substituted at runtime.
- To insert an opt-out code, insert a link to %OPTOUTURL%. From the **Type** drop-down list, select **Other** and click **OK**.
- (optional) Browse to import an email template from another folder within the Document System, or click **Upload** to import an existing email template from outside the Document System.

> **Note:** If you find some features of the HTML editor confusing, you can download user documentation for the editor. Some features described in this external document have not been enabled for use when defining email merge output processes.

- (optional) In the **Attachment** area, click **…** , then use the Document System browser to choose an attachment to the email message.

7. Click **Save**.

> **Note:** If your merge produces any email address duplicates, they result from the query specified in the merge.

### Defining a project process output

Create a project process output to generate projects or opportunities from a marketing campaign or other project. The generated opportunities are stored in the Process Manager document system.

1. In the Staff site, go to **RiSE > Document system**.
2. Navigate to (or create) the folder in which you want to create the project process output.
3. Select **New > Project Process Outputs**.
4. Define the project process output. In the **Summary** tab, enter the following:

- **Name**
- **Type**
- **Query**

5. Click **Save**.

### Setting user permissions for an output process

You can grant specific users and/or groups access to an individual output process from the Security tab:

1. Define an output process.
2. Select **Security**.
3. Select an **Access** option:

- **Share (Everyone)** – Grants everyone full control.
- **Private** – Grants full access to the query owner only.
- **Advanced** – Enables the **Access Mode** drop-down list and allows you to edit the access list. You can select one of the listed access areas or select **Custom** to select from a predefined list of security settings in which one or more roles and/or specific users have been granted access permissions.

4. Click **Save**.

Troubleshooting output processes

### Email merges

The following validation errors will prevent the merge from completing correctly:

- A required field has not been populated. The message will state which required field was not supplied.
- A parameter required for the query has not been supplied. The message will state which parameter was not supplied.

- The query assigned to the output process does not contain the business objects referred to in the template.
- The template uses field names that do not correspond to a column on any of the query's sources.
  A warning displays for each record for which no email address can be found (by searching through the To field).

### MS Word merges

Error messages about missing components can prevent the merge from completing correctly, so ensure that all of these components are installed on the web server or workstation:

- Microsoft Word (or Office)
- Microsoft .NET Framework
- Microsoft interop assemblies

> **Note:** See System requirements to be sure you are installing supported versions.

### Creating and modifying reports

Two reporting applications are available to help you create, manage, and deliver reports:

- Crystal Reports
- SQL Server Reporting Services
  Default report templates are supplied with iMIS. The administrator or manager can modify these reports to meet your organization's needs.

#### Creating a custom report

If you need custom reports that are not similar to the default reports, have your administrator:

1. Create a custom report.
2. Specify an associated query, as needed.
3. Define runtime information (such as adding parameters), as needed.
4. Store the report in an appropriate location in the Document System.

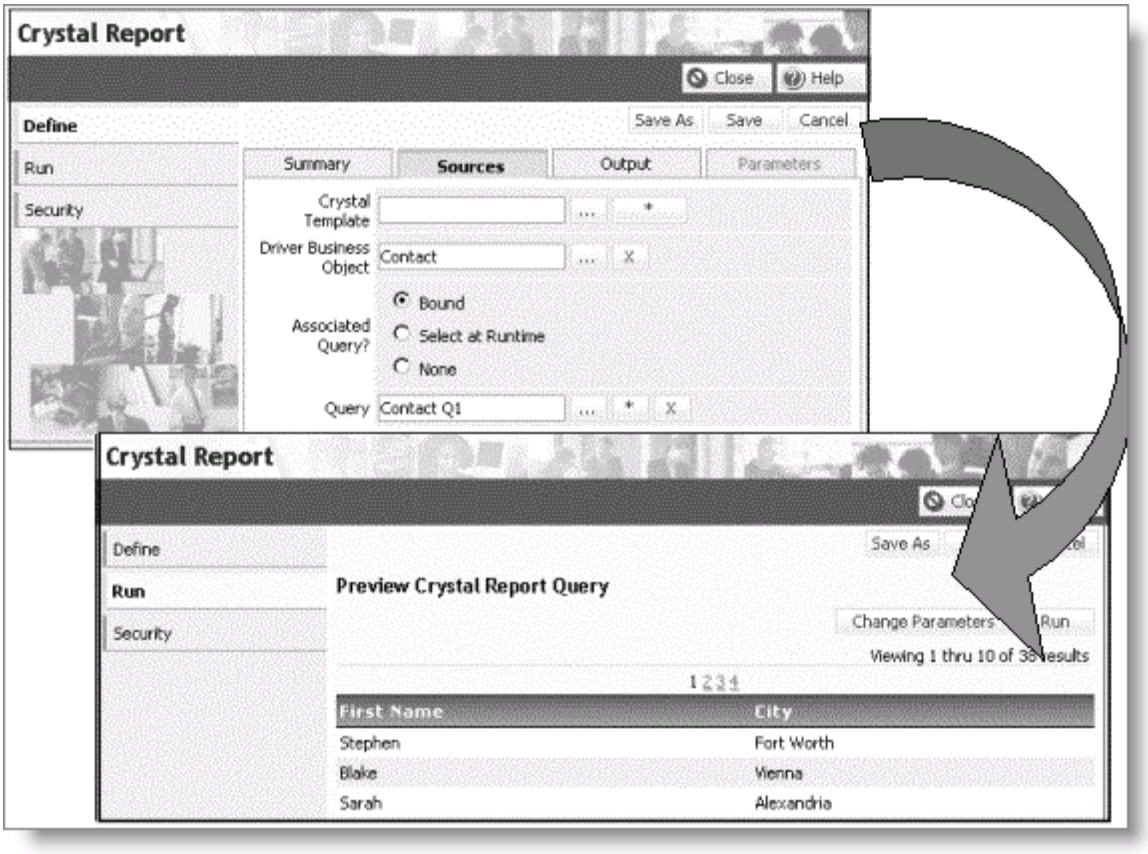
> **Note:** Access the Document System through the Staff site.

The manager, if granted access, has the ability to modify the report.

About Crystal Reports

Standard Crystal reports are supplied with iMIS. The administrator or manager can modify these reports to meet your organization's needs.

Click to view image




*Example of a Crystal report definition and its output*

If you need custom reports that are not similar to the standard reports, the administrator creates the custom report. The manager, if granted access, still has the ability to modify the report.

## Process

The process to set up a Crystal report is:

1. Create or modify a Crystal report template.
2. Create a Crystal report output process.

To modify an individual Crystal report, change the associated output process.

### Crystal Report Templates

The following default report templates can often be modified to meet your organization's needs:

- Mailing labels
- Invoices
- Badges
- Rosters
- AR/Cash Batch report
- AR/Cash Trial Balance
- Customer Profile
- Dues Renewal Notice
- Event Registration Confirmation
- Order Status
- Donor Profile
- Gift Receipt
- Campaign Performance
- Process Management Action report
- Process Forecast

#### Running reports and output processes

Managers and users can run reports and output processes from the related iMIS area in the Staff site, as designated in the Document System.

## Creating a site

To create a public-facing website that makes full use of content items and SOA, it is easiest to copy an existing Quick Start Site, such as **Member**, and change it to meet your needs.

#### Copying a website

When you copy a website, iMIS duplicates the site navigation and content records for the new site.

1. Go to **RiSE > Site Builder > Manage websites**.
2. Select a website from the list of websites and review the following fields before you proceed:

- (**Properties** tab) Make sure the folder selected for the **Website-specific parent content folder** field contains the content unique to this website. Only the content in this site-specific folder will be copied. Any content shared with another website should be placed in a separate, shared folder.
- (**Look and Feel** tab) The **Folder containing template content** is normally a sub-folder of the parent folder. If the template content (footer area, header logo, and so forth) is stored in a different folder, select that folder instead.

3. Copy a website.
   Click for details

a. Select **Organize > Copy**.
b. Select the folder where you want to paste the new website.
c. Select **Organize > Paste**.
d. Enter the **Name** of the new website, for example, **MemberCopy**. Do not use special characters or punctuation.

4. Click the expand icon in the **Status** area, and enable the **Is this website active?** option.
5. Publish the website. Select the website and click **Publish**.
6. Publish the new website's content.
   Click for details

a. Go to **RiSE > Page Builder > Manage content**.

> **Note:** When creating a copy of a sample website, the copied website's content will not be included in search results until the content has been published and the **Default Website (for search)** has been selected for the copied website's content folder.

b. Select the copied website's content folder.
c. Click **Edit**.
d. For the **Default Website (for search)** field, click **select**.
e. Select the website for which you want searches to always include the content records within this content folder.

f. Click **Save** and then close the window.
g. Publish the website's content folders. Select the content folder of the copied website.
h. Select **Publish**. As each folder and content record publishes, the status will change from **Publish Pending** to **Published**.

7. If the website is hosted on a separate web server, publish the **Core Content** folder.
   Click for details
   a. Go to **Page Builder > Manage content**.
   b. Select the **Core Content** folder.
   c. Select **Publish** menu and choose the **Publish All Items** option. As each folder and content record publishes, the status will change from **Publish Pending** to **Published**.
8. After all content folders are published, log off and close the browser.

> **Note:** If you need to set up specific payment method sets for your various websites, this can easily be done using the **Accounting** area of the **Advanced Accounting Console**.

> **Note:** If the website you copied contains URL shortcuts, be sure to review those shortcuts in your new website to determine if you need to create fresh shortcuts. For example, when you select the iMIS logo in the **Member** site, the page redirects to the shared Member Home content record. When you make a copy of the **Member** site and you select the iMIS logo from the new site, you will be redirected to the same shared Member Home content record. To resolve this, create a fresh shortcut that will point to your new Member Home.

### Deleting a website

A website administrator can delete a website and the content records associated with the website. However, you should proceed with caution, as a deleted website cannot be retrieved. Ensure the website is not a production site.

1. Go to **RiSE > Site Builder > Manage websites**.
2. Select the website you want to delete (such as **MemberCopy**).
3. Select **Organize > Delete**. A warning message is displayed.
4. Click **OK**. A results window is displayed.

5. Click **Close**.
6. Select **Recycle Bin**.
7. Select **Organize > Empty the Recycle Bin**. A warning message is displayed.
8. Click **OK**. A results window is displayed.
9. Click **Close**.
10. Go to **RiSE > Page Builder > Manage content**.
11. Select the content folder of the copied website.
12. Select **Organize > Delete**. A warning message is displayed.
13. Click **OK**. A results window is displayed.
14. Click **Close**.
15. Select **Recycle Bin**.
16. Select **Organize > Empty the Recycle Bin**. A warning message is displayed.
17. Click **OK**. A results window is displayed.
18. Click **Close**.

*See also*

- Importing content from a staging server
- Website maintenance
- Implementing a mobile site
- Customizing the Staff Account Page

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*See also*

- Importing content from a staging server
- Website maintenance
- Implementing a mobile site
- Customizing the Staff Account Page

## Importing content from a staging server

In a staged development environment, you use a separate staging iMIS application server to develop and test new CM websites, content, and navigation before putting these additions and changes on your production iMIS application server. A staging server must use a different iMIS database than your production server.

To prepare the staging server for first use, after iMIS is installed and properly working with a copy of your production iMIS database, you must export all of your CM definition objects from your production server and import them into the staging server. After this point, all new development for your CM environment should be performed only on your staging server. After testing your changes, you export the new or changed definition objects from the staging server, then import them into your production server. The objects that you will be exporting and importing are: websites (and subfolders in the website tree that contain websites), navigation items, content folders, content records, content lay-outs, content types, tags, and tagged list formats.

**Note:** One special requirement for working with a staged development envir-onment is that your tag hierarchy must always be identical on both servers before

you begin exporting and importing other objects. Therefore, any changes you make to the tag hierarchy itself must always be exported and imported first, before any other objects. This requirement means that when you are preparing your staging server for first use, you must import the tag hierarchy from your production server first, before importing everything else.

**Exporting and importing objects between your staging and production servers**

Whether you are preparing your staging server for first use or subsequently moving new content from your staging server to your production server, the general export and import process is the same. A general rule of thumb to speed the process is that you can export and import entire folders or nodes in a tree hierarchy of objects to process all descendant objects at once. When you import an XML file containing multiple objects, you are able to specify exactly which of them to import (except for tags, which are a special case).

**Warning!**

To ensure that dependencies between objects are always maintained, you must import objects in a specific order as described in the following steps.

1. In a browser window connected to the web view of the server from which you are exporting content (the source server), export your entire tag hierarchy and import it to the target server.

   Click for details

   a. From **Content Management**, select **Tagging > Define tags**.
   b. Select the root **Tags** object in the tag hierarchy, then from the toolbar, click **Export**.
   c. When the export begins, you are asked by Windows where to save the exported XML file on your local computer. At this point you can rename the XML file if you prefer to give it a more meaningful name.
   d. In a browser window connected to the Web view of the target server, select the root **Tags** object in the tag hierarchy, then from the toolbar choose **Import**. A window is displayed that enables you to browse for the location of the XML file on your local computer.

e. Click **Browse** to select the XML file, then click **Upload** to begin the import process. Unlike when importing other types of objects, you are not asked which tags you'd like to import. Instead, the entire tag hierarchy of the target server is overwritten by the tag hierarchy contained in the XML file.

2. In a browser window connected to the Web view of your source server, ensure that all the objects you plan to export are in a **Published** state. Objects that are still in a working state will not be included in the XML file created by the **Export** command. If you are preparing a staging server for first-time use, you must ensure that all CM definition objects on the production server are in a published state, because you must export all of them.

3. For each type of definition object, select the objects that you want to export and create an exported XML file.

- It can be helpful to export objects in the following order, to help you remember to import them to the target server in the same order:

i. Content types
ii. Tagged list formats
iii. Content layouts
iv. Content records
v. Websites
vi. Navigation items

- You can export the entire contents (all descendants) of a content folder, sub-folder in the websites tree, or all navigation items in a branch of a sitemap by selecting a folder or navigation item that contains descendants.
- You can export a portion of a content folder, or a portion of the websites in a given folder of the websites tree, or a portion of the navigation items within one branch of the sitemap hierarchy by holding **Shift** or **Ctrl** while selecting each object. For all other exportable object types (content layouts, content types, and tagged list formats), you can likewise multi-select any portion shown.

4. From the toolbar, choose **Export**.

- If the selected object type is a content folder, navigation item, or sub-folder in the websites tree, you are presented with the option to **Export children as well?**
- Select this checkbox to export all **Published** descendants of the object that you selected for export.

- Clear this checkbox to export only the object that you selected.
- When the export begins, you are asked by Windows where to save the exported XML file on your local computer. At this point you can rename the XML file if you prefer to give it a more meaningful name.

5. In a browser window connected to the Web view of your target server, select the location into which you want to import the contents of the XML file, then from the toolbar choose **Import**. A window is displayed that enables you to browse for the location of the XML file on your local computer.
6. Click **Browse** to select the XML file, then click **Upload** to begin the import process.

> **Warning!**
>
> You must import these XML files in the order shown in Step 3, to ensure that dependant objects are present in the target database when the object that depends on them is imported.

A window appears that enables you to selectively choose which objects in the XML file to import, and other options that affect the import results.

- In the **Import File Contents** area, ensure that the checkbox for every object that you want to import is selected. Note that if you choose not to import any folders that are listed in the XML file, the system will create a new folder with the same exact name (because the folder's children must still be placed in a folder with that name), but the definition of that new folder will comprise system-assigned defaults instead the original folder's definition.
- In this context of importing changes and additions between staging and production servers, it does not matter whether the **Overwrite existing objects** checkbox is selected or not. The only objects from the XML file that will actually be imported are those that are completely new to the target server (they were initially created on the source server), or those that are a more recently published version than the same content record already existing on the production server.
- In this context of importing changes and additions between staging and production servers, you should generally leave the **Override destination with** checkbox cleared. When selected, this option ignores the original folder paths of the objects in the XML file and

instead places all of the objects in a single flat level inside the definition object you selected as the target location for the imported objects, which is probably not the result that you want. For example, assume that on your staging server, you exported content folder A, which contained several content records and a sub-folder B, which in turn contained several content records. On your production folder, you selected content folder C before beginning the import. In this scenario:

- If you leave this checkbox cleared, the imported result will be a content folder A with several content records and a sub-folder B with several content records in it. In other words, an exact copy of the exported structure from your staging server.
- If you select this checkbox, all of the content records from both folder A and folder B will be placed directly in folder C. Additionally, both folder A and folder B will also be placed inside of folder C, with nothing inside of them.

7. Click **Import**. When the import is complete, review the **Messages** area to ensure that no unexpected import errors occurred. Note that it is entirely normal to receive various **Document already exists in a different path** errors. This means that some of the objects in your XML file were identical to an object in the target database. For example, assume that you have exported an entire content folder from your staging server, but only a few of the content records in that folder had been modified since the last time this content folder had been imported to your production server. When you import this XML file into your production server, you would receive this error for all of the content records that you had not changed since the last time you had imported this content folder from the staging server.

   > **Note:** If further edit on a sitemap is necessary, modify the navigation item on the staging server and then export only the affected sitemap node, instead of exporting the entire sitemap at its root level.

8. All of your imported objects on the target server are now in a working state, so you will need to re-publish them before they can be used (or will appear on a rendered website).

### Troubleshooting

- For an import to succeed, one of the following conditions must be true on the target database:

- All of the objects in the XML file must never have existed in the target database
- All of the objects in the XML file must have been completely purged from the target database. To completely purge an object you must delete it so that it ends up in the **Recycle Bin**, and then either purge that specific object from the **Recycle Bin** or empty the **Recycle Bin** entirely.
- All of the objects in the XML file must be replacing older published versions on the target database. For example, if you export objects from a production server to a staging server and make changes to them on the staging server, then you export the newer versions from the staging server and import them back to the production server, the versions from the staging server are newer than the versions on the production server, so the import will complete successfully.
- All of the objects in the XML file must be replacing completely different objects that have the same path and name AND you must select the **Overwrite existing objects** checkbox on import. For example, if you create a content record called **MyContent** in the content folder called **MyFolder** directly beneath the root (**@**) content folder, the path for this content record is **@/MyFolder/MyContent**. If you export the **MyContent** content record, then delete and purge the original **MyContent** content record, then create a brand new content record called **MyContent** in that same **MyFolder** content folder, then the import will complete successfully.
- Remember that multiple definition objects are required to render what end-users experience as "your website". If you import only a website object, that's not enough information to produce a rendered website in IIS. You must also import navigation items, content records, and so on. Every one of the following definition objects are potentially needed to render a website in IIS, so to "import an entire website" from one iMIS database to another, you need to import all of the following object types: websites, navigation items, content folders, content records, content layouts, content types, tags, and tagged list formats.
- Tags that are assigned to content records and content folders are not saved in the definition of the content record or content folder. Instead, the entire tag hierarchy is used to create an internal table that is associated with content records and content folders by using internal object IDs. This is why you must always import the entire tag hierarchy first before importing any other CM definition objects.

- You must have been granted the appropriate CAG permissions and Document System permissions in iMIS to use the **Export** and **Import** commands for all CM definition objects on both your staging server and on your production iMIS application server.

### Implementing a mobile site

The **Member Mobile** Quick Start Site is optimal for mobile devices like smart phones and tablets, featuring accessible content and a sitemap for members needing information on the go. The **Sapling** master page places key information at the top of the screen and works with the **Aspen Mobile** and **Austin Mobile** themes; featured styles are sized appropriately for smaller screens.

If you want to provide a mobile site for your members, we recommend that you start with a copy of the **Member Mobile** Quick Start Site, and then apply your changes. When you make a copy of the site, iMIS creates a copy of the website, content, and sitemap.

> **Note:** Before the following required steps, you must complete your copy of the mobile site. See Copying a website.

#### Implementing a mobile site

Do the following to implement a mobile site:

1. Go to **RiSE > Site Builder > Manage sitemaps**.
2. Select your copy of the **Member Mobile** site.
3. Edit the **Full Site** navigation item to add your main site's URL to the **Content or URL to Link to**.
4. Go to **RiSE > Page Builder > Manage content**, then select the content folder created for your copy of the mobile site.
5. From the **ContentAreas** folder, edit the following content records:

- **Social Networking Images** – Configure the **Social Networking** instance of the **Content Html** content item, and from the **<>HTML** tab, update the hrefs to link to your social media accounts or remove any links you do not want to appear.
- **Header Logo** – Configure the **Header Logo Span** instance of the **Content Html** content item and update the logo to your organization's logo.
- **Footer Copyright** – Configure the **Footer Copyright** instance of the **Content Html** content item, and update the content and link for your organization.

### Tips and reminders

- **Trim content** – For easier reading on small screens, and to decrease page load time, keep content simple.
- **Automatic redirect** – Consider adding some JavaScript to redirect users automatically to the mobile site when they try to access your full site on mobile devices.
- **Add favicon** – Update the favicon used for your mobile site, **apple-touch-icon**, located by default in **C:\Program Files (x86)\ASI\iMIS\Net**.
- **Easy Edit limits** – When you access the mobile site, Easy Edit is only available when you access the website from a browser with a width greater than 700 pixels.

## Styling your website's primary navigation

If you customize your website with a new look and feel, you will want to restyle the primary navigation to match the rest of the site. To customize the look of the navigation, you must be using iMIS 15.2 or later along with an UltraWave-derivative theme such as **Aspen**, **Austin**, or **Birch**. In iMIS, the primary navigation bar is built with Telerik RadControls; providing powerful tools for creating dynamic menu systems.

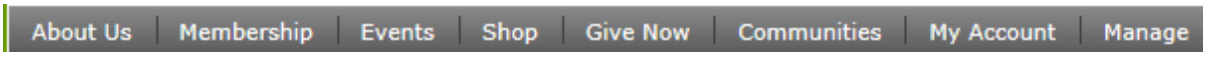
You can change your navigation menu's style by:

- Choosing an out-of-the-box skin provided by Telerik
- Customizing the font or color of an existing Telerik skin using Telerik's Visual Style Builder
- Styling your menu with CSS instead of using the Telerik tools

### What is PageNavR?

**PageNavR** is a control that iMIS uses to display a website's primary navigation. The navigation bar automatically populates with each top-level navigation item, and each sub-item displays in a drop-down list that can expand to multiple levels. **PageNavR** wraps around a Telerik RadMenu control, so all **PageNavR** styles are controlled by Telerik's base styles.

Click to view image




### What is a .skin file?

Skin files allow you to override default control behaviors in a theme-dependent way. If you set a property for a control in one theme's skin file, it will not affect how the control displays in other theme's skin files.

Consider this section of the **Aspen.skin** file in **App_Themes/Aspen**:

```
<asi:PageNavR runat="server" Skin="Aspen" EnableEmbeddedSkins="false"
    EnableRootItemScroll="false" Flow="Horizontal"
    DefaultGroupSettings_Flow="Vertical" DefaultGroupSettings_OffsetX="0"
    Width="100%"/>
```

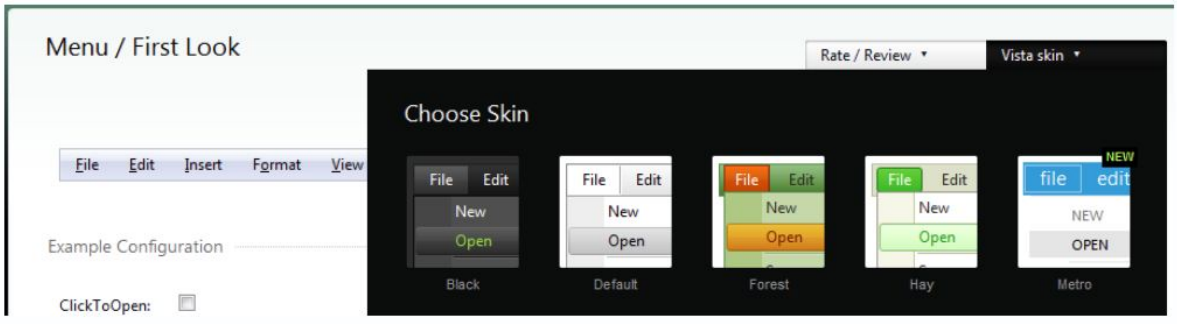
These are just a few of the **PageNavR** properties available for the control in the skin file. The two properties which affect the navigation bar's style are **Skin** and **EnableEmbeddedSkins**.

The **EnableEmbeddedSkins** property determines whether Telerik embedded skins should be loaded as the default. If you are creating your own custom skin, you must set this property to `"false"`.

**Styling the navigation using a skin provided by Telerik**

Do the following to style the navigation using a Telerik-provided skin:

1. Choose an existing Telerik skin at Telerik RadMenu Demo: First Look to use to style the navigation menu.
   Click to view image




2. Change the **Skin** property of the **PageNavR** control in the theme's skin file to the name of the skin you selected.

3. Change the **EnableEmbeddedSkins** property of the **PageNavR** control to "true". The navigation bar's styling will change to that of the Telerik skin you selected.
   For more information, see MSDN's guide to ASP.NET Themes and Skins.

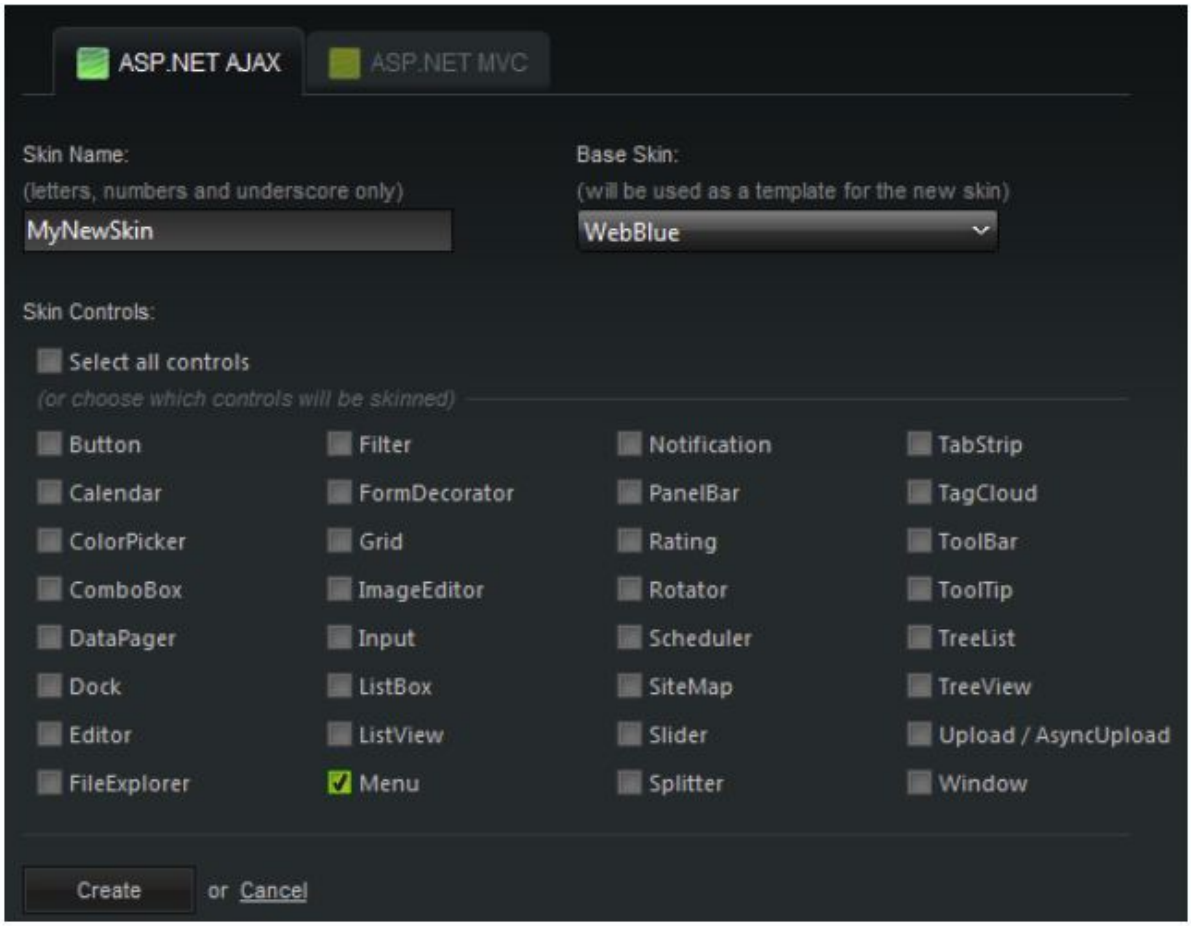
   **Styling the navigation by customizing an existing Telerik skin using Visual Style Builder**

   If you want to customize the colors or font for a particular Telerik skin, you can use Telerik's Visual Style Builder:

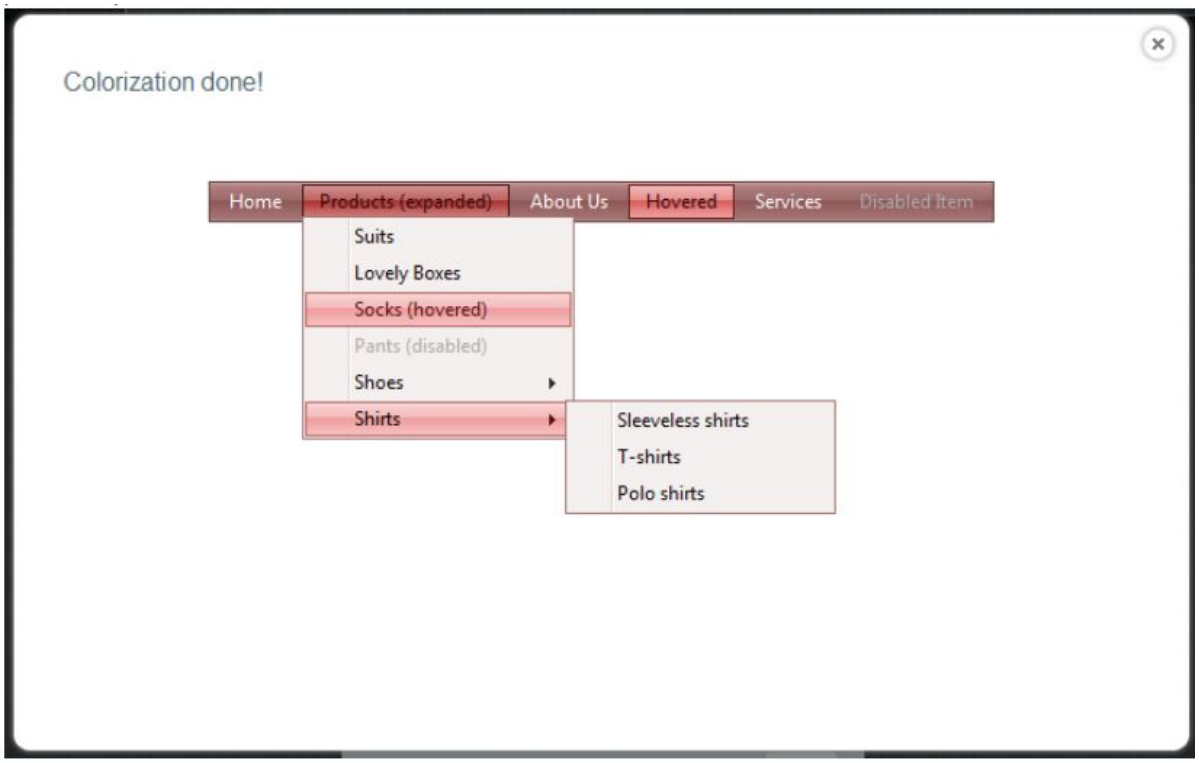
1. Open the Telerik Visual Style Builder and select **New Skin**.

   > **Note:** The Visual Style Builder is in beta. For best results, use Internet Explorer as it is not fully functional in any other browser.

2. Name your new skin, select your base skin, and check the **Menu** checkbox.
3. Click **Create**. Visual Style Builder will open on the **Colorize** tab.
   Click to view image




4. Select your preferred color for the menu. You can fine-tune the hue and saturation of the color on the **Shift colors** tab in the color window that is open.
5. Click **Save** to preview your new skin. If you are satisfied with the preview, you can download the generated images and CSS and skip to step 10.
   Click to view image




6. For additional customizing, click the **Fine-tune** tab of the Style Builder.

> **Note:** The fine-tune functionality can be unpredictable. Save frequently so that if you do not like the way a change turns out, you can click **load last save** to undo it.

7. Begin with any universal changes you would like to make, such as changing the font on the navigation nodes. Click **Main items** to make changes to the font on the main navigation node.
8. Each time you make a change the example dynamically responds. Each of the blue items opens a different set of configuration options.
   Click to view image



9. When you are finished, click **Save** and then **Download** to get the necessary code and images.
10. Copy the unzipped files to your theme's folder. Open the .skin file and set **EnableEmbeddedSkins** to "false" and **Skin** to the name of your new skin.
    For more information and a video tutorial, see Telerik's Visual Style Builder Overview.

**Styling the navigation using CSS**

If you do not like the Telerik-provided skins, you can create your own image-free styling using CSS with the aid of your browser's developer tool. If you choose to work manually, you might find it helpful to start with a working skin, and adjust to suit your needs.

1. Rename all of the base-level selectors in your working skin file to **RadMenu_[*Your theme name*]**.
2. Use your browser's developer tools to help you figure out how to modify the CSS to get the desired result.
3. In your theme's skin file set **EnableEmbeddedSkins** to "false" and **Skin** to the name of your skin.

**Helpful Links**

Here are some links that may be helpful to you while theming your website:

- w3schools.com: CSS Tutorial
- Creating a unique homepage with CSS and Javascript – includes a very helpful video if you're unfamiliar with browser developer tools
- ASP.NET Themes and Skins
- Telerik RadControl Demos - RadMenu
- Telerik Visual Style Builder
- Telerik Visual Style Builder Overview

## Creating custom themes and master pages

You are not restricted to modifying our out-of-the-box master pages and themes. You can create your own if you need to have greater creative control over the design. This section covers the basic pieces required to build your own master page and theme.

**Making your new theme and master page available in RiSE**

1. Add a new theme folder to the **App_Themes** folder, located by default in **C:\Program Files (x86)\ASI\iMIS\Net\App_Themes**. Refer to Creating a custom theme for more

information about the files you will need to add to this folder, as well as other information about custom themes.

2. Add the new master page to the **MasterPages** folder, located by default in **C:\Program Files (x86)\ASI\iMIS\Net\Templates\MasterPages**. Refer to Creating a custom master page for more information about the required elements you will need in your custom master page.
   After you add the theme folder and master page to these locations, you can select both on the **Look and Feel** tab when editing a website in RiSE.

### Creating a custom theme

Themes control many of the aesthetic elements of your website, such as fonts and colors. To create a personalized theme for iMIS, copy an out-of-the-box theme and customize it to fit your organization's needs. If you want greater creative control over the look and feel of your website, you can build a new theme.

For more information, refer to Creating a custom theme.

### Creating a custom master page

Whenever possible, we highly recommend using one of the out-of-the-box master pages we provide for your website. Doing so helps us to better support your site and it will make upgrading your site simpler. However, if you need to create a custom master page, you have a choice: either start with a copy of an existing master page and adjust or remove items as needed; or start with a new page and build it piece-by-piece to add the required items. Either way, start by adding your **.master** file to the **~/Templates/MasterPages** folder so that it shows up in the master page drop-down list in Manage websites.

This section describes the required and optional portions of a custom master page.

#### Required master page elements

The following section describes the master page elements that are required for your website to display correctly. To see an example of how to fully implement each of these, search of the relevant IDs (or other provided strings) within one of the sample master pages located in the **~/Templates/MasterPages** folder.

#### Basic structure

The following is an example of the basic structure of a custom master page:

```
<%@ Master Language="C#" Inherits="Asi.Web.UI.UltraWaveMasterPageBase" %>
<!-- import and register statements go here -->

<script language="C#" runat="server">
   <!-- C# scripts go here -->
</script>
<html id="MainHtml">
   <head id="Head1" runat="server">
      <!-- head content goes here -->
   </head>
   <body id="MainBody">
      <form id="TemplateForm" method="post" runat="server">
         <header>
            <!-- header content goes here -->
         </header>
         <div id=”bd”>
            <!-- content goes here -->
         </div>
         <footer>
            <!-- footer content goes here -->
         </footer>
      </form>
  </body>
</html>
```

Classes

All UltraWave-based master pages must inherit from **UltraWaveMasterPageBase** by including the following line at the top of the **.master** file:

```
<%@ Master Language="C#" Inherits="Asi.Web.UI.UltraWaveMasterPageBase" %>
```

Content placeholders

Content placeholders define where certain types of content should go in the page. They are used to define header metadata, the main content area, and the JavaScript that loads at the bottom of the page. The following content placeholders are required for all master pages:

- **TemplateHead** – Inserts iMIS metadata into the page. Include this placeholder within the `<head>` tags of your master page.

```
<asp:ContentPlaceHolder ID="TemplateHead" runat="server" />
```

- **SideBarPlaceHolder** – Most often displays on the left- or right-hand side of the page and is used to display some controls such as the community navigation control. It also may contain the sub-navigation control if you choose to implement it (see Displaying left navigation).

```
<asp:ContentPlaceHolder ID="SideBarPlaceHolder" runat="server">
```

- **TemplateUserMesages** – Displays error, warning, information, or success messages at the top of the page. Make sure to add this within an update panel so that the messages properly display on post back.

```
<asp:ContentPlaceHolder ID="TemplateUserMessages" runat="server">
```

Click to view image




- **TemplateBody** -Displays the main content of the page.

```
<asp:ContentPlaceHolder ID="TemplateBody" runat="server">
```

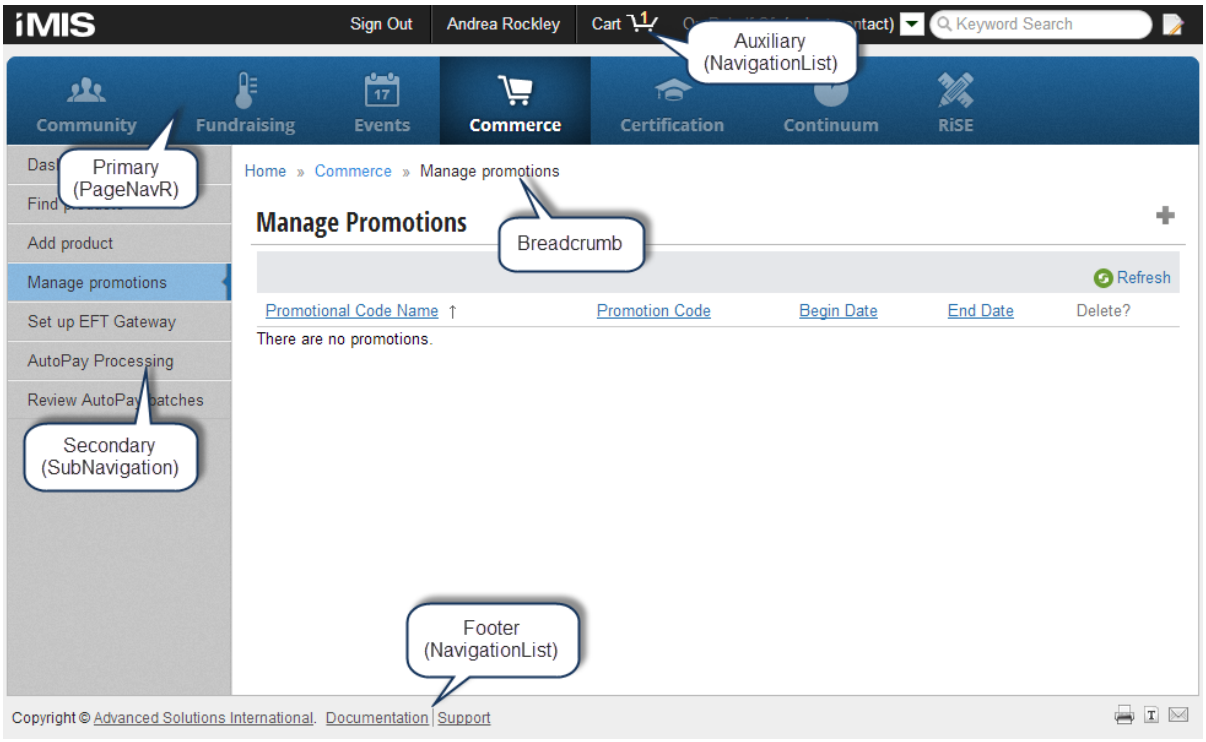
- **TemplateScripts** – Loads JavaScript from **Page.RegisterStartupScript**.

```
<asp:contentplaceholder id ="TemplateScripts" run-
at="server"></asp:contentplaceholder>
```

Navigation

Four different navigation controls are available that can be used to display different styles of navigation. Choose the navigation controls that best fit your needs.

Click to view image




- **NavigationList** – Displays a simple list-style navigation that is limited to a single level. In the iMIS master pages, it is used to display the Auxiliary and Footer navigation.

```
<asiweb:NavigationList ID="Auxiliary" runat="server" NavigationPaneCode="4"
AnonymousOnly="<%# IsAnonymous %>"/>
```

- **NavigationPaneCode** identifies the navigation area to display; in this example it is the auxiliary navigation. This code is defined in Navigation Areas.
- **AnonymousOnly** works in conjunction with the **IsAnonymous** property in the scripts section to determine when to hide anonymous-only links.
- **PageNavR** – Displays the primary navigation. A register statement is required at the top of your master page from this control.
- The register statement:

```
<%@ Register TagPrefix="asi" TagName="PageNavR"
 Src="~/AsiCommon/Controls/Navigation/PageNavR.ascx" %>
```

- The control:

```
<asi:PageNavR ID="Primary" runat="server" NavigationPaneCode="1"
 StartFromRootNode="true" SelectDefaultNode="true" />
```

- **NavigationPaneCode** – Currently only `"1"` is supported for this control.
- **StartFromRootNode** – Currently only `"true"` is supported for this control.
- **SelectDefaultNode** – Currently only `"true"` is supported for this control.
- **SubNavigation** – Displays second-level navigation. See Displaying left navigation.
- **Breadcrumb** – Displays the breadcrumb trail of the current page. This control hides dynamically if the website is not configured to display breadcrumbs.

```
<asiweb:SiteMapPath ID="BreadCrumb" runat="server"
 SiteMapProvider="AsiSiteMapProvider">
   <NodeTemplate>
      <asp:HyperLink ID="NodeLink" runat="server" NavigateUrl='<%# Eval("Url")
 %>' Text='<%# Eval("NavigationHierarchy.Navigation.BreadCrumbName") %>'
 CssClass="BreadCrumbLink"></asp:HyperLink>
   </NodeTemplate>
   <CurrentNodeTemplate>
      <asp:Label ID="CurrentNodeLabel" runat="server" Text='<%#
 Eval("NavigationHierarchy.Navigation.BreadCrumbName") %>'></asp:Label>
   </CurrentNodeTemplate>
</asiweb:SiteMapPath>
```

- **NodeTemplate** – The template used to display links in the breadcrumb.
- **CurrentNodeTemplate** - The template used to display the navigation name of the current page.

## Other Required Controls

- **RadScriptManager** – Combines multiple Telerik scripts into a single HTTP request.

```
<telerik:RadScriptManager ID="ScriptManager1" runat="server" EnableCdn="false"
 EnablePageMethods="true" EnablePartialRendering="true"
 EnableScriptGlobalization="true" EnableHistory="true"
 EnableSecureHistoryState="false" AsyncPostBackTimeout="3600" />
```

- **UpdateProgress** – Displays a visual indicator of loading progress.

```
<asp:UpdateProgress ID="TemplateFillLoadingPanel" runat="server" Visible="true">
   <ProgressTemplate>
      <div class="NotPrinted ProgressDiv" id="FillProgressDiv">
         Loading
         <asp:Image ID="ProgressImage2" runat="server"
 OnLoad="ProgressImage2Load" AlternateText="Loading" />
      </div>
   </ProgressTemplate>
</asp:UpdateProgress>
```

**Note:** In addition, define the **ProgressImage2Load** method in your master page's C# scripts, as in the following:

```
protected void ProgressImage2Load(object sender, EventArgs e)
   {
      Image image = sender as Image;
      if (image != null)
         image.ImageUrl = Asi.Web.Utilities.GetTildeExpansion() +
 "/images/ImageLibrary/loading.gif";
   }
```

- **Sign In/Sign Out Link** – Displays a link to allow the user to sign in or out of the website.

```
<asp:LoginStatus ID="LoginStatus1" runat="server" LoginText="Sign In"
 LogoutText="Sign Out" AccessKey="I" OnLoggedOut="LoginStatus1_OnLoggedOut"
 OnPreRender="LoginStatus1_OnPreRender" />
```

**Note:** In addition, define the methods for **OnLoggedOut** and **OnPreRender**, as in the following:

```
protected void LoginStatus1_OnLoggedOut(object sender, EventArgs e)
   {
      Asi.Web.Security.RevokeAppContext(HttpContext.Current);
      if (Page is Asi.Web.UI.DisplayPageBase &&
 ((Asi.Web.UI.DisplayPageBase)Page).iMISWebsite != null)
         Response.Redirect(((Asi.We-
b.UI.DisplayPageBase)Page).iMISWebsite.WebsiteLink,
 true);
      else
         Response.Redirect(FormsAuthentication.LoginUrl, true);
   }
```

```
protected void LoginStatus1_OnPreRender(object sender, EventArgs e)
   {
      // Make Sure that Logoff and Log On Text is set properly
      if (!AppContext.CurrentIdentity.IsAuthenticated)
         LoginStatus1.LogoutText = ResourceManager.GetPhrase("Security.SignOut",
 "Sign Out");
   }
```

- **Universal Search field** – Allows the user to search the entire website for content, a product, an event, and other indexed items.

```
<asiweb:SimpleSearchField ID="SearchField" runat="server"
 AdvancedLinkVisible="false" PromptText="Keyword Search" />
```

- **PromptText** – The text that appears in the search box before the user selects the box
- **AdvancedLinkVisible** – Currently only `"false"` is supported for this control.
- **Easy Edit toggle** – Displays a button to allow staff and Content Authority Group members to turn Easy Edit on and off.

```
<asp:ContentPlaceHolder ID="AuxiliaryNavigationSupplementalContent" run-
at="server" />
```

- **Keep Alive** – Increases performance by helping the client keep a single session running.

```
<asp:Image ID="KeepAliveTarget" runat="server"
 ImageUrl="~/AsiCommon/Images/3x3.gif" AlternateText=" " />
<asiweb:KeepAliveExtender ID="KeepAliveControl" runat="server"
 TargetControlID="KeepAliveTarget" />
```

- **On Behalf Of** – Displays the visual control and indicator that allows users with On Behalf Of rights to set or clear the On Behalf Of target.

```
<asi:ProxyPanel id="panProxy" runat="server"
 TargetContactProfileShortcut="~/Party.aspx" ></asi:ProxyPanel>
```

- **TargetContactProfileShortcut** – The shortcut or URL for the link on the contact's name. If not included, this property defaults to **~/Party.aspx**.
- **Button Bar** – Displays action buttons (for example, **save**, **submit**, or **cancel**) when there is a form on the page.

```
<asiweb:CommandButtonBar ID="ButtonBar" runat="server" Tar-
getControlID="ContentDiv" />
```

Also works in conjunction with a placeholder, which can be used to add additional content next to the buttons.

```
<asp:ContentPlaceHolder ID="TemplateButtonBar" runat="server">
```

Optional master page elements

The following section describes some of the optional master page elements. To see an example of how to fully implement each of these, search the relevant IDs (or other

provided strings) within one of the sample master pages located in the **~/Templates/MasterPages** folder.

Accessibility controls

Add the following optional controls to increase the accessibility of your website:

- **Skip Links** – Helps screen readers and tab-only users skip over repetitive content, such as the header.

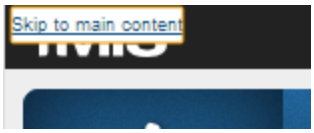
```
<a href="#contentstart" class="screen-reader-text show-on-focus">
Skip to main content</a>
```

- **href** – Make sure this links to the ID of your main content area or to an anchor at the top of the content area. For example:

```
<a id="contentstart" tabindex="-1"></a>
```

In our example master pages, we also include a skip link around the breadcrumb. If you choose to do this, be sure to hide the link dynamically if the breadcrumb is hidden.

Click to view image




- **Maintain Focus on Post Back** – Sometimes when the page refreshes, screen readers and tab users lose their focus on the page and have to navigate back to their desired location. By including an optional control to remember their last-focused element, you can fix this behavior.

```
<input type="hidden" id="lastClickedElementId" runat="server"/>
```

Content Template Areas

Content Template Areas are a very powerful tool for your master page because they allow you to insert RiSE-built content into your master page wherever you need it. The content can be controlled separately in each website, making it useful for logos, links to your organization's social networking pages, and footer copyright statements.

1. To add one or more Content Template Areas, first declare them in an **EnsureContentAreas()** method in your master page.

```
override protected void EnsureContentAreas()
{
   PageContentAreas = new List<ContentTemplateArea>(
      new[] { HeaderLogo });
}
```

   Include the IDs of all content areas for your website in a comma-separated list within the array.

2. Next, for each content area you want to add, place a **ContentTemplateArea** control in your master page where you want the content to display.

```
<asiweb:ContentTemplateArea ID="HeaderLogo" Tem-
plateAreaName="HeaderLogo"
 HonorContentRecordLayout="true" runat="server" />
```

- **TemplateAreaName** – The name used to identify this content area.
- **HonorContentRecordLayout** – Determines whether to include the grid layout used in your content definition.

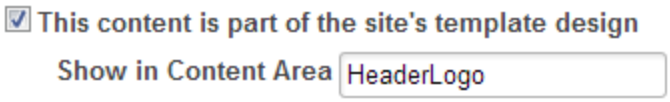
3. Define the content to be displayed within the **ContentTemplateArea**:

a. In your website definition, you should have a defined location for all of your template content (for example, go to **Site Builder > Manage websites**, select a website, go to **Look and Feel > Folder containing template content**). Create your content within this folder (go to **Page Builder > Manage content**).

b. In the **Properties** tab of the content record, enable **This content is part of the site's template design**.

c. Enter the same name you used for the **ContentTemplateArea** control's **TemplateAreaName**.

   Click to view image



Homepage or interior content areas

You can also define content areas that display only on the home page or only on interior pages.

1. In **EnsureContentAreas()** identify the content areas as either **HomepageContentAreas** or **InteriorContentAreas**.

```
override protected void EnsureContentAreas()
{
   HomepageContentAreas = new List<ContentTemplateArea>(
      new[] { HomepageContentArea1 });
   InteriorContentAreas = new List<ContentTemplateArea>(
      new[] { InteriorContentArea1 });
}
```

2. Include the **ContentTemplateArea** as in normal content areas.

```
<asiweb:ContentTemplateArea ID="HomepageContentArea1"
 TemplateAreaName="HomepageContentArea1" HonorContentRecordLayout="true"
 runat="server" />
```

3. Also include a required **HomePageContent** panel or **InteriorPageContent** panel on the master page.

```
<asp:Panel ID="HomePageContent" runat="server" Visible="false" />
<asp:Panel ID="InteriorPageContent" runat="server" Visible="false" />
```

4. Define the content to be displayed with the **ContentTemplateArea** (see Content Template Areas).

Properties and Methods

You may also want to include some C# properties and methods in your master page. These should go in the `<script language="C#" runat="server"></script>` at the top of your master page. You might want to include the following:

- **CartItemCount** (property) – Defines a template used to display a cart count indicator in the auxiliary or footer navigation. Replaces **[CartItemCount]** in the navigation text (see

Modifying dynamic navigation items).

```
/// <summary>
/// Return the count of items in the Cart
/// </summary>
public string CartItemCount
{
get
{
return GetCartItemCount();
}
}
```

- **OverrideLinkText** (property) – Defines text that replaces **[OverrideLinkText]** in navigation text. It is typically used to display the logged-in user's name (see Modifying dynamic navigation items).
  For example, instead of displaying the Full Name of the logged in user, you may want to display only their First Name. To make this change, edit the ContactDetail property to replace all instances of FullName with FirstName. The result should look like this:

```
/// <summary>
 /// Logged in contact
 /// </summary>
 public string OverrideLinkText
 {
     get
     {
        return Asi.Business.Contact.Contact.GetCachedFirstName(AppCon-
text.CurrentIdentity.UserKey, AppCon-
text.CurrentContext.StatefulBusinessContainer);
     }
 }
```

> **Note:** The GetCachedFirstName method is used, rather than the default GetCachedFullName.

- **IsAnonymous** – Used in conjunction with **NavigationListControl**, this determines who should be allowed to see anonymous-only links.

Other optional items

- **PageTasks** – Displays buttons to allow users to email the page to a friend, print the current page, or set the "Text Only" mode.

```
<asp:Panel ID="PageTasksPanel" runat="server" CssClass="PageTasksPanel
NotPrinted">
   <asp:ContentPlaceHolder ID="TemplatePageTasks" run-
at="server"></asp:ContentPlaceHolder>
</asp:Panel>
```

You can selectively turn off any of these buttons by including one or more of the following statements in the overridden **CreateChildControls()** method:

```
ShowTextOnly = false;
ShowEmailAFriend = false;
ShowPrintThisPage = false;
```

- **Dynamic Content Items** – You can also include dynamic content items in your master page. Simply register them and include them as you would any other control.

## Controlling sitemap behavior

This section explains sitemap behavior, including:

- Content records, content items, and shortcuts used for searching.
- How to modify the **[OverrideLinkText]** and **[CartItemCount]** dynamic navigation items.
- Profile pages linked from the **Member** site's Directory, which uses an ASPX web page to redirect users to a navigation item based on a set of criteria.

### How search works with navigation

Three elements make search work in the Quick Start Sites:

- **Search content records**
  The Quick Start Sites use search content records that are dynamically populated with an initial search result set based on a URL parameter value. These content records contain the **Common Search** content item and are located within **@/iCore** folders.
- **The pages that display the initial search results**
  The **Shop** and **Events** navigation items are linked to the **Search** content records. These navigation items have a unique value for the **InitialArea** URL parameter, which defines the result set generated when the pages are first displayed (for example, products or events).
- The page displayed when a user clicks a search result link are based on:
- **Shortcuts** – The shortcuts defined from **Site Builder > Manage shortcuts**. The following shortcuts display search result links in the Quick Start Sites:
- **ItemDetail** – The **ItemDetail** shortcut displays the **Item_Detail** content record, which uses **Product Display** to display the item selected.
- **GiftDetail** – The **GiftDetail** shortcut displays the **Gift_Detail** content record, which uses **Donation Creator** to display donation pages selected from search results.
- **Redirectors** – Users are redirected to different shortcuts depending on permissions:
- **Event.aspx**
- The **EventDetail** shortcut displays the **Event_Display** content record, which uses **Event Display** and **Event Program Display** to display event pages selected from search results.
- The **EventDashboard** shortcut displays the **Event_Dashboard** content record, which uses **Content Collection Organizer** to display the Event Console for the event selected from search results.
- **Party.aspx**
- **People** – System Administrators and Staff users with Contacts level 1 permissions viewing any user's account are redirected the **Full Account** shortcut:
- Public users viewing their own accounts are redirected to the **MyAccount** shortcut.
- Public users viewing another contact's accounts are redirected to the **Profile** shortcut.
- **Organizations** – System Administrators and Staff users with Contacts level 1 permissions viewing any company, and Company Administrators viewing their own company will be

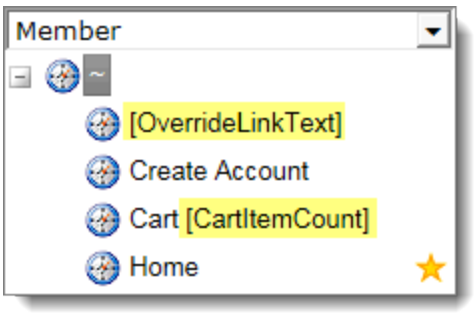
redirected to the **OrganizationAccount** shortcut.

- Public users viewing any company are redirected to the **Organization** shortcut.

**Modifying dynamic navigation items**

The default sitemaps include variables that dynamically generate the text displayed for two navigation items. **[OverrideLinkText]** displays the Full Name of the logged in user by default. **[CartItemCount]** displays the number of items a user has added to the Cart.

Click to view image




If you want to add new navigation items that use these variables, or if you want to modify the existing ones, consider the following guidelines:

- **Navigation areas and master pages** – The variables only work in the **Auxiliary** and **Footer** navigation areas of websites using one of the Quick Start Site master pages (or copies of these files) or **1700.master**. To specify a navigation area, edit a navigation item and in the **Options** section, select **Auxiliary**, **Footer**, or both from the **Show in the following navigation areas** options.
- **[OverrideLinkText]** – You can use this variable on its own or with other text. For example, if you only enter the variable, then only the logged in user's name is displayeds as a link. However, if you enter **[OverrideLinkText]'s Profile**, and Bob Smith logs in, then **Bob Smith's Profile** is displayed as a link.
- **[CartItemCount]** – You can use this variable on its own or with other text, but we recommend that you only use it with other text. Otherwise, when no items are in the cart, nothing is displayed for this navigation item.

Changing the data displayed for [OverrideLinkText]

The variable **[OverrideLinkText]** can be changed to display a different value. For example, you may wish to display only the user's first name instead of their full name. To do so, you will need to edit the OverrideLinkText property in your custom master page. See Optional master page elements for more information.

> **Note:** If you want to customize one of the out-of-the-box themes, we recommend that you start with a copy, so that your changes are preserved when you upgrade.

### Account and profile pages in the Directory

When users select a result after searching the **Member** site's Directory, or when they navigate to the account pages, the content record that displays depends on the user's permissions. The rules that determine where a user is redirected are defined in the **Party.aspx** file, located by default in **C:\Program Files (x86)\ASI\iMIS\Net**.

You can modify the information displayed on the account and profile pages by editing content records from **Page Builder > Manage content**.

> **Note:** In the **Member Mobile** site, only simple profile pages are shown for member and organization accounts to restrict the amount of information displayed on small screens.

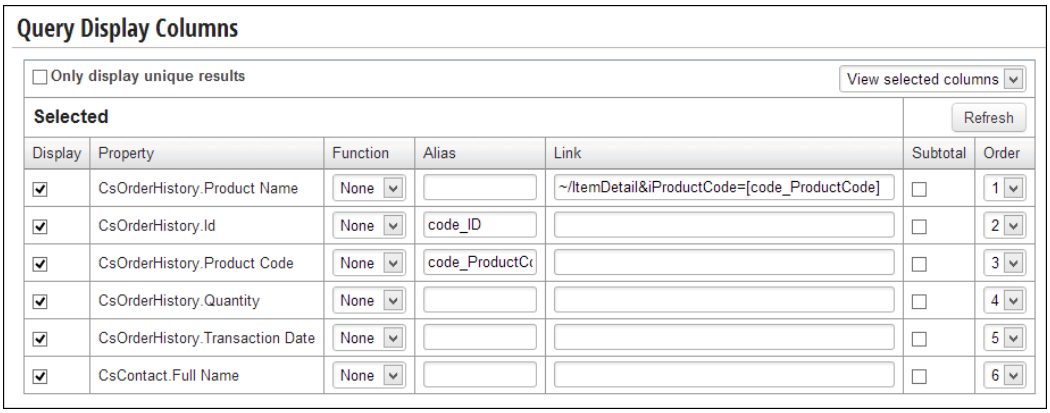
### Redirector Pages

Redirector pages can be used to dynamically redirect a user to the correct page based on certain criteria. iMIS offers a redirector page out-of-the-box to help you easily create links in HTML or in IQA queries.

#### IQA Example

The link on the product name in this IQA query will direct to the correct product item detail page.

Click to view image




Party.aspx

Party.aspx directs users to the correct account pages depending on their permissions. If no target Contact ID is provided the user will be directed to their own account page.

For viewing people

System Administrators and Staff users with Contacts level 1 permissions viewing any user's account will be redirected the **FullAccount** shortcut.

- Public users viewing their own accounts will be redirected to the **MyAccount** shortcut.
- Public users viewing another contact's accounts will be redirected to the **Profile** shortcut.

For viewing companies

System Administrators and Staff users with Contacts level 1 permissions viewing any company, and Company Administrators viewing their own company will be redirected to the **OrganizationAccount** shortcut.

Public users viewing any company will be redirected to the **Organization** shortcut.

Click to view table

| Page description | Users directed to the page | Content record: @/iCore/Contacts/* | Shortcut |
|---|---|---|---|
| Detailed page for staff to manage member | • System Administrators | **ContactLayouts/Account_Page_Staff** | **FullAccount** |

| Page description | Users directed to the page | Content record: @/iCore/Contacts/* | Shortcut |
|---|---|---|---|
| accounts | • Staff with an authorization level of 1 or higher in Customers | | |
| Detailed page for member to manage own account | Contacts selecting their own record | **ContactLayouts/AccountPage** | **MyAccount** |
| Detailed Organization account page | • System Administrators<br>• Staff<br>• Organizations selecting their own record | **OrganizationLayouts/Account_Page** | **OrganizationAccount** |
| Simple (non-editable) Contact profile page | Users who do not have permission to edit the account | **ContactLayouts/Profile** | **Profile** |
| Simple (non-editable) Organization | Users who do not have permission to edit the | **OrganizationLayouts/Organization_Profile** | **Organization** |

| Page description | Users directed to the page | Content record: @/iCore/Contacts/* | Shortcut |
|---|---|---|---|
| profile page | account | | |

## Tracking your site with Google Analytics

Google Analytics tracks and collects important data on how visitors interact with a website. Google Analytics provides reports on the data collected allowing you to assess whether your website is meeting its goals. This tracking is accomplished by adding a Google Analytics script to the website. A new parameter was added to the **Manage websites** window if you want to use Google Analytics to track data on an iMIS website.

Do the following to track your site with Google analytics:

1. Create a Google Analytics account: google.com/analytics
2. Configure the account. Google Analytics will provide the code for you to paste in the **Manage websites** window.
3. Add the script to your iMIS website:

a. Go to **RiSE > Site Builder > Manage websites**.
b. Select the website to which you want to add a Google Analytics script.
c. (**Properties** tab) Expand the **Advanced** section and paste the entire script, including the tags, in the **Google Analytics script** field.
d. Click **Save**.
e. Publish the website.

4. Visit your Google Analytics account to review the data collected.

## Synchronizing content on multiple servers

If you have more than one server hosting the same website, take steps to synchronize all servers that host the website. The following are issues to address:

- **Theme files** – If you modify the website's CSS or master page, or if you apply a different theme, copy the changed files to all other servers.
- **Uploaded images** – Copy your folder for uploaded images to all other servers, either by direct FTP or by file copy.

> **Note:** This is not necessary for ContentFile Content Item attached files, which are automatically copied to remote servers when published.

- **Hard-coded image paths** – If you use different virtual directories on any of your servers, you need to put a variable in any hard-coded image paths to make them publish correctly on all servers. When including images in **Content Html**, modify the default **Image URL** and replace the server name and virtual directory with **[Root]**. For example, if the **Image URL** is **…/iMIS/images/mypic.jpg**, change it to **[Root]/images/mypic.jpg**.

  > **Note:** When you edit **Content Html**, the image appears as a missing-image red X, but it displays correctly when published.

- **Navigation area properties** – If you modify navigation area properties (using the Easy Edit link in the Navigation Areas section of the Website Edit screen) you might need to reset the server's worker process to get it to pick up the changes.
- **Publishing servers** – When publishing content, iMIS will not consider the content successfully published until all relevant publishing servers have finished publishing it without error. That means that if one of the publishing services corresponding to any of the publishing servers listed in **RiSE > Maintenance > Publishing servers** is stopped or otherwise inactive, content records will remain in the **PublishPending** state until the publishing service is started or the entry in **Publishing servers** is removed and the content is republished.

  > **Note:** Images used in content records such as Content HTML, are automatically regenerated into the **/images** folder on all web servers when published.

### Improving performance for remote servers

The Easy Edit feature of your iMIS content management website might be sluggish on some of your external web servers due to latency in communicating with the iMIS database. For example, it is common for your public-facing web servers to be hosted at a different data center than your iMIS database. You can improve performance by setting up a mirror of the website on your iMIS application server, then directing your frequent Easy Edit users to the appserver's URL for the website instead of using the public URL.

> **Note:** If your Easy Edit users are working at computers that are outside your organization's firewall, they will need VPN access (or access through a terminal server, for example) to connect to the appserver-hosted version of the website.

Changes to the website's content records and navigation items that are made on any server that hosts the website are automatically picked up by every other server when you publish the changes. However, images that are uploaded during Easy Edit sessions must be manually copied to all other servers. Additionally, changes that your web admins make to the site's CSS, master page, and other aspects of the site's template on one server must also be manually copied to all other servers.

### Improving Easy Edit performance

The following procedure assumes that you already have an external iMIS content management website on which your Easy Edit users are experiencing slow performance. You will be changing the website's definition to also host the website on your application server, then advising your Easy Edit users to use the new appserver-hosted website for their Easy Edit sessions:

1. Modify the website's definition to specify that it be hosted by your iMIS application server as well.
   Click for details
   a. Go to **RiSE > Site Builder > Manage websites**.
   b. Select the website you want to modify.
   c. Click **Edit**.
   d. In the **URL(s) pointing to the IIS website root** field, enter a comma-delimited list of URLs that point to the root of the iMIS application on your iMIS appserver and to the root of the iMIS content management application that you installed on each external web server. For example, if you already had two external web servers defined for this website, the list should look similar to the following when you have added the URL that points to your iMIS appserver:

```
http://www.mypublicdomain1.org/wcm/,http://www.mypublicdomain2.org/wcm/,http://www.myiMISappserver.com/iMIS/
```

e. If using SSL, add the secure addresses to the Secure URL(s) pointing to the IIS website root field in the same order as above.

> **Note:** Restart IIS whenever you change the **Secure URL(s) pointing to the IIS website root** setting. Note that **localhost** is not a valid **Secure URL**.

f. Click **Save** to save your changes.
g. Click **Cancel**.
h. From the toolbar, click **Publish**. Select **Publish children as well?** to publish all of the website's navigation items to the new instance of this website on the iMIS application server.
i. Click **OK**. Note that the website's content records will not be visible on this new instance until a later step. It may take up to 15 minutes for the public and internal sites to reflect the updated navigation.
j. Click **Close**.

2. Modify the definition of all content folders used by this website to also publish their content records to the new instance of this website on the iMIS application server. This will usually be only the website's root content folder (the one with the same name as the website itself), but your organization might also have some additional content folders that are used for content shared among several different websites.
   Click for details

a. Go to **RiSE > Page Builder > Manage content**.
b. Select the content folder you want to configure.
c. Click **Edit**.
d. From the **Publish on Servers** drop-down:

- If the current value is **Inherit**, do not change the value.
- If the value is **Custom**, then leave all currently selected checkboxes and also select the checkbox for the publishing server code used by your iMIS application server.

e. Click **Save** to save your changes.
f. Click **Cancel**.
g. From the toolbar, select **Publish**. Select **Publish All Items** to include all of the folder's content records.
h. Click **OK**.
i. Click **Close**. Repeat the steps for each content folder used by the website.

3. Make sure the website's template files exist on the public iMIS content management server, the appserver, and the internal iMIS content management server, if applicable. If the files are missing from any of the servers, manually copy the files to the corresponding locations.
4. Visit your public iMIS content management website and the appserver's website to verify that your changes are successful.
5. Advise your frequent Easy Edit users to visit the URL for the iMIS appserver-hosted instance of the website and avoid using the public-facing URLs.

### Complying with the EU's Electronic Privacy Directive

To comply with the EU Directive on Privacy and Electronic Communications, iMIS has added support for your organization to display a pop-up notification informing visitors that cookies are used on your site. This popup also includes a link to a longer sample privacy policy we have provided. You can find more information about this law on the ICO web-site.

Setting up cookie notifications requires that you edit your master page, review (and modify as needed) the privacy policy provided, and add a JavaScript file to iMIS.

Do the following to display cookie notification popups:

1. Edit the master page of your website (by default located in **C:\Program Files (x86)\ASI\iMIS\Net\Templates\MasterPages**) to add the following items:

a. Just under the `<div id="masterWrapper">`, add the following divs:

> **Note:** You can edit this content to change the look and feel of the popup to match the design of your site.

```
<div id="EUCookieMessage" style="display: none;">
        <div id="EUCookiewarningBack" style='z-index:999;
position:absolute; width:100%;height:100%;background: rgb(0, 0, 0)
transparent;background: rgba(0, 0, 0, 0.6);
filter:progid:DXImageTransform.Microsoft.gradient(startColorstr=#99000000, endCo-
lorstr=#99000000);-ms-filter:
\"progid:DXImageTransform.Microsoft.gradient(startColorstr=#99000000,
```

```
endColorstr=#99000000)\'">
        <div id="EUCookiewarning"
 style-
='margin:19%;padding:10px;width:62%;height:20%;background:white;color:black'>
        <span id="EUCookiewarningtext"></span>
        <a href="#" class="close-notify">Continue</a>
        </div>
        </div>
        </div>
```

b. At the bottom of the master page, just before the line `<!-- Facebook API is loaded into here -->`, add the following JavaScript reference:

```
<script type="text/javascript" src-
c="AsiCommon/Scripts/EUCookieWarning.js"></script>
```

2. Review the sample privacy policy provided as a content record (**@/iCore/Privacy_Policy**) in **RiSE > Page Builder > Manage content**, and update it as needed for your organization.

> **Note:** If you need a privacy policy specific to your organization, copy the Privacy_Policy or create a new content record. Be sure to note the content folder where the content record is stored as you will need to reference it in the new JavaScript file (**EUCookieWarning.js**) shown in step 3.

3. Create a JavaScript file named **EUCookieWarning.js** containing the code below, and add it to the **Scripts** folder (by default located in **C:\Program Files (x86)\ASI\iMIS\Net\AsiCommon\Scripts**).

> **Note:** The displayNotification function in this file contains the content of the popup notification displayed to users the first time they visit a page in your website. Be sure to update the privacy policy link in this message to point to the content record you want to display for this purpose. You can also edit the rest of the content for the needs of your organization.

```
function getCookie(c_name)
{
var i,x,y,ARRcookies=document.cookie.split(";");
for (i=0;i<ARRcookies.length;i++)
 {
 x=ARRcookies[i].substr(0,ARRcookies[i].indexOf("="));
 y=ARRcookies[i].substr(ARRcookies[i].indexOf("=")+1);
 x=x.replace(/^\s+|\s+$/g,"");
 if (x==c_name)
  {
  return unescape(y);
  }
 }
}

function displayNotification()
{
if (typeof jQuery('#EUCookieMessage' != 'undefined'))
{
      jQuery('#EUCookieMessage').fadeIn("slow");
      if (typeof jQuery('##EUCookiewarning #EUCookiewarningtext' != 'undefined'))
      {
            jQuery("#EUCookiewarning #EUCookiewarningtext").append
("In order for this site to work correctly we need to store a small file - called a cookie -
on your computer.<br/>");
            jQuery("#EUCookiewarning #EUCookiewarningtext").append
("<br/>");
            jQuery("#EUCookiewarning #EUCookiewarningtext").append
("We use cookies to store information to make your visit to this site richer and to per-
sonalize information according<br/>");
            jQuery("#EUCookiewarning #EUCookiewarningtext").append
```

```
("to your interests. See our <a href=\"@/iCore/Privacy_Policy.aspx\"
 target=\"_blank\">privacy policy</a> for more information on what cookies are, how
we use them<br/>");
            jQuery("#EUCookiewarning #EUCookiewarningtext").append
("and how to change your preferences.<br/>");
            jQuery("#EUCookiewarning #EUCookiewarningtext").append
("<br/>");
            jQuery("#EUCookiewarning #EUCookiewarningtext").append
("By continuing to use this site you are consenting to our use of cookies.<br/>");
            jQuery("#EUCookiewarning #EUCookiewarningtext").append
("<br/>");
      }
      var closeBtn = jQuery('#EUCookieMessage a.close-notify');
      closeBtn.click(function() {
      setCookie("IMISEUCookieConfirm",null,3650);
      jQuery('#EUCookieMessage').fadeOut("slow");
      return false;
            });
      }
}

function setCookie(c_name,value,exdays)
{
var exdate=new Date();
exdate.setDate(exdate.getDate() + exdays);
var c_value=escape(value) + ((exdays==null) ? "" : "; expires="+exdate.toUTCString
());
document.cookie=c_name + "=" + c_value;
}

function checkCookie()
```

```
{
var cookieName="IMISEUCookieConfirm";
var cookieChk=getCookie(cookieName);
if ( typeof cookieChk === "undefined")
 {
 displayNotification();
 }
}

checkCookie();
```

## Responsive Web Design

**Austin_Responsive**, **Toronto_Responsive**, and **London_Responsive** are the first responsive themes available in iMIS. Websites that use these themes, such as the **Member Responsive** site, are responsive by default: the layout and appearance change based on the size of the device used to visit the site, so that the website looks good and is usable on any screen size.

The content in this section only applies to websites using a responsive theme in iMIS, whether it is the out-of-the-box **Austin_Responsive**, **Toronto_Responsive** or **London_Responsive** theme, a modified copy of them, or an original theme you have created to be responsive.

The topics that follow cover some general Responsive Web Design concepts and describe the elements in iMIS that are responsive or can be configured to be responsive as needed, including:

- **Responsive layouts** – iMIS content layouts define a grid structure for the body of a web page. They determine how many rows or columns each page will have. A responsive layout adjusts that structure fluidly based on the size of the device or browser used to visit the site.
- **Responsive content** – Many content items in iMIS respond to screen sizes automatically. You can also configure content items and HTML content to show or hide content based on the size of the device or browser used to access the content.

- **Responsive navigation** – The navigation is responsive. This includes elements like the primary, auxiliary, and secondary navigation.

**Responsive Web Design concepts**

Responsive Web Design (RWD) is an approach for creating websites that provide an optimal viewing experience – easy reading and navigation with a minimum of resizing, panning, and scrolling across a wide range of devices, from mobile phones and tablets to desktop computer monitors.

Creating websites specific to the physical limitations of a variety of devices – different hardware, with different screen sizes, with different resolutions – causes increased maintenance.

A site designed with RWD adapts the layout to the viewing environment by using fluid, proportion-based grids, flexible images, and CSS3 media queries.

The fluid grid concept calls for page-element sizing to be in relative units, such as percentages, rather than absolute units, such as pixels or points.

Flexible images are also sized in relative units, to prevent them from displaying outside their containing element.

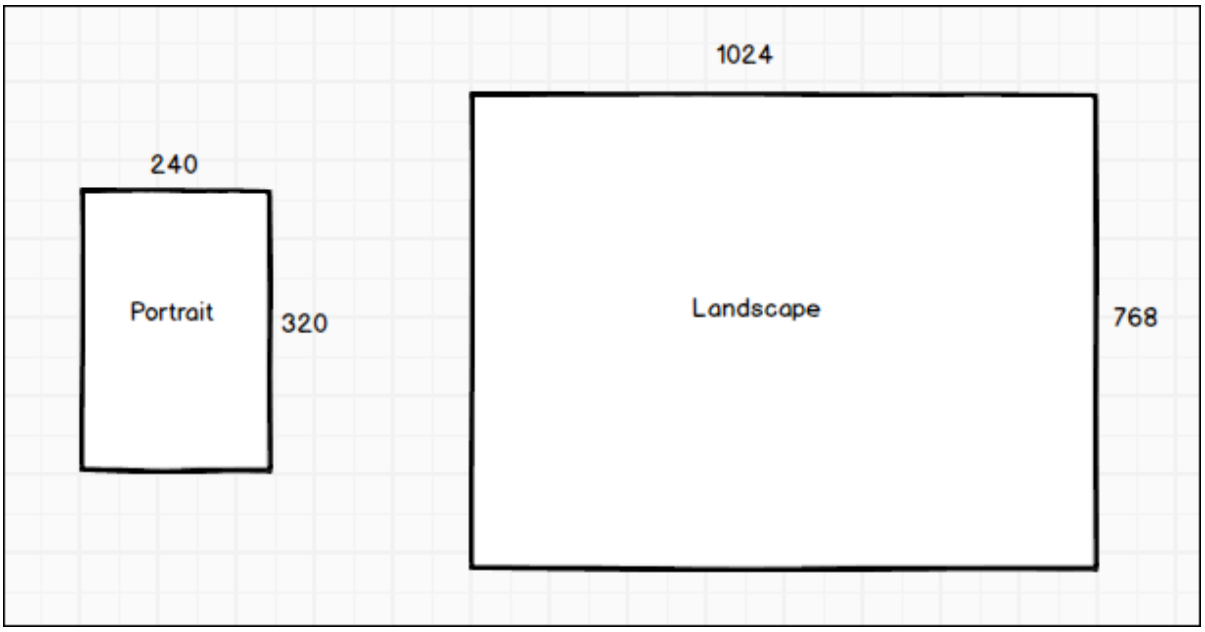
In iMIS RWD sites, we use media queries to apply different CSS styles based on the dimensions of the device the site is being displayed on.

For more detailed information about the concept of Responsive Web Design, see http://alistapart.com/article/responsive-web-design by Ethan Marcotte.

**What does Responsive Web Design respond to?**

New devices with new screen sizes are being developed every day, and each of these devices might handle variations in size, functionality and even color. Many new devices are able to switch from portrait to landscape at the user's discretion.

Click to view image




In addition to both landscape and portrait orientations, consider the hundreds of different screen sizes.

RWD sites respond to both the size and orientation of the device used to access the website.

### Does RWD affect Accessibility?

A responsive site does not automatically meet accessibility guidelines just because it is responsive.

But responsive Web design and accessibility are ways of making a site flexible. When designing a responsive Web page, Web designers begin by thinking about Web pages as a collection of elements that can be rearranged. When designing a Web page to meet accessibility requirements, Web designers begin by thinking about different ways a user might interact with a Web site.

Regardless of how responsive a web site is, if the data and content you are trying to convey to the user are not thought out and planned correctly, you can still have accessibility issues. Responsive design is about content and interaction, about look and feel, regardless of the device on which the content is being accessed.

## Responsive layouts

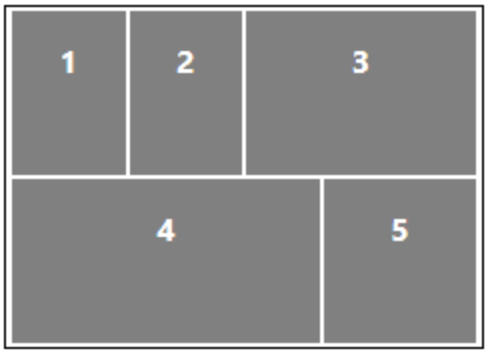
iMIS content layouts define a grid structure for the body of a web page. They determine how many rows or columns each page will have. A responsive layout adjusts that structure fluidly in response to the size of the browser or device used to visit the site.

The out-of-the-box content layouts available in iMIS are based on the Bootstrap grid system. These work in any website, but when used within an iMIS theme specifically created to be responsive, such as **Austin_Responsive**, then you can take full advantage of this fluid, percentage-based grid system.

There are three parts to the content layout grid:

- A container (defined in the master page)
- Any number of rows within the container
- Up to twelve columns per row

Click to view image



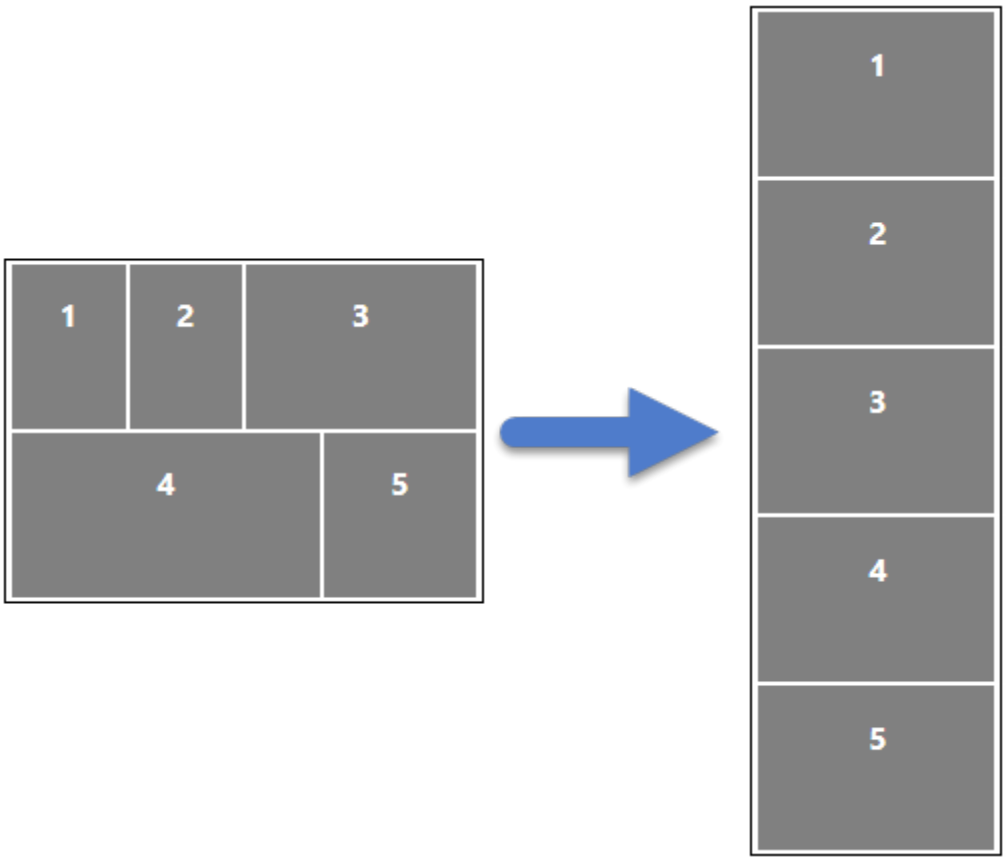

---

Each numbered section is a column. Columns **1**, **2**, and **3** are in one row, and columns **4** and **5** are in the second row. Each numbered section can contain different types of content, whether it is a content item or HTML content.

When you resize a page that contains a responsive layout:

- The width of each column adjusts proportionally to the rest of the page and expands or contracts accordingly.
- When the page is resized to a width less than 768px (or if you visit the site using a device that has a width smaller than 768px), then each of the columns collapse into a single column as shown below.

Click to view image




The best part of this system is that it just works. You do not need to do anything special to use responsive layouts in your website. When you create a new piece of content and select any of the out-of-the-box layouts, the layout will automatically have everything you need for your content to be responsive. You can also create new layouts if needed. For more information, see Creating custom layouts using Bootstrap grids.

### Responsive content

Users can configure any of their websites that use a responsive theme to selectively show or hide various content based on the screen size of the browser or device used to visit the site. For example, an organization might want to have two versions of the About Us content: a longer About Us description when a user is visiting the site using a large or medium-sized screen, and a shorter description when the user is visiting using a smaller screen, for example, on a mobile device. On the Directory page, an organization might

want to show more detailed results on larger screens, and less detailed results, with a smaller number of columns, on smaller screens.

iMIS provides two ways to accomplish this:

- Many dynamic content items include a configuration option that allows you to show or hide the content item on different screen sizes.
- iMIS also provides four utility classes that you can use within any dynamic content item that supports HTML editing.
  When designing content for your responsive website, we suggest making your pages as small as possible. The goal is to create pages that work well on all device sizes. However, when needed, you can use these options and classes to hide content on particular screen sizes if something does not work with the overall design. Be careful when using these options, however: they only hide content. These options do not prevent content from being downloaded. This means that even though you can configure a page to look simplified on small devices, the page size can still be fairly large, which could lead to slower performance. You should only use these options to improve the UI design when needed, not to minimize page size.

### Configuring display options in content items

You can select how dynamic content items are displayed on various devices. Many content items provide a configuration option where you can choose how your content items are displayed.

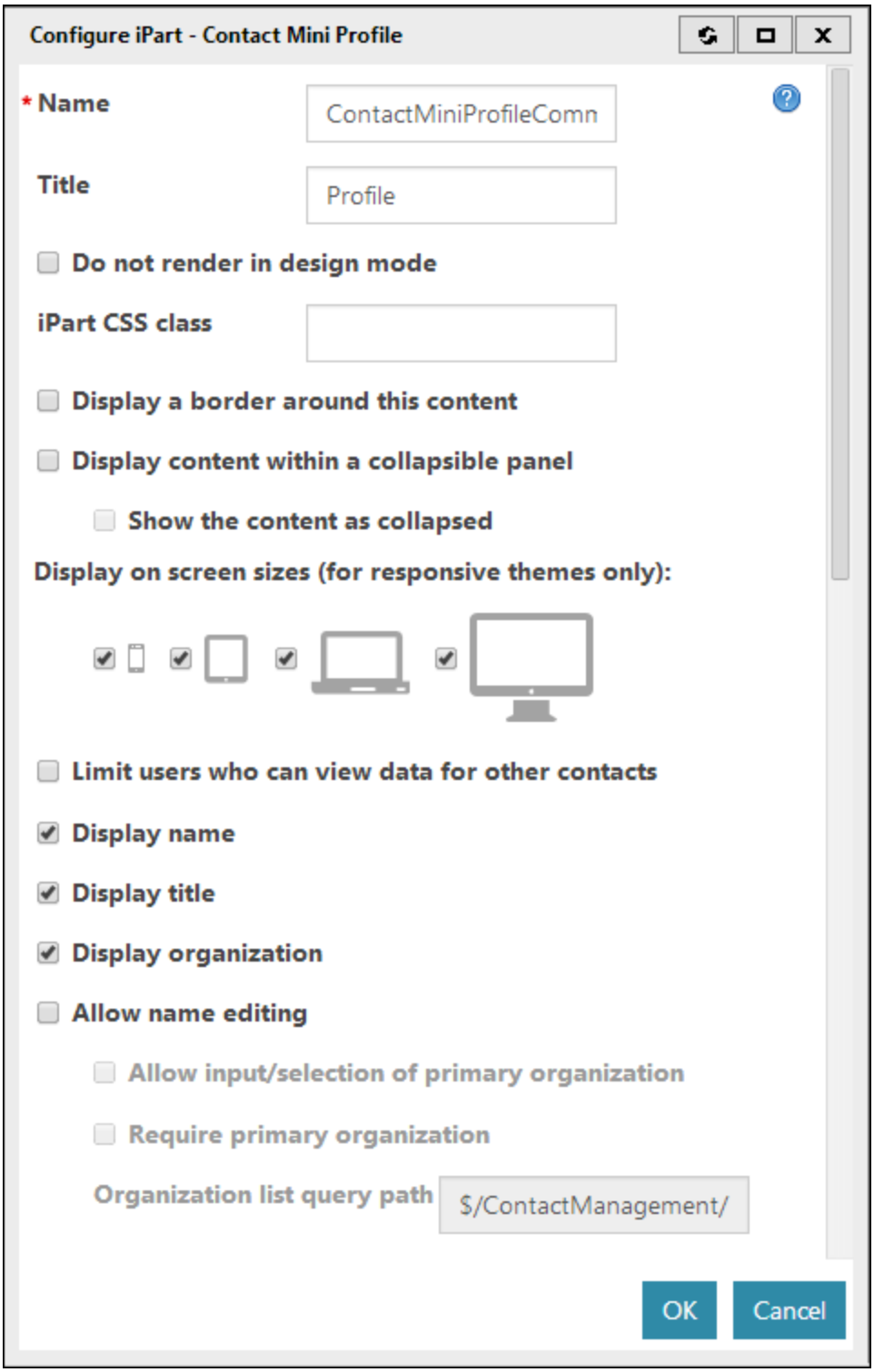
Select one of the following display options:

- **Extra-small screens** – When disabled, this content item is hidden on extra small devices, such as smartphones, where the width of the screen is less than 768px.
- **Small screens** – When disabled, this content item is hidden on small devices, such as tablets, where the width of the screen is greater than 768px and less than 991px.
- **Medium screens** – When disabled, this content item is hidden on medium devices, such as laptops, where the width of the screen is greater than 992px and less than 1199px.
- **Large screens** – When disabled, this content item is hidden on large devices, such as wide computer monitors, where the width of the screen is greater than or equal to 1200px.

> **Note:** When Easy Edit is enabled, all content items for a page are displayed, regardless of the **Display on screen sizes (for responsive themes only)** options that are selected.

For example, you might want to make a contact profile page that displays less information on smaller devices. You can accomplish that by using two Contact Mini Profile content items and the screen display configuration options. Add two Contact Mini Profile content items to a page on the member site. Configure the first content item to only display the user's name, title, organization, and profile picture, then enable it to be shown on all screen sizes.

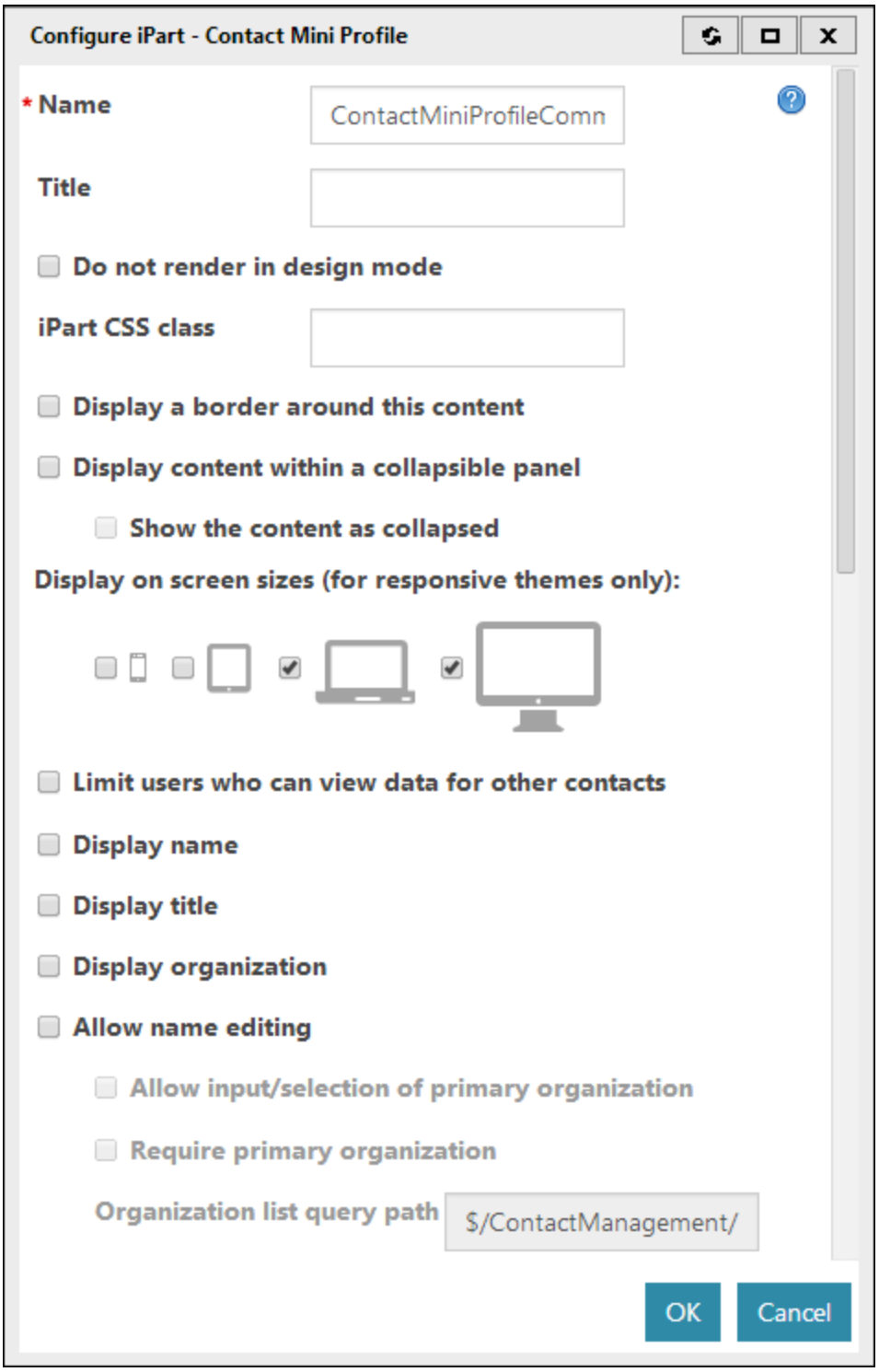
Click to view image




Now add a second Contact Mini Profile content item on that same page. This time, configure the content item to not display the contact's name, title, organization, and picture,

but enable it to display all of the other Mini Profile options, such as displaying the user's address, join date, and paid through date. Only enable this content item to display on medium and large screen sizes.

Click to view image



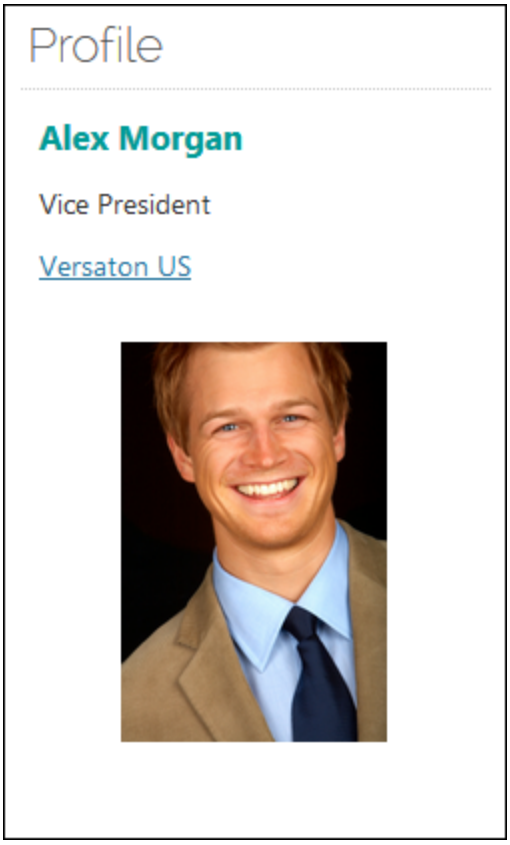

After adding this page to your responsive website, users that visit the page using large or medium sized screens, such as like desktop monitors or laptops, will see a longer version of the Mini Profile.

Click to view image



Users that visit the page using extra-small or small sized screens (like mobile devices or tablets) will see a shorter version of the profile, because the second Mini Profile that contains the more detailed information will be hidden.

Click to view image




### Applying display utility classes in HTML

iMIS provides four utility classes that you can use within any dynamic content item that supports HTML editing or within any content record zone (using the Zone CSS class), so that you can have granular control over the content that is shown on various screen sizes.

> **Note:** These classes only work when applied to block-level elements. Use with inline and table elements is currently not supported.

- **hidden-xs** – When applied to any page element, the contents are hidden on extra small devices, such as smartphones, where the width of the screen is less than 768px.

- **hidden-sm** – When applied to any page element, the contents are hidden on small devices, such as tablets, where the width of the screen is greater than 768px and less than 991px.
- **hidden-md** – When applied to any page element, the contents are hidden on medium devices, such as laptops, where the width of the screen is greater than 992px and less than 1199px.
- **hidden-lg** – When applied to any page element, the contents are hidden on large devices, such as wide computer monitors, where the width of the screen is greater than or equal to 1200px.

  Click to view table

| Classes | Extra Small Devices: Smartphones (less than 768px) | Small Devices: Tablets (greater than or equal to 768px) | Medium Devices: Laptops (greater than or equal to 992px) | Large Devices: Desktop monitors (greater than or equal to 1200px) |
|---|---|---|---|---|
| **hidden-xs** | hidden-xs - When applied to any page element, the contents are hidden on extra small devices, such as smartphones, where the width of the screen is less than 768px. | Visible | Visible | Visible |
| **hidden-sm** | Visible | hidden-sm - When applied to any page ele- | Visible | Visible |

| Classes | Extra Small Devices: Smartphones (less than 768px) | Small Devices: Tablets (greater than or equal to 768px) | Medium Devices: Laptops (greater than or equal to 992px) | Large Devices: Desktop monitors (greater than or equal to 1200px) |
|---|---|---|---|---|
| | | ment, the contents are hidden on small devices, such as tablets, where the width of the screen is greater than 768px and less than 991px. | | |
| **hidden-md** | Visible | Visible | hidden-md - When applied to any page element, the contents are hidden on medium devices, such as laptops, where the width of the screen is greater than 992px and less than 1199px. | Visible |
| **hidden-lg** | Visible | Visible | Visible | hidden-lg - When |

| Classes | Extra Small Devices: Smartphones (less than 768px) | Small Devices: Tablets (greater than or equal to 768px) | Medium Devices: Laptops (greater than or equal to 992px) | Large Devices: Desktop mon-itors (greater than or equal to 1200px) |
|---|---|---|---|---|
| | | | | applied to any page element, the contents are hidden on large devices, such as wide computer monitors, where the width of the screen is greater than or equal to 1200px. |

To configure your responsive website to selectively show or hide various content based on the screen size of the device used to visit the site, open the content item and select the **<>HTML** tab. This allows you to directly edit the HTML content. For any content that you want to hide on a particular screen size, apply the appropriate class to either a specific tag or to a div tag surrounding a group of elements you want to hide.

For example, consider a page like the following:

```
<h1>Our Association</h1>

<p>We are the leading association for the industry. We help professionals develop their skills and further their careers by providing access to unique and relevant content and exclusive member services. We provide continuity and support, guidance and leadership development opportunities to over 200 local and regional chapters.</p>
```

```
<p>Our independent non-profit association was created to provide leadership for the development, promotion, and improvement of our profession. Our strategic plan calls for continued work in the areas of advocacy, diversity, education, and organizational excellence.</p>
```

If a user wants to hide the second paragraph on extra-small devices, apply the **hidden-xs** class to the paragraph:

```
<p class="hidden-xs">Our independent non-profit association was created to provide leadership for the development, promotion, and improvement of our profession. Our strategic
plan calls for continued work in the areas of advocacy, diversity, education, and organizational
excellence.</p>
```

When displayed in a browser, that paragraph will display on all screen sizes, except for extra-small screens, such as smartphones.

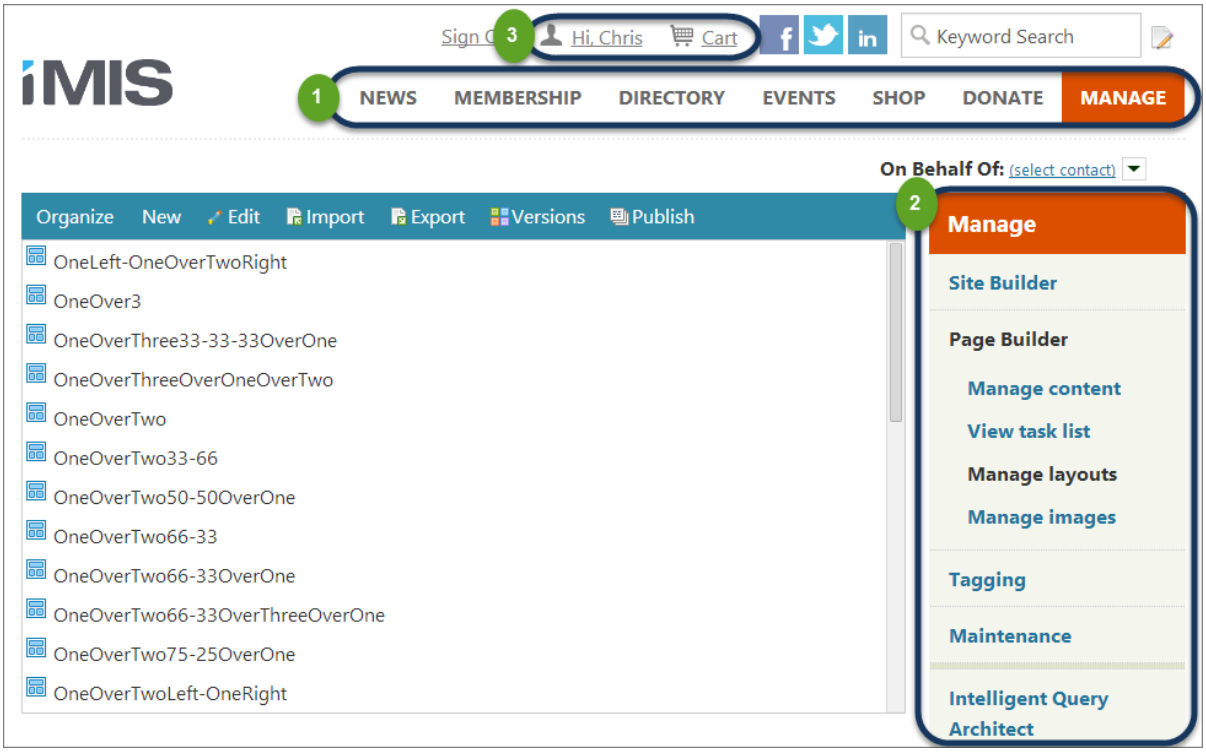
### Responsive navigation

iMIS has three levels of responsive navigation in responsive-themed websites. The list below describes the out-of-the-box behavior of navigation in the **Austin_Responsive** theme.

- **Primary navigation** – On larger screens and devices, the primary navigation displays along the top of the page. But when resized below 768px, the primary navigation is hidden within a toggle on your website which remains hidden until the toggle is clicked.
- **Sub-navigation** – If any of the primary navigation items have sub-navigation, then these items are displayed on the page in two ways:
- When you hover over the primary navigation item (most useful for Desktop users) and
- On the page itself (most useful for touchscreen devices, some of which do not support hovering). In the **Austin_Responsive** theme, the sub-navigation moves from the right column on larger displays to the bottom of the page on displays smaller than 768px wide.

- **Auxiliary navigation** – On larger screens and devices, the auxiliary navigation displays at the very top of the page. When resized to a width less than 768px, navigation icons are displayed in place of the text.
  The following image demonstrates the navigation areas in the **Austin_Responsive** theme on a wider screen size.

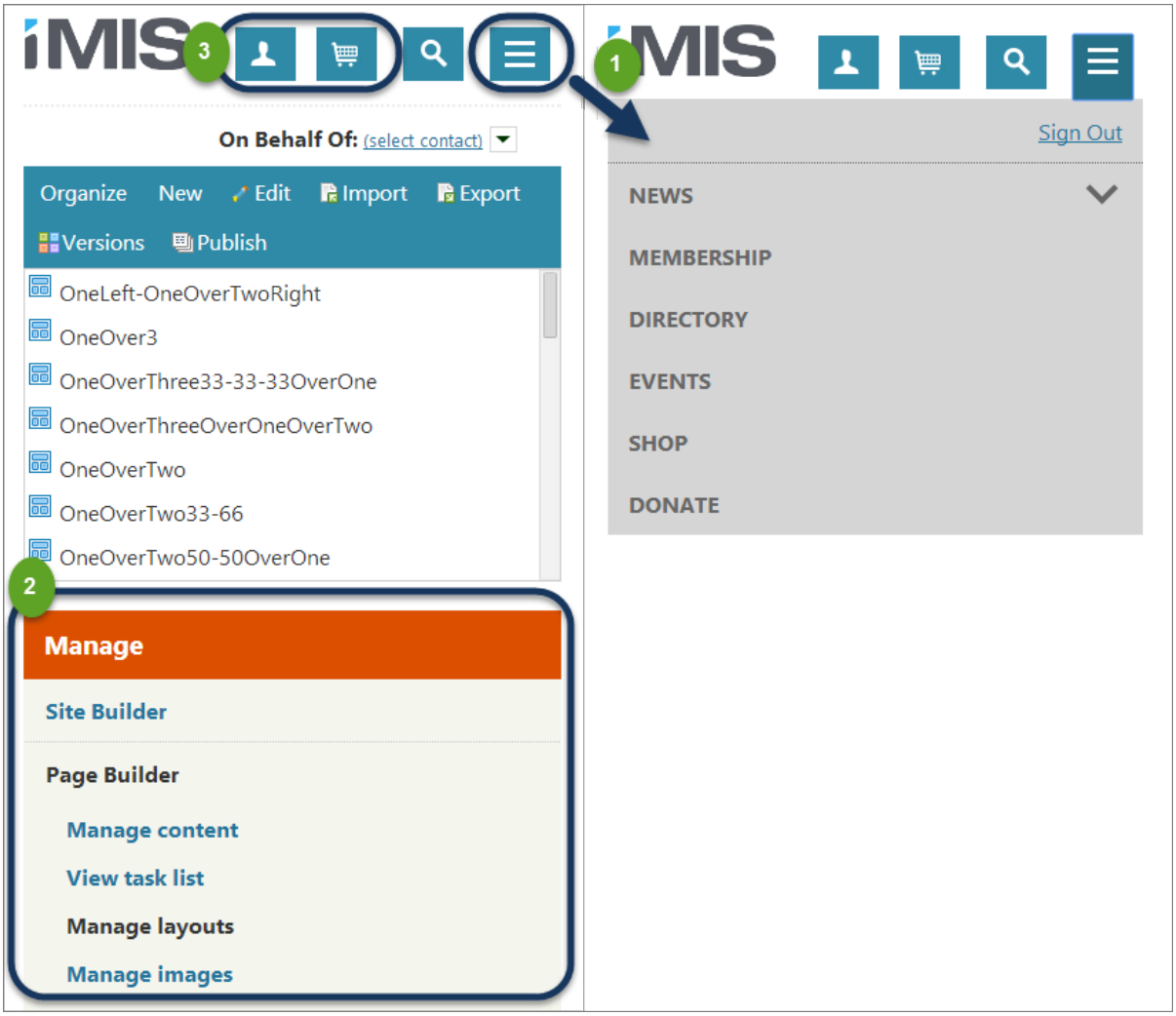
  Click to view image




- (1) Primary navigation
- (2) Sub-navigation
- (3) Auxiliary navigation

The following image demonstrates the navigation areas in the **Austin_Responsive** theme on a smaller screen size to demonstrate how the navigation areas move around to accommodate less screen real estate.

Click to view image



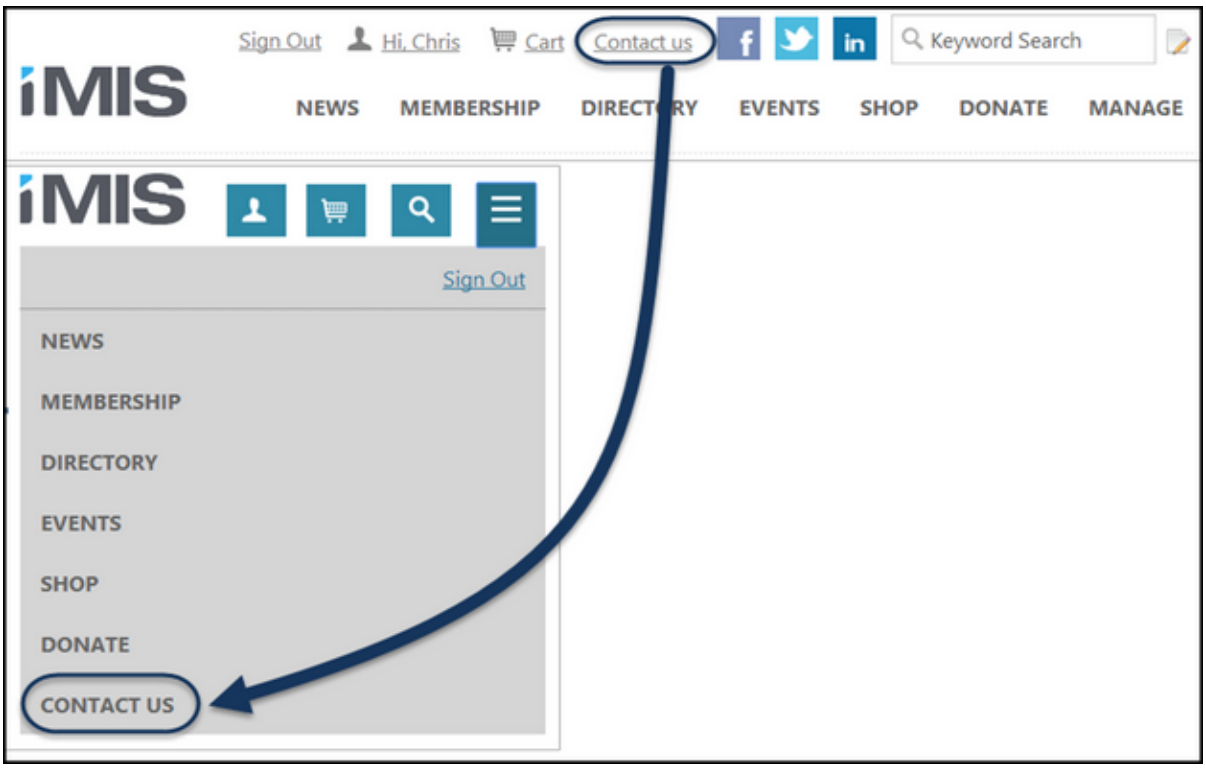

- (1) Primary navigation (a toggle that when clicked expands to display the primary navigation items)
- (2) Sub-navigation
- (3) Auxiliary navigation

**Responsive navigation utility classes**

If you want to implement your own auxiliary navigation items in your site that mimic the style of the out-of-the-box auxiliary navigation items provided in the **Member Responsive** site, you can use the following utility classes. To use these classes, enter the value in the **CSS Class** field when defining the navigation item in **Manage sitemaps**.

- The class **nav-aux-account** adds a Person icon to the left of the navigation item in the auxiliary menu.
- The class **nav-aux-cart** will add a Cart icon to the left of the navigation item. This class displays the quantity of items in the cart above the cart icon when the user has any items in their cart.
- The class **nav-aux-button**, when added to either of these classes, changes the link to a button when the screen has a small width. For example, in the account link navigation item, enter **nav-aux-account nav-aux-button**. This will create an account button.
- The class **nav-aux-primary-switch** moves a navigation item from the auxiliary navigation area to the primary navigation area when the screen size is less than 768px wide. To use this class, configure your navigation item to not be hidden, and to display in the auxiliary navigation area.

  Click to view image




## Website concepts

The terms described in this section explain the basic concepts of iMIS content management.

### Concept: master pages and themes

The look and feel of an iMIS content management website comprises the general page layout, colors, graphics, and fonts used for all rendered pages in the website. This look and feel is defined by the design's master page and theme. Master pages and themes are basic elements of ASP.NET websites, and detailed information about developing and customizing master pages and themes can be found in Microsoft developer resources for ASP.NET development such as the Microsoft Developer Network.

- If you want to customize one of the out-of-the-box themes, we recommend that you start with a copy, so that your changes are preserved when you upgrade. See Copying a website theme for more information.
- If you prefer to use your own hand-built master pages and themes, you must first place them in the appropriate **MasterPages** and **App_Themes** folders beneath the IIS website root that you plan to associate with this iMIS content management website. This ensures that the master pages and themes are available for selection when defining the properties of the website. You must also ensure that the master pages meet all requirements for compatibility with iMIS content management.
  The master page is an ASP.NET file that specifies the general page layout of all pages in the website. Do not confuse this with the content layout used for the main content area of each page. The master page defines everything that appears on a rendered page, and where they appear, except for two things:

- The rendered content visible in the Main Content Area of each page is controlled by the navigation item for that page. The master page defines only where this content area appears on the website pages, and the content area's exact dimensions.
- The navigation items in the website's sitemap define the actual navigation link text and breadcrumb text shown in the navigation areas. The master page defines only the location, appearance, and behavior of the available navigation areas for the website. Which of the available navigation areas are actually used for the website is defined in the properties of the website itself, and each navigation item specifies the exact navigation areas in which it is displayed.
  The theme is a collection of files that specify exactly which colors, graphics, and fonts are used in all rendered website pages, giving them a consistent appearance. The theme

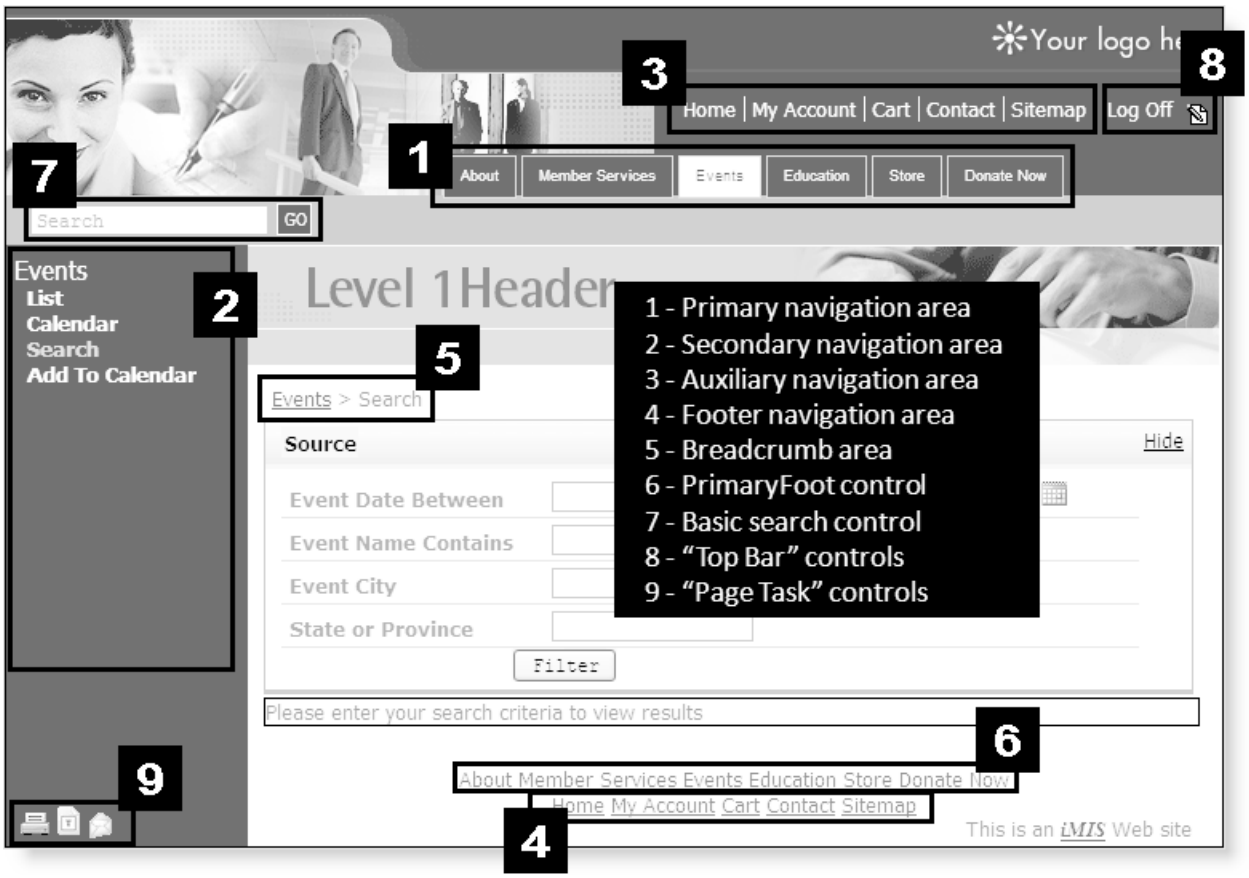
comprises all the cascading style sheets used by the master page and available for use in a content layout's content item zones and content items, as well as all the graphics used by the master page, as opposed to graphics used in content records. Some themes might also include ASP.NET skin files, which define property settings for ASP.NET Web server controls.

### Concept: navigation areas and breadcrumb areas

Navigation areas are special ASI-developed controls used in master pages that create automated lists of navigation links. All ASI-developed master pages are designed to support the four default navigation areas and the breadcrumb area shown in the following diagram, but you can define up to 30 navigation areas in the system and add the corresponding elements to support those navigation areas to any master page.

The breadcrumb area appears automatically on every site, but you must specify exactly which navigation areas to enable globally for use by the navigation items in the website's sitemap. The four default navigation areas provided with iMIS content management are shown in the following diagram.

Click to view image




When a navigation area is globally enabled in the definition for an iMIS content management website, a checkbox representing that navigation area becomes available for selection when you are defining navigation items in the sitemap for the website. Whether a particular navigation item actually appears in one of the enabled navigation areas of the website is determined by the specific navigation area checkboxes you select for that navigation item when you are defining it.

All master pages fully support the breadcrumb area and all four of the default navigation areas. However, if you modify the definition of any of the default navigation areas in iMIS content management, you might need to revise the master pages to support the changes that you have made.

To integrate your own hand-built master pages with iMIS content management, if you plan to use the breadcrumb area and navigation areas available to iMIS content management websites, you must ensure that you add the appropriate elements to your

master page to support them. Similarly, if you define additional navigation areas in iMIS content management, you must modify your master pages to support these additional navigation areas.

> **Note:** The controls that display the **Logon/Logoff** link and the icon that toggles **Easy Edit** mode, both of which appear by default at the right of the **Auxiliary** navigation area, are not a part of the **Auxiliary** navigation area, so they are unaffected if you remove or move the location of this navigation area.

### Concept: publishing iMIS content

When you create or change an existing iMIS content management website, navigation item, content folder, content record, or any other iMIS content management definition object in the Document System and click **Save**, nothing happens except that iMIS stores a **Working** version of that object in the iMIS database. It is only when you click **Publish** that iMIS actually implements the new version of the definition object, replacing the previous **Published** version of the object with this new **Working** version and then marking it with a status of **Published** to indicate that it is now the current active version.

When you publish the various types of iMIS content management definition objects, different things happen depending on what type of object is published.

> **Note:** The following descriptions generally apply to the publishing option **Publish Working Items Only**. If you select either of the other publishing options, then objects in any state are published.

- **Websites** – No downstream processes happen other than iMIS content management creates a corresponding sitemap if it is an entirely new website, so that you have a structure into which you can add navigation items. If you have developed your own custom master pages and themes, the people in your organization who perform website administration should have already placed the necessary files on the servers that will host the website.
- **Navigation items** – When a browser first requests a website URL from the iMIS application server or an external web server that has been prepared to host iMIS content management websites, the iMIS content management code on that server examines the

**Published** sitemap object in the iMIS database and then builds a corresponding in-memory representation of the sitemap's navigation structure. A timer process then rechecks the iMIS database every five minutes by default to determine whether a newer version of the sitemap object has been published, and, if so, the iMIS content management code on that server rebuilds its in-memory sitemap structure for that website.

> **Note:** You can change this default five-minute polling interval if desired, but be aware that each polling process consumes a small amount of system resources so there is a performance tradeoff in specifying a more frequent polling interval. To change the polling interval, edit the value of the **Sitemap.CachePeriod** key (expressed in minutes) in the **<SystemParams>** declaration in the **web.config** file for the iMIS application (IIS application **\iMIS**).

- **Content folders** – No downstream processes happen other than iMIS checks the status of all descendant content records and sub folders and if iMIS finds any that are currently in a **Working** state, iMIS automatically publishes them as well. This enables you to spend several days working on a major change to your website content that encompasses many content records, and then publish all those changes in one action by publishing a content folder high enough in the folder hierarchy to cover all the content records that are in a **Working** state.
  Changes made to the **Access Settings** of a content folder that are applied to all descendants are saved to the **Published** descendant content records without the need to republish each record. Security checks to determine whether the rendered version of a content record should be served to the requesting browser are performed by examining the current **Access Setting** values of the **Published** content record object in the iMIS database.
- **Content records** – iMIS checks the value of the **Publish on Servers** field in the parent content folder to determine which publishing servers should handle the publishing of the content record. iMIS then creates a separate publishing request in the iMIS database for each associated publishing server. The initial polling of data happens only when the AsiScheduler starts. After that, changes in the database trigger a PUSH to **AsiScheduler**.

If so, the publishing service examines the **Published** content record object in the iMIS database and then renders a corresponding **.aspx** file and places that file in the appropriate location in the server's local file system so that IIS can serve that page to browsers that request the content record's corresponding navigation item link.

> **Note:** You can change this default five-minute polling interval if desired, but be aware that each polling process consumes a small amount of system resources so there is a performance tradeoff in specifying a more frequent polling interval. To change the polling interval, edit the definition for the corresponding publishing server and specify the desired polling interval in the **Frequency** field.

> **Note:** The iMIS content management configuration field **CM.PublishingMaxNumOfAttempts** (go to **Settings > RiSE > Page Builder configuration**) determines how many times each publishing service will attempt to process a system publishing request before it flags the request as failed. This prevents overconsumption of system resources if there is a connection issue or other issue that is preventing the publishing service from successfully processing the request.

- **Content layouts** – No downstream processes happen. When you define a content record, iMIS populates the list of available **Page Layouts** by examining all the **Published** versions of content layout objects in the iMIS database.
- **Content types** – No downstream processes happen. When you define a content record, iMIS examines the **Published** content type objects in the iMIS database to determine how to display the corresponding content item when added to the content record.
- **Tagged list formats** – No downstream processes happen. When you add a **ContentTaggedList** content item to a content record, iMIS populates the list of available **List Formats** by examining all the **Published** tagged list format objects in the iMIS database.

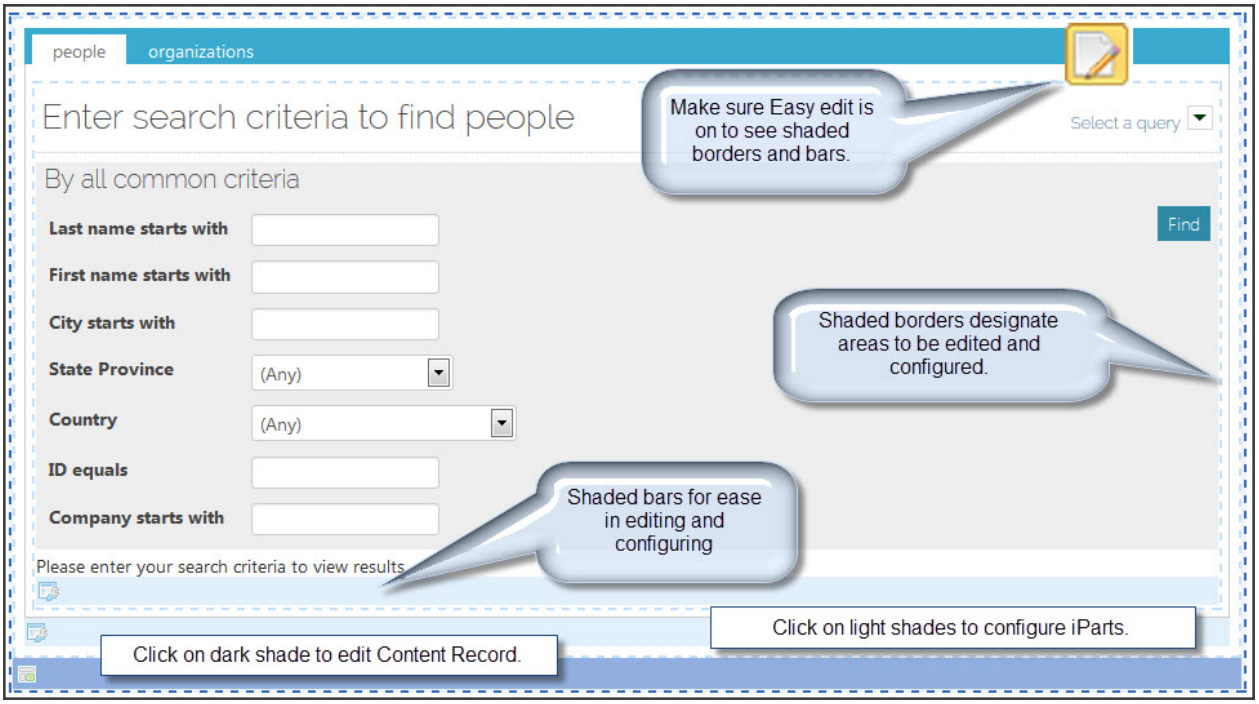
**Concept: Easy Edit**

The Easy Edit feature enables you to browse, or surf, to update your content records in their rendered form. You can quickly open a web page's underlying content record (or even a specific content item within the content record) for editing. When you have saved

your changes, you can continue surfing the website and making further content revisions as needed.

Full, Casual and Public users of iMIS can use the Easy Edit feature, provided they are members of at least one content authority group (CAG) and they have been granted the necessary Document System permissions on content records. This is the only way that Casual and Public users can define iMIS content management content.

Click to view image




### Concept: user-defined fields (UDFs)

User-defined fields (UDFs) in iMIS content management are created differently, and serve a very different purpose, than user-defined fields in iMIS contact records:

- The UDFs found in iMIS contact records enable you to collect custom information about a contact. These contact UDFs are not available for use in iMIS content management.
- The UDFs found in iMIS content management are primarily useful as a way to capture additional properties of the content in content records, and to provide a controlled list of search criteria for use in iMIS content management only. These iMIS content management UDFs can be used in three ways:

- As a value added to the keywords <META> element in the rendered page for the content record, which enables searches performed through the iMIS content management search engine (but not by typical external web-based search engines) to locate the content record by searching for this value. This behavior is controlled by the **Use in Search?** property of an iMIS content management UDF.
- As a search filter in **AdvancedSearch** content items, applied to the initial result set based on the tags and keywords specified in the search.
- As both filtering criteria and sorting criteria in **ContentTaggedList** content items. A date-oriented UDF can be used to filter the initial result set based on the chosen tags, and a different UDF of any type can be used to sort the the final result set.
  Every UDF defined in iMIS content management is added as a new custom property to every content record, and can be displayed in a wide variety of formats, from a simple text field to a drop-down list, to a calendar control, to a set of radio buttons, and so on. In the advanced search panel rendered from an **AdvancedSearch** content item, the user-defined field appears exactly the same way that it does in content records. This enables iMIS content management website users to specify UDF values for advanced searches in the same manner that the UDF values are chosen when authoring content. For example, a date-oriented UDF will have a calendar control that makes it easy to select a date.

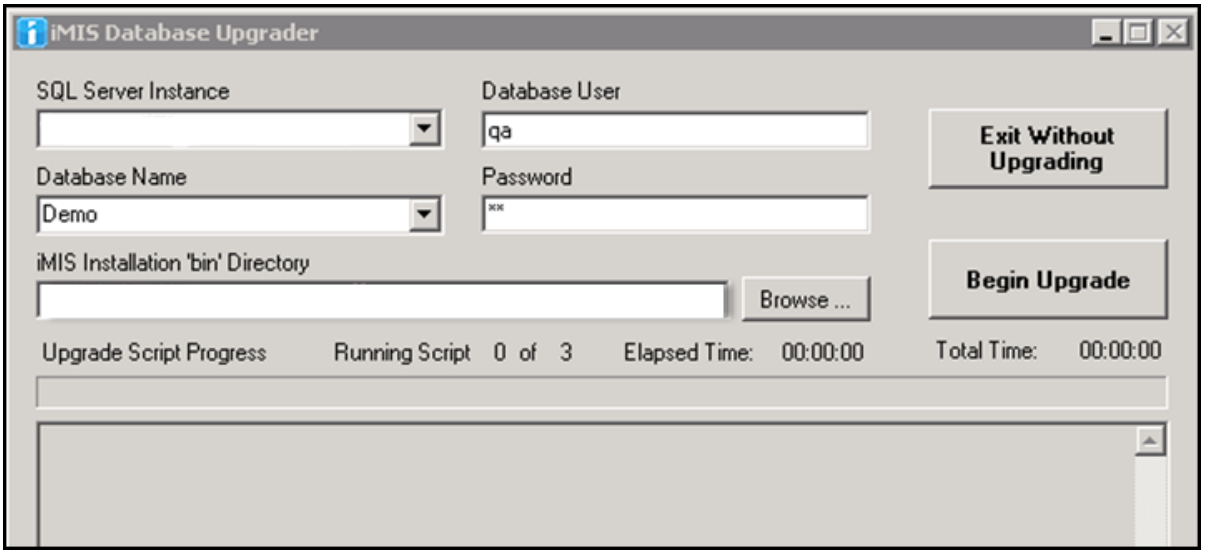
**Concept: websites and web server interaction with iMIS**

An iMIS content management website is slightly different from a Microsoft Internet Information Services (IIS) website. While the rendered output of an iMIS content management website provides a total website experience for visitors to the site, a single iMIS content management website can actually be hosted on multiple web servers even though you are only maintaining a single website in your iMIS content management environment. Within the internal structure of IIS, an iMIS content management website is usually maintained as a subset of the iMIS application, but you can configure IIS to host iMIS content management websites as individual IIS applications or even as individual IIS websites.

## iMIS Database Upgrader: DB Upgrader

You can run iMIS Database Upgrader (DB Upgrader) standalone from the iMIS program group. Use **View Logs** to quickly locate and view log outputs for all upgrades, completed and failed.

Click to view image




**Warning!**

Special characters in your **sa** password can disrupt command-line processing, so change the password to use only alphanumeric characters and **! # @**, with no spaces. You can use hyphens and underscores after the first character, but avoid all other punctuation and symbols.

### Begin Upgrade

This button runs a set of database upgrade scripts against the specified iMIS database. The specific scripts that are run depend on how many versions back the database is from the current version of iMIS. There is one upgrade script per version, so the upgrader upgrades the starting version to the next version, then the next, and so on until the final script updates the database to the current release of iMIS.

The following error message appears in the **iMIS15DBUpgrade.log** file if the upgrade process fails:

```
*** UPGRADE PROCESS ENDED WITH ERRORS !!! ***
```

To determine how to retry the database upgrade after fixing the problems suggested by the point at which the failure occurred, you first must identify which upgrade script failed

by scrolling up through the log until you find the header stamp that immediately precedes the error message. Header stamps look like this:

```
==========================================================================
=
= iMIS 15.0.2.x to iMIS 15.0.3.x Database Upgrade Driver Script =

==========================================================================
=
```

The version numbers shown in the header stamp determine how you must retry the database upgrade:

- If the first version number shown in the header stamp (the one on the left) is 15.1.1 or higher, you should fix the data in the current version of the database, then in the **iMIS 15 Database Upgrader**, click **Begin Upgrade** to resume the database upgrade from the beginning of the step that failed.
  If you want to restart the upgrade from some step earlier than the one in which the failure occurred, run the following UPDATE against the database, specifying a **ParameterValue** that is the step at which you want to restart the upgrade (use a value of **0** to force the upgrade to restart at the very beginning):

  ```
  UPDATE [dbo].[SystemConfig]
     SET [ParameterValue] = 3  -- The last completed step number
     WHERE [ParameterName] = 'System.Database.State'
  ```

- If the first version number shown in the header stamp is lower than 15.1.1, you must first restore the database to the backup you made before beginning the upgrade process. Next, fix the data in that restored version of the database. Finally, in the **iMIS 15 Database Upgrader**, click **Begin Upgrade** to restart the entire database upgrade process. Note that you cannot click **Begin Upgrade** until you have restored the database to a backup preceding its failed upgrade state.

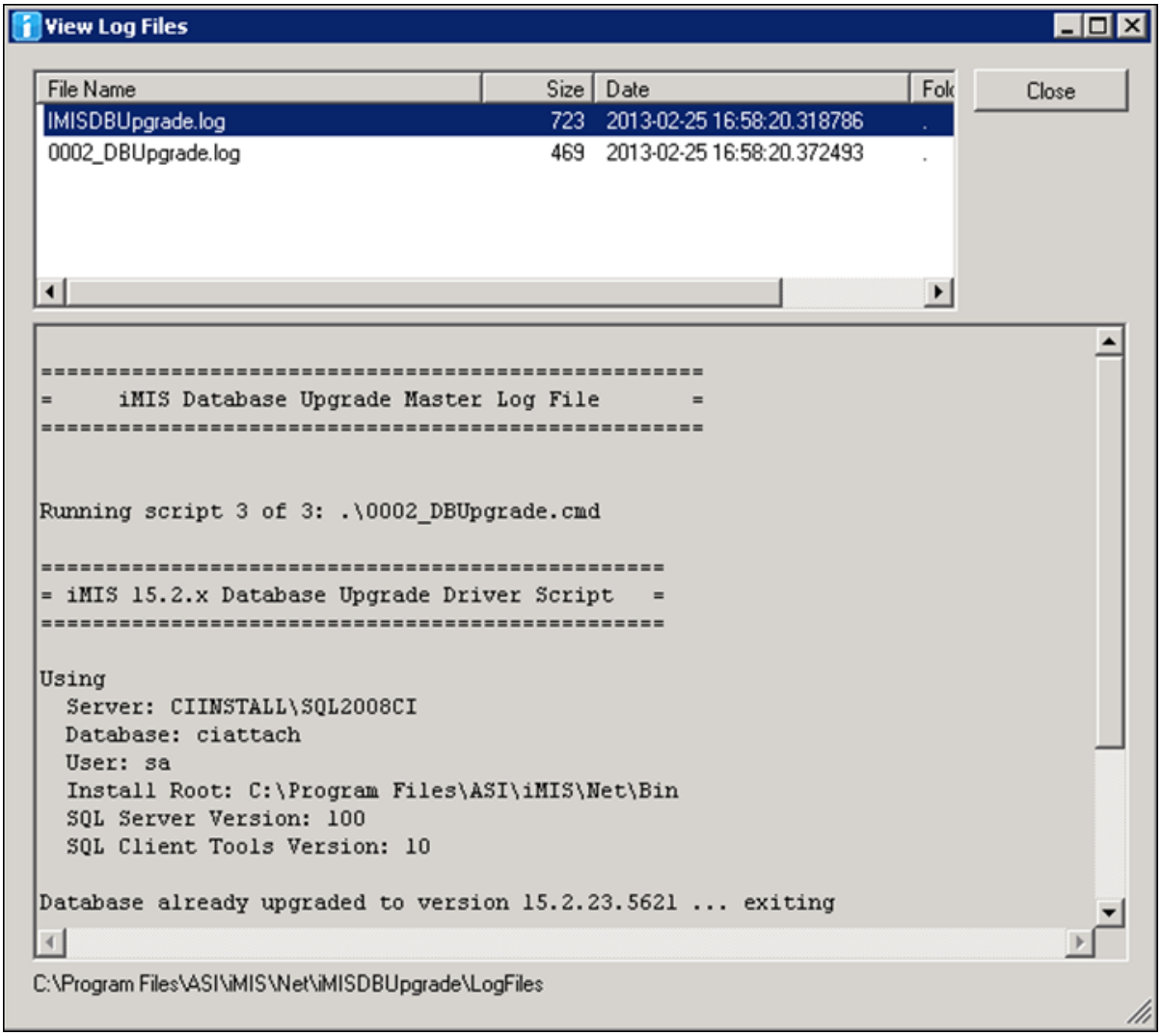
## View Log Files

The log files appear chronologically by run time. To sort the list by any column, click on its header.  To help you spot errors, ***.err** files have red highlighting.

The contents of the selected log display below the list, and the pathname displays at bottom. At top right, the **Viewing:** information and **Log History** command remain hidden until you have run multiple upgrades.

> **Note:** You can select and copy text within both the log contents and the pathname areas.

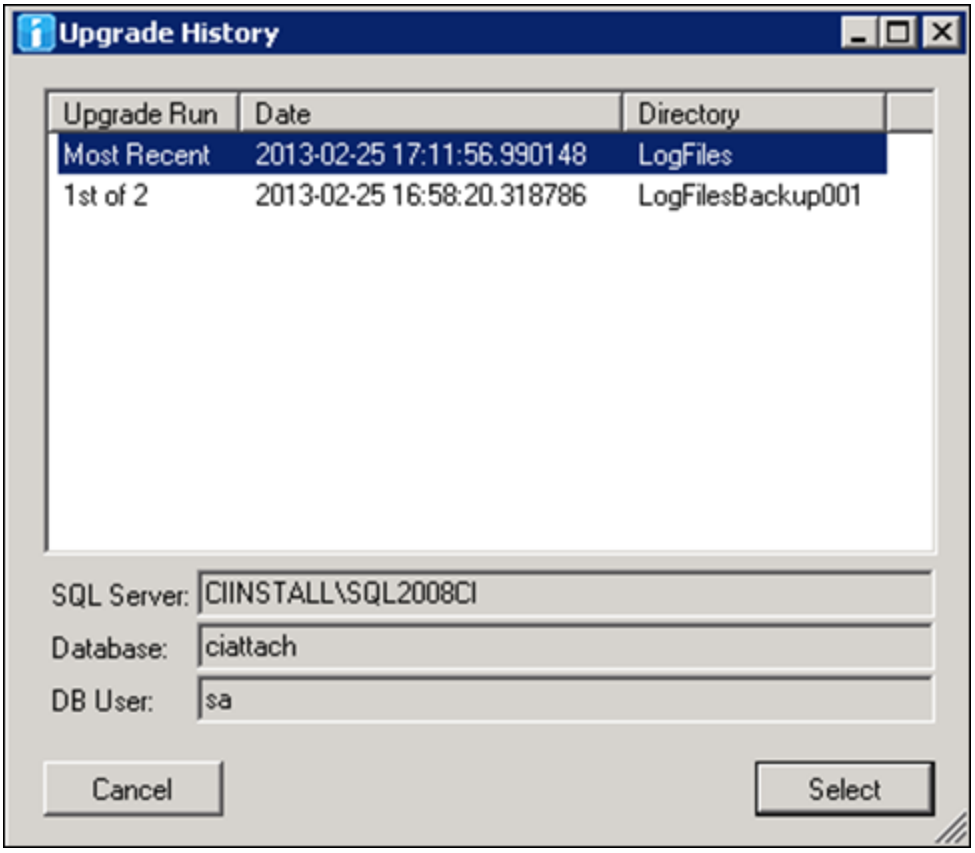
Click to view image




## Upgrade History window

All logs of every run are preserved, so use this archive to access prior runs, for getting log file locations and copying log file text (such as error messages) into other applications or email. The Upgrade History lists the order, date, and location of all the upgrades that have ever been run. Below the list, you can see which user, server, and database name were used for the selected upgrade.

Click to view image

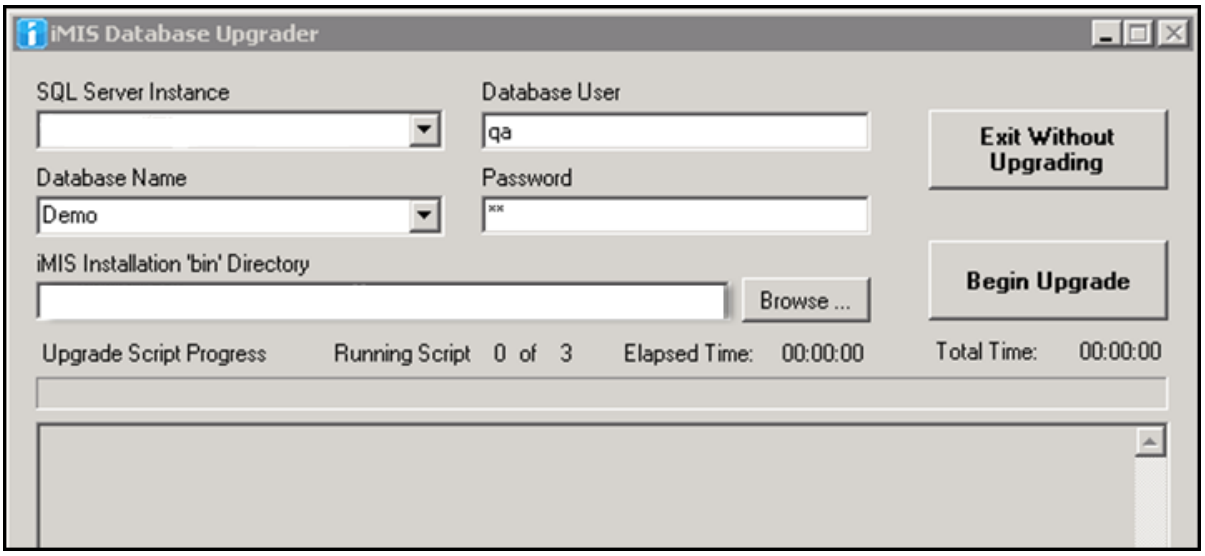



Click **Select** to return to the previous window with the selected run's logs displayed, rather than the most recent run (the default).

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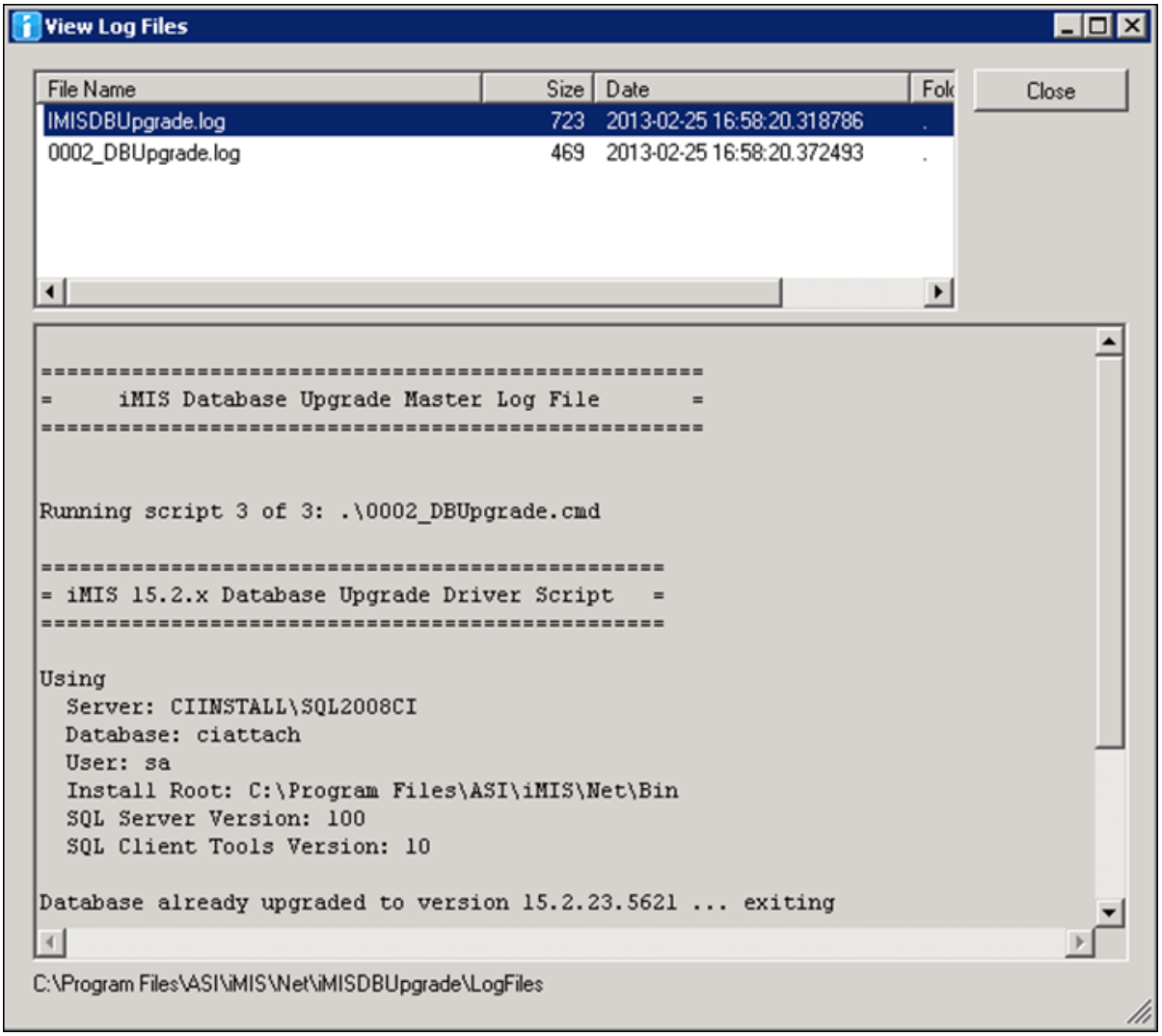
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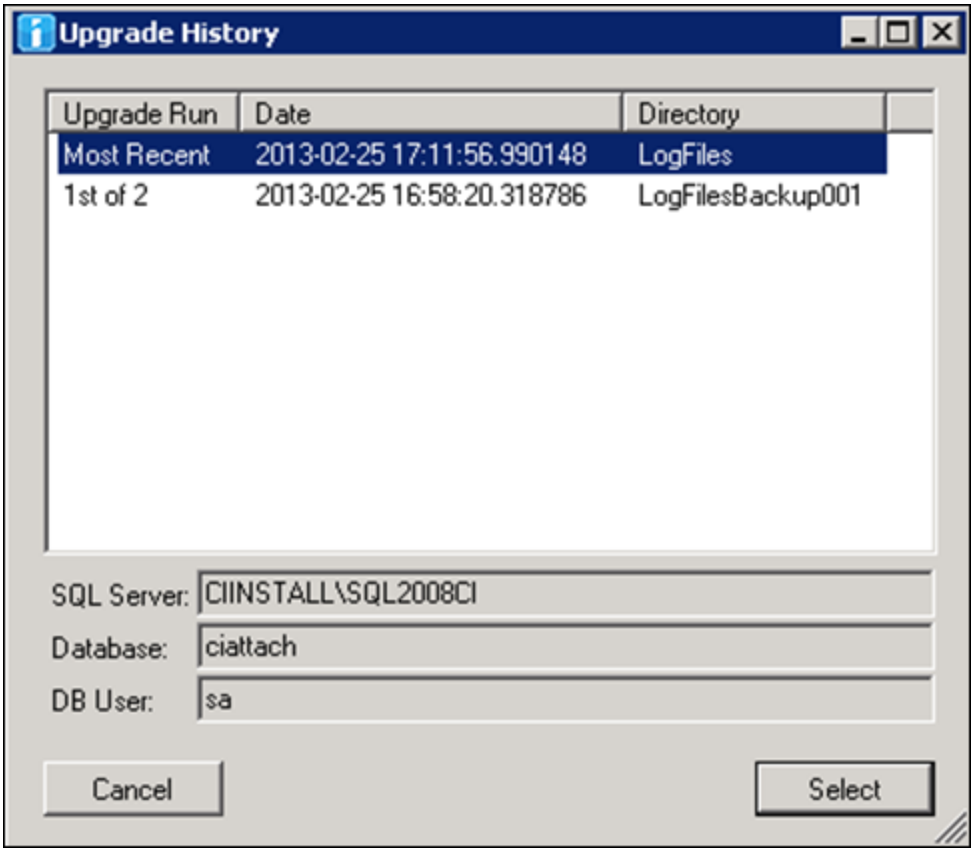
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Click to view image




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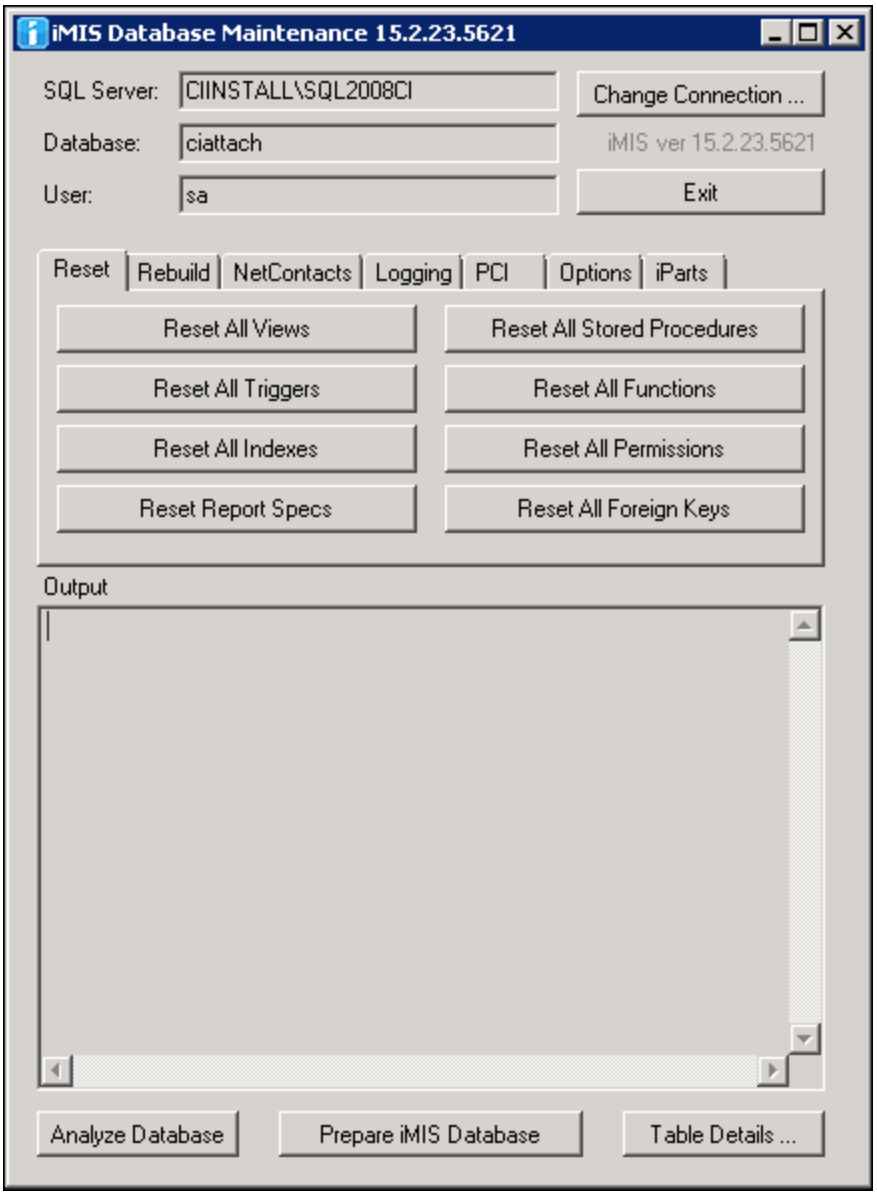
### iMIS Database Maintenance: DB Maintenance

iMIS Database Maintenance (DB Maintenance) is a standalone application that replaced the iMIS 10 Table Analysis utility. This tool lets you rebuild, analyze, and manage all iMIS tables. It also lets you run special scripts that prepare your database to support advanced options, such as PCI, NRDS, and VAT.

**Note:** The **DB Maintenance** utility replaces **DB Repair**.

DB Maintenance runs as a separate, local application from the iMIS program group and organizes helpful database commands on a set of tabs.

Click to view image




- **Change Connection** – Switch to another iMIS database.
- **Output** – Displays information about the functions performed; this information also writes to a log file in the executable's directory.

- **Analyze Database** – Run a full analysis on the entire iMIS database. This process performs an extensive database analysis, so allow ample time for it to run.
  Table analysis testing:
- missing table
- missing or extra columns
- wrong column order, data type, length, or defaults
- wrong numeric precision, scale, radix
- missing index
- missing PK/unique/clustered index
- missing or disabled triggers
- missing or disabled/distrusted foreign keys

- **Prepare iMIS Database** – Prepare an iMIS database that has just been restored to a new location or under a new name.
- **Table Details** – Analyze, examine, reset, or rebuild individual tables.
  **Precautions for using DB Maintenance**
- Verify that you have a valid backup of your iMIS database before running DB Maintenance commands that modify the database.
- Ensure the database is protected from updates before modifying it, to prevent failures and data problems from changes occurring while entities are being reset/rebuilt/removed:

a. Have all users log out.
b. Stop webservers from updating the database, such as by stopping the AppPool in IIS.

- While users are logged in, you can safely run **Analyze Database** and **Table Details**; however, analyzing the database can affect performance.

**DB Maintenance tabs**

Reset tab

These functions restore database items to the states they held when last upgraded or installed.

- **Reset All Views** – Drop and recreate all iMIS System Views to what they were at the last install/upgrade. Custom Views are unaffected.
- **Reset All Triggers** – Drop and recreate all iMIS System Triggers to what they were at the last install/upgrade. Custom Triggers are unaffected.

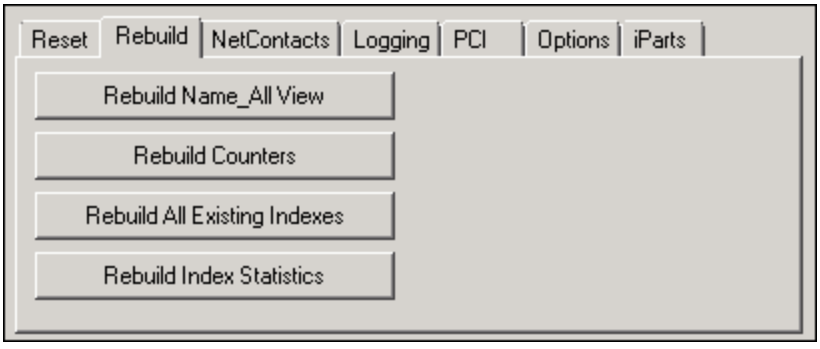
- **Reset All Indexes** – Drop and recreate all iMIS System Indexes to what they were at the last install/upgrade. This preserves custom indexes, as well as primary and alternate key indexes, because of foreign key constraints (relevant only for newer .NET tables).

  > **Note:** This function will not complete successfully if your iMIS database contains any full-text indexes. You must first drop all full-text indexes that might exist in your iMIS database, and then manually re-create them after you have finished running this function.

- **Reset Report Specs** – Reset all iMIS Standard Report Specifications to what they were at the time of the last install or upgrade. These specifications are found in iMIS Advanced Accounting Console, from the menu **Utilities > Report Specs**. Custom report specifications are not affected.
- **Reset All Stored Procedures** – Drop and recreate all iMIS System Stored Procedures to what they were at the last install/upgrade. Custom Procedures are unaffected.
- **Reset All Functions** – Drop and recreate all iMIS System Functions to what they were at the last install/upgrade. Custom User Defined Functions (UDFs) are unaffected.
- **Reset All Permissions** – Reset the permissions on all iMIS System database objects to what they were at the last install/upgrade. This grants permissions to all iMIS System database objects to the iMIS group as required.

Rebuild tab

Click to view image

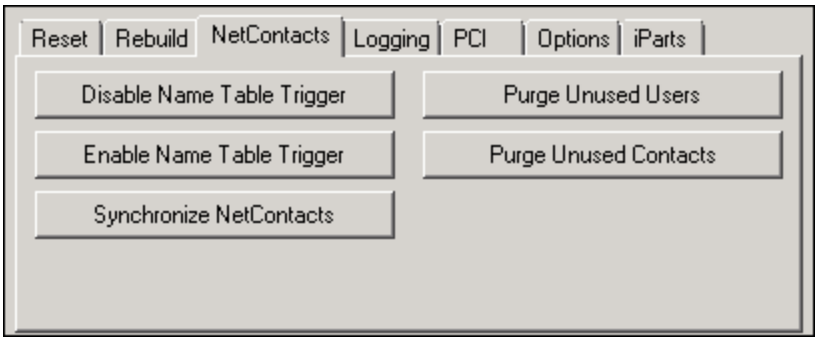



- **Rebuild Name_All View** – Rebuild the Name_All View, which is not rebuilt by **Reset All Views**.
- **Rebuild Counters** – Rebuild all iMIS counters.

- **Rebuild All Existing Indexes** – Rebuild all iMIS System Indexes. This runs a DBCC REINDEX command against all existing iMIS table indexes.
- **Rebuild Index Statistics** – Update all iMIS System Index Statistics.

NetContacts tab

Click to view image




NetContacts

NetContacts commands help you avoid errors when importing contact records into iMIS. **NetContacts** takes its name from the **CsNetContacts** business object.

In iMIS 15, a Name table trigger copies data to numerous .NET tables (such as ContactMain, Individual, Institute); the **NetContacts** tab helps you achieve the same synchronization when you import contacts into iMIS (see Importing contact records).

- **Disable Name Table Trigger** – Disable the trigger on the Name Table that keeps the NetContacts synchronized.
- **Enable Name Table Trigger** – Enable the trigger on the Name Table that keeps the NetContacts synchronized.
- **Synchronize NetContacts** – Synchronize the NetContacts after loading the Name table with the trigger disabled.

Purge

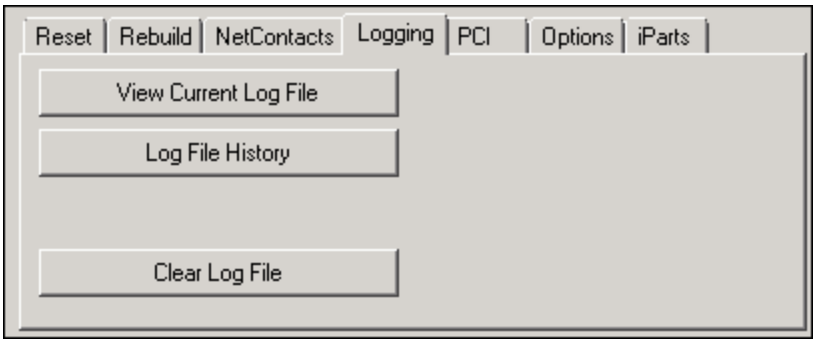
Purge (see Purging user and contact records) allows you to permanently delete entries from .NET tables.

- **Purge Unused Users** – Permanently removes user entries from .NET tables that were previously purged from Client/Server tables.

- **Purge Unused Contacts** – Permanently removes contact entries from .NET tables that were previously purged from Client/Server tables.

Logging tab

Click to view image

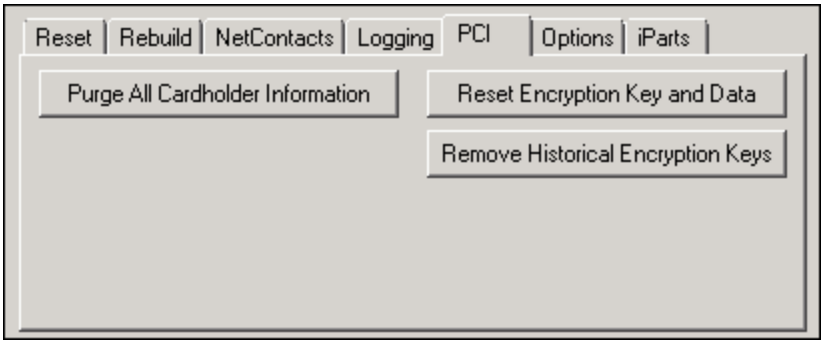



- **View Current Log File** – View logging information for current log file.
- **Log File History** – View list of log files, from most recent to oldest and select a file to view.
- **Clear Log File** – Back up the current log file to a history file, then clear the current log file. This is helpful to keep a shorter, recent list.

PCI tab

See Using DB Maintenance for PCI compliance.

Click to view image

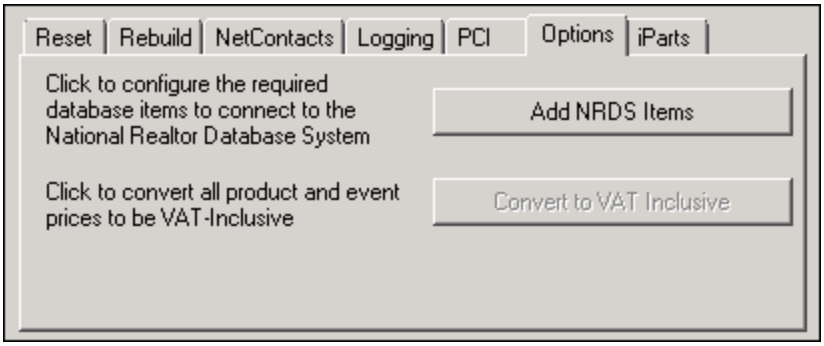



- **Purge All Cardholder Information** – Removes all existing cardholder information from your iMIS database (one-time process).
- **Reset Encryption Key and Data** – (annual process) Resets the encryption keys and re-encrypts cardholder data; writes these events to the PCIAuditLog.

- **Remove Historical Encryption Keys** – (annual process) Deletes the prior encryption keys and writes the event to the PCIAuditLog. Once done, email links encrypted with such keys cannot resolve.

Options tab

Click to view image

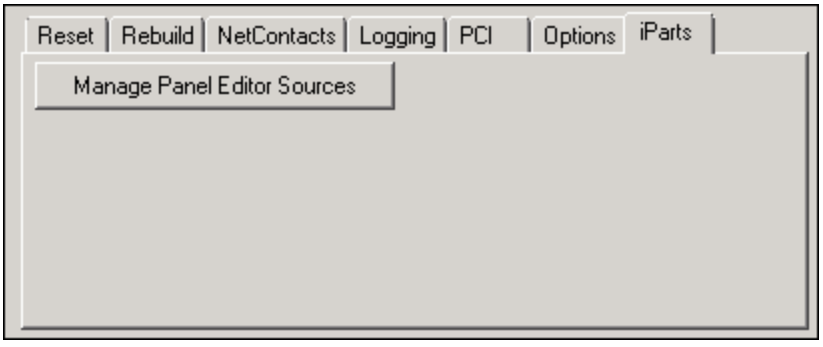



- **Add NRDS Items** – (NRDS clients only) Click this button to configure the required dataset items to connect to the National Realtor Database System. This creates the items needed for the data synchronization bridge. See Creating NRDS items.
- **Convert to VAT Inclusive** – (VAT organizations only) Click this button to convert all product and event prices to be VAT-Inclusive. If you enable **Convert to VAT Inclusive** in AR/Cash, lets you convert your existing product/event pricing to include the VAT tax amount. See Converting to VAT Inclusive.

iParts tab

This tab lists content item-specific maintenance tasks.

Click to view image




- **Manage Panel Editor Sources** – Click this button to manage sources for the Panel Editor content item. See Maintaining content items with DB Maintenance.

## DB Maintenance: Table Details

The iMIS **Table Details** page allows you to do analysis and apply fixes and changes at table level rather than globally. All iMIS tables are listed alphabetically. When you select a table, a mini-analysis runs on it and reports in the **Output** area.

Features of Table Details

(**Number of rows** – The top right shows a row count for the selected table.

**Output** – For the selected table, a brief table analysis runs, testing whether the table is missing, is missing columns, or has columns of an incorrect type. The analysis runs when you click on a table name in the list. This read-only area shows system information and quick analysis results.

**OK** – returns you to the main **DB Maintenance** page.

Click to view image

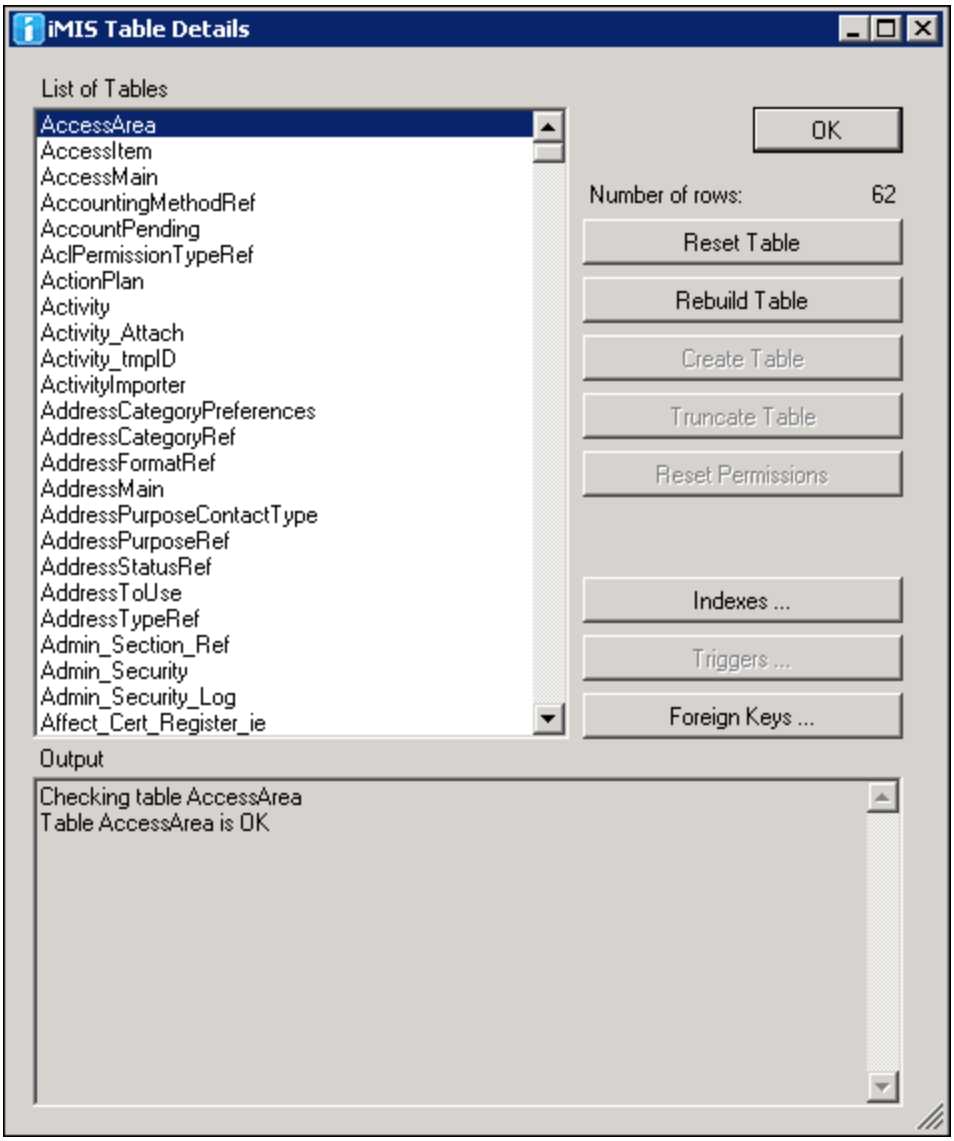



Table-level commands

- **Reset Table** – Performs a non-destructive reset of the table, replacing any missing triggers, indexes, permissions, or foreign keys.
- **Rebuild Table** – Performs a full rebuild of the table (rename the table, re-create the table schema, copy the data back over, re-establish all indexes, triggers, and permissions). It recreates the table from scratch, preserving data. If the table contains large amounts of data, allow ample time for this process to run.

> **Warning!**
>
> You lose any user-added columns when you rebuild a table. The **Rebuild Table** button is only enabled for those tables that aren't involved in indexed views. Tables that are referenced by indexed views cannot be rebuilt with this tool, and the button will be grayed out.

- **Create Table** – Recreates the table schema, indexes, triggers, and permissions. Enabled only if the table is missing.
- **Truncate Table** – Deletes all the data in the table, following a prompt for confirmation. Truncating a table with zero rows has no effect, but it runs the command just like any other table, and is useful for testing.
- **Reset Permissions** – Ensures the table is granted the proper permissions to the iMIS Group.
- **Indexes...** lets you work with indexes associated with the selected table. Enabled only if there are indexes.
- **Create Indexes** – Creates any indexes that are missing, ensuring that the table has all of the iMIS indexes it needs.
- **Drop Indexes** – Drops the indexes associated with the table, except for indexes that are constraints; preserves user-added indexes. This does not affect primary or alternate keys, which may be the target of a foreign key constraint.
- Rebuild Indexes – Rebuilds all indexes associated with the table.
- **Triggers...** lets you work with triggers associated with the selected table. Enabled only if triggers exist.
- **Enable Triggers** – Re-enables disabled triggers, which is useful after importing records. Enabled only if there are or should be system triggers on the table (ignores user triggers).
- **Disable Triggers** – Preserves triggers but disables them, which is useful when importing records. Enabled only if there are or should be system triggers on the table (disables user triggers as well).
- **Create Triggers** – Creates any triggers that are missing.
- **Drop Triggers** – Drops the triggers associated with the selected table.
- **Foreign Keys...** lets you work with foreign keys on the selected table as well as other tables that reference it. Enabled only if such foreign keys exist.

- **Enable Table FKs** – Re-enables any disabled foreign keys on the table and checks them all. Enabled only if there are or should be foreign keys on the table.
- **Disable Table FKs** – Disables any foreign keys, which is useful when importing records. Enabled only if there are or should be foreign keys on the table.
- **Create Table FKs** – Creates the foreign keys on the selected table. Enabled only if there should be foreign keys on the table.
- **Drop Table FKs** – Drops the foreign keys on the selected table. Enabled only if there are foreign keys on the table.
- **Create Referencing FKs** – Creates the foreign keys on all tables that reference the selected table.
- **Drop Referencing FKs** – Drops the foreign keys on all tables that reference the selected table.
- **Create ALL FKs** – Creates the foreign keys on the selected table and on all tables that reference it.
- **Drop ALL FKs** – Drops the foreign keys on the selected table and on all tables that reference it.

## Using DB Maintenance

> **Warning!**
>
> If the version number of the database is higher than that supported by DB Maintenance, do not use any database commands until you resolve the version conflict.

Running DB Maintenance

Do the following to run DB Maintenance:

1. From the **Start** menu, select **DB Maintenance Utility** in the iMIS program group.
2. When prompted, specify your server and database.
3. Log in using the **sa** user. The next time you run DB Maintenance, it remembers the connection and only requires your password.
4. Verify that the version number supported by DB Maintenance (which appears at top, in the title bar) is the same or greater than the version number displayed to the right of the **Database** name (which is that of the database you selected).

> **Warning!**
>
> Never run an older version of DB Maintenance against a newer database.

5. Click on any of the tabs to bring it to the front.
6. As needed, run the commands presented by the interface.
7. If you receive an error, check whether it's one of these known situations:

- **Column ... has the wrong default. Expected ... '', found ''**: a harmless error that might be triggered by upgraded databases.
- **"Wrong Ordinal"** error on certain table columns might be triggered by upgraded databases. This message is generally harmless and affects only the ability to load the affected tables with BCP and the format files created by ASI.

Rebuilding tables

> **Warning!**
>
> Never run an older version of DB Maintenance against a newer database.

Rebuilding a table

Do the following to rebuild a table:

1. Have all users log out of iMIS.
2. Schedule downtime for rebuilding tables containing large amounts of data.
3. Back up all tables that you plan to rebuild.
4. From the **Start** menu, select **DB Maintenance Utility** in the iMIS program group.
5. Select the table to be rebuilt.
6. Click **Rebuild Table**.

Rebuilding a customized table

Do the following to rebuild a customized table:

If you have added custom objects (Foreign Key constraints, triggers, indexes) to iMIS tables, you must remove the customizations and then add them back.

1. Record all custom database objects that you have added to your iMIS tables, because you must manually recreate them.

2. Manually remove your objects; for example, drop all foreign key constraints on the table (both to and from the table, so you must also check other referencing tables and drop the relevant foreign keys there as well).
3. Restart DB Maintenance, select the tables, and click **Rebuild Table**.
4. Manually recreate all custom foreign key constraints that you recorded.

Importing contact records

The **NetContacts** tab in DB Maintenance helps you import contact records so that your new Name table data is correctly synchronized with all associated .NET table structures.

To import contact records

1. Backup your database.
2. On your appserver, run the **DB Maintenance** tool.
3. After connecting, select the **NetContacts** tab.
4. Click **Disable Name Table Trigger** to disable triggers temporarily.
5. Import your records in iMIS Desktop: select **Utilities > Data Transfer Utilities > Import Utility**.
6. When the import is done, click **Enable Name Table Trigger** to restore the trigger.
7. Click **Synchronize NetContacts** to update the associated NET tables.

Purging user and contact records

DB Maintenance lets you permanently delete entries from .NET tables that were previously purged from Client/Server tables.

**Warning!**

Caution! Be sure to follow the order here: complete your Client/Server membership purge before proceeding to those in DB Maintenance, and always purge user records before purging contact records.

**Note:** iMIS contact records will continue to display in search, unless the record is marked for deletion. If you do not want the publishing service to include contact records that were previously deleted, but not marked for deletion, you must delete the **Contacts** search folder (**ASI\iMIS\indexServiceProtected\Search\Lucene**),

> and then delete the row in the **SystemConfig** table that is used by contacts publishing, for example, `DELETE FROM [dbo].[SystemConfig] WHERE [ParameterName] LIKE 'ContactsPublishing-<Publishing Server Code>'`. The **Contacts** search folder and the **SystemConfig** row will be recreated automatically.

Do the following to purge membership records across iMIS:

1. Purge member records in Name-related tables:

a. In Advanced Accounting Console, select **Utilities > Reports and Queries** from the menu.

b. Select **Purge, Membership Purge for MS SQL** and select **Run**. The Membership Purge is for the Name table and those tables related to it.

2. Purge user records in .NET tables.
   Click for details

a. In DB Maintenance, select the **NetContacts** tab.

b. Click **Purge Unused Users**.

c. Check the estimate for the number of records eligible for purging reported by the **Purge Confirmation** window, and troubleshoot if it seems wrong.

d. Click **Continue with Purge**. The purge can take minutes or hours, depending on the number of records involved. Entries from the following .NET tables are deleted:

- aspnet_Profile
- aspnet_Membership
- aspnet_Users
- Users
- UserMain
- UserRole
- UserToken

e. When the purge is done, check the history log that displays for the success and number of records that were purged.

3. Purge contact records in .NET tables.
   Click for details

a. Click **Purge Unused Contacts**.

b. Check the estimate for the number of records eligible for purging reported by the **Purge Confirmation** window, and troubleshoot if it seems wrong.

c. Click **Continue with Purge**. The purge can take minutes or hours, depending on the number of records involved. Entries from the following .NET tables are deleted:

- GroupMember
- GroupMemberDetail
- RFMMain
- Individual
- Institute
- ContactBiography
- ContactCommunicationReasonPreferences
- ContactLog
- ContactPicture
- ContactSalutation
- ContactMain
- PrimaryInstituteContactKey is set to null for all related institute records

d. When the purge is complete, check the history log that displays for the success and number of records that were purged.

Using DB Maintenance for PCI compliance

Depending on which option you choose in AR/Cash Setup, implementing advanced PCI Compliance support requires changes to your iMIS database. Do one of the following:

- Remove all existing cardholder information from your iMIS system that predates your new security measures.
- Reset the encryption keys (including removal of previous keys) and re-encrypting cardholder data each year, as required.
  DB Maintenance lets you complete these processes easily and reliably through the **PCI** tab.

Resetting encryption keys and data

To maintain PCI compliance with stored cardholder data, you must complete all of the steps below.

1. Choose a time when the database can be offline for several hours. Re-encryption can take minutes or hours, depending on your data; once started, it must not be stopped.
2. In DB Maintenance, open the **PCI** tab.

3. To start the purge, click **Reset Encryption Key and Data**. A warning prompts you to confirm the process.
4. Allow the process to complete without interruption.

> **Warning!**
>
> You risk data corruption if you interrupt the process or close DB Maintenance, which appears unresponsive.

The output of the process displays in the main window of the DB Maintenance utility.

5. Click **Remove Historical Encryption Keys**, or, if postponing that purge, skip to the next step. (If you do the purge later, be sure to recycle the application pool then, too.)

> **Warning!**
>
> Caution! Once you remove previous keys, clicking on any encrypted links that have already been embedded in emails will no longer work. The user will see the error `Your session has timed out. Please try your operation again.`

6. Recycle the IIS Application Pool for each application server that uses this database.

Purging cardholder data

> **Note:** If you implement PCI Compliance with audit logging and later switch to storing no data, be aware that this purge routine leaves the existing audit log (**PciAuditLog** table) intact.

Deferred transactions are lost in a purge, so you need to resolve deferred data and disable settings that allow it.

1. Find and change any gateway that is configured for Deferred Authorization:

a. In iMIS Advanced Accounting Console, go to **Finance > Options > Configure accounting options** and click **Credit Card Auth**.
b. Under **Current Accounts**, select the first gateway listed.

c. If it is set to **Deferred Authorization**, change it to **Immediate** or **Manual Authorization**.
d. Repeat for all other gateways.
2. Submit any deferred transactions that are pending: In iMIS Advanced Accounting Console, open AR/Cash > Credit card reporting and run Print Deferred Pre-authorization Report and Submit Deferred Authorizations. Any deferred transaction remaining after the purge has no payment information, so it must be re-entered manually.
3. In DB Maintenance, open the **PCI** tab.
4. To start the purge, click **Purge All Cardholder Information**. A query runs and the **Purge Payment Card Information** window opens, reporting the number of records with cardholder information in each table that will be cleared by the purge.
5. If the report surfaces no problems and you want to complete the purge, select **Continue with Purge** to clear the cardholder information from the database. The output of the process displays in the main window of the DB Maintenance utility.

Fields affected by the purge

**Table: [dbo].[ASI_temp_trans] if exists**

- [CC_NUMBER] - masked (shows last 4)
- [CC_EXPIRE] - masked
- [CC_NAME] - cleared

**Table: [dbo].[Trans]**

- [CC_NUMBER] - masked (shows last 4)
- [CC_EXPIRE] - masked
- [CC_NAME] - cleared
- [ENCRYPT_CC_NUMBER] - cleared
- [ENCRYPT_CC_EXPIRE] - cleared
- [ENCRYPT_CSC] - cleared
- [ISSUE_DATE] - cleared
- [ISSUE_NUMBER] - cleared

**Table: [dbo].[Orders]**

- [PAY_NUMBER] - masked (shows last 4)
- [CREDIT_CARD_EXPIRES] - masked
- [CREDIT_CARD_NAME] - cleared

- [ENCRYPT_PAY_NUMBER] - cleared
- [ENCRYPT_CREDIT_CARD_EXPIRES] - cleared
- [ENCRYPT_CSC] - cleared
- [ISSUE_DATE] - cleared
- [ISSUE_NUMBER] - cleared

**Table: [dbo].[Basket_Payment]**

- [PAY_NUMBER] - masked (shows last 4)
- [CREDIT_CARD_EXPIRES] - masked
- [CREDIT_CARD_NAME] - cleared
- [ENCRYPT_CREDIT_CARD_EXPIRES] - cleared
- [ENCRYPT_PAY_NUMBER] - cleared
- [ENCRYPT_CSC] - cleared
- [ISSUE_DATE] - cleared
- [ISSUE_NUMBER] - cleared

**Table: [dbo].[Order_Payments]**

- [PAY_NUMBER] - masked (shows last 4)
- [CREDIT_CARD_EXPIRES] - masked
- [CREDIT_CARD_NAME] - cleared
- [ENCRYPT_CREDIT_CARD_EXPIRES] - cleared
- [ENCRYPT_PAY_NUMBER] - cleared
- [ENCRYPT_CSC] - cleared
- [ISSUE_DATE] - cleared
- [ISSUE_NUMBER] - cleared

**Table: [dbo].[OrderCheckout]**

- [CreditCardNumber] - masked (shows last 4)
- [CreditCardExpiration] - masked
- [CreditCardName] - cleared
- [CreditCardAddress] - cleared
- [CreditCardAddress2] - cleared
- [CreditCardAddress3] - cleared
- [CreditCardCity] - cleared

- [CreditCardState] - cleared
- [CreditCardPostalCode] - cleared
- [CreditCardCountry] - cleared
- [ISSUE_DATE] - cleared
- [ISSUE_NUMBER] - cleared

Creating NRDS items

(NRDS clients only)The National Association of REALTORS® (NRDS) bridge lets you share information between iMIS and NRDS through an automatic synchronization of changes made in either database. Setting up this data sharing includes a one-time command in DB Maintenance to create the needed items:

1. After downloading and installing the WebSphere MQ Client, restart you application server.
2. In DB Maintenance, select the **NRDS** tab and click **Add NRDS Items**.
3. Check the **Output** section below the button to verify that no errors occurred.

For complete setup and configuration details, see **NRDS bridge for data synchronization**.

Converting to VAT Inclusive

(VAT organizations only) If you entered product and event pricing in iMIS 15.2.5 and earlier, it was exclusive of VAT. If you now enable VAT Inclusive pricing, you need to do a one-time conversion of your existing pricing to include the VAT tax amount.

See Configuring VAT accounting options. When you enable the option in AR/Cash, iMIS prompts you to run this conversion.

**Warning!**

Always back up your database and ensure that you can restore it before running any data conversion.

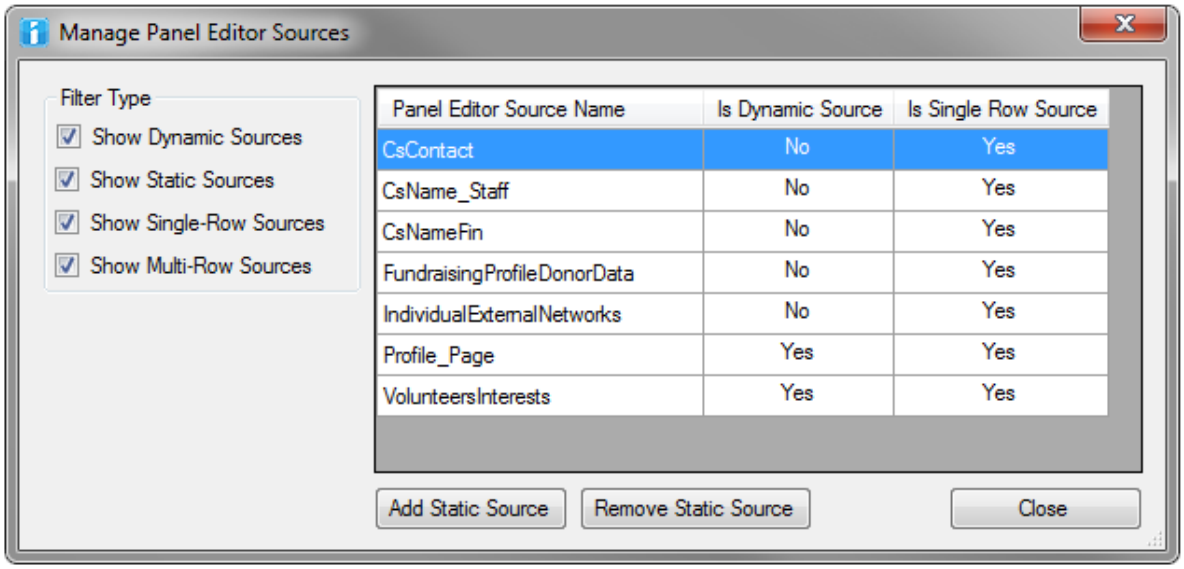
**Upgrade note for VAT:** Now that iMIS stores all order and order line amounts as VAT-inclusive, DB Upgrader takes care of updating all of your existing order data to be consistent with your new order data. Flags on the record ensure that the update occurs only

once, and your original data is backed up (**Orders_BAK** and **Order_Lines_BAK**). Note that this universal change to storing order amounts as VAT-inclusive is unrelated to whether you set AR/Cash VAT Options to be VAT Exclusive.

Maintaining content items with DB Maintenance

When you click **Manage Panel Editor Sources**, the following window is displayed:

Click to view image




The source name is displayed in the first column. Then in the following columns, other information is displayed:

- **Is Dynamic Source** – This column indicates whether the source is a dynamic source (for example, created by Panel Editor), or a static source (for example, just a business object that Panel Editor is able to use).
- **Is Single Row Source** – This column whether the source is a single-row source (for example, there is one row for each contact), or a multi-instance source (for example, there are multiple rows for each contact).

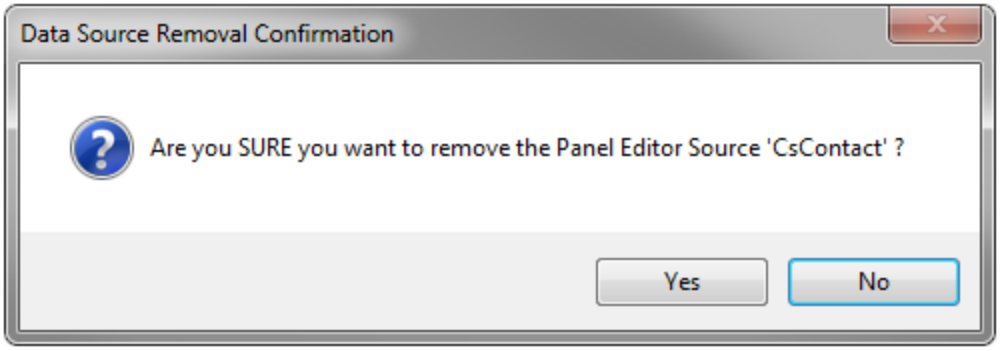
The check-boxes allow you to filter the list down to only what you're interested in.

Click **Add Static Source** to add another source. For example, if you create a new business object that has an ID and represents data associated with Contacts, you can add the source here. This adds a row to the ObjectMetaData table.

Click **Remove Static Source** if you have a business object (non-dynamic source) selected. This allows you to remove business objects to which you don't want Panel Editor have access. If the selection is a dynamic source, the button reads **Purge Dynamic Source** instead.

If you click **Remove Static Source**, the following confirmation dialog is displayed:

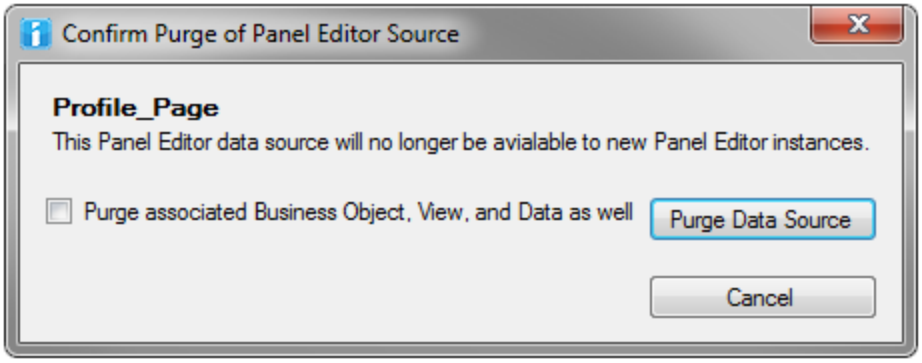
Click to view image




Click **Yes** to remove the associated row from the ObjectMetaData table. The source is no longer available to Panel Editor. No data is destroyed, and the source can be re-added using the **Add Static Source** button.

If you click **Purge Dynamic Source**, the following confirmation dialog is displayed:

Click to view image

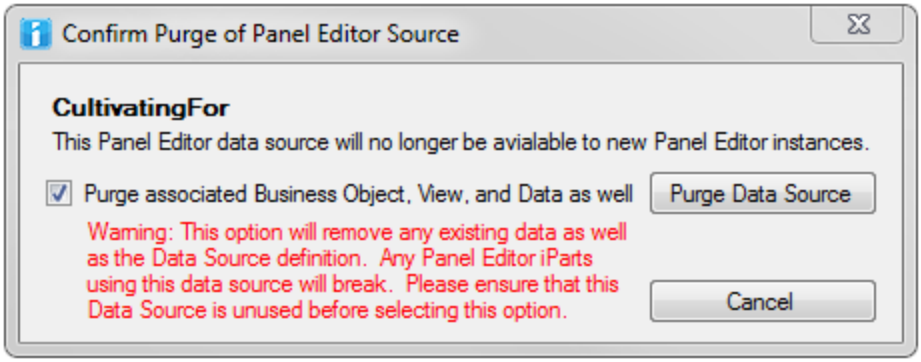



If you click **Purge Data Source** while the checkbox is unselected, the dynamic data source is removed from the ObjectMetaData table. The dynamic source will no longer be available to Panel Editor to create new panel editor instances. However, the backing

Business Object, View, and Data are all untouched. There is currently no way to restore access to a purge dynamic data source in this state, except for re-adding the row manually through SQL. Any panel editors currently using the source should continue to work, but might not be editable.

If the checkbox is selected, then a red warning is displayed:

Click to view image




Selecting this option will also delete the backing Business Object documents, drop the View, and delete all associated Data. This is useful when performing testing, and you have a number of test objects you want to remove.

> **Note:** Any Panel Editors using the source will break, and it's the responsibility of the customer to ensure that no Panel Editors are using the source when it is purged.

Purging Single-Instance Panel Editor Source Orphans
Do the following to purge orphaned properties from your Panel Editor source:

1. Launch **DB Maintenance**.
2. Connect to the database.
3. Click the **iParts** tab.
4. Click **Manage Panel Editor Data**.
5. Verify there are orphaned properties in your selected source.
6. Select the source that has the orphaned property.
7. Click **Purge Orphans**.

8. Click **Purge Property and Data**. The following message is displayed:

   > Are you SURE you want to remove all the data associated with orphaned property '<*Property Name*>'?

9. Click **Yes**. This will remove all data associated with the orphaned property. This action cannot be reversed. If you return to the Panel Editor content item, and recreate the property, there will be no data available for that property.
10. Click **Close**.
11. Select the source that has the orphaned property.
12. Click **Purge Data**. This deletes all the data for the source. The following message is displayed:

    > Are you SURE you want to remove all the data associated with Panel Editor Source '<*PanelEditorSourceName*>'?

13. Click **Yes**. This will remove all data associated with the Panel Editor source. This action cannot be reversed. If you return to the Panel Editor content item, and view the source, there will be no data available.

## ANSI Conversion Utility - ConvertTableToANSI

iMIS Desktop requires ANSI settings to be enabled at all times. Whenever Desktop creates a connection (ODBC or otherwise), it does so with all ANSI options turned ON. To ensure that that the entire iMIS database has the correct ANSI settings, the upgrade utility rebuilds all tables and recreates all stored procedures, triggers, functions, and views.

> **Note:** Because of this extensive rebuilding, expect upgrading to be significantly slower for very large databases. Before upgrading, check that you have ample free disk space relative to the size of your database, as these tables will be copied during the process of conversion and rebuilding.

### ANSI settings required by iMIS

iMIS requires that all tables be fully ANSI compliant, so they must be created with **SET ANSI_NULLS ON** and **SET ANSI_PADDING ON**. The **ConvertTablesToANSI** command-line utility rebuilds every table in the database that is not ANSI compliant, including

user-defined and third-party tables.

If you are creating your own tables, procedures, triggers, views, and so forth, be sure to set these ANSI settings:

```
SET ANSI_DEFAULTS ON
SET IMPLICIT_TRANSACTIONS OFF
SET CONCAT_NULL_YIELDS_NULL ON
SET ARITHABORT ON
SET NUMERIC_ROUNDABORT OFF
```

### Running a standalone ANSI conversion

The **DB Upgrader** runs the **ConvertTablesToANSI** utility as part of an iMIS upgrade, but you can run it standalone as well, from the command line. To ensure a smooth upgrade for a large and complex database, you can do a pre-upgrade conversion on a backup of the database to anticipate problems.

1. Create a backup, an off-line copy of your database.
2. If you haven't upgraded, run the iMIS installer to expand copies of the database utilities.
3. Locate the **ConvertTablesToANSI** utility, in the **C:\Program Files (x86)\ASI\iMIS\Net\iMISDBUpgrade\Utilities** folder.
4. From the command line, run the utility against your database backup:

   ```
   ConvertTablesToANSI.exe -S sqlServerName -U sqlUser -P sqlPassword -D dbName
   ```

   If your database copy converts with no errors, you can use this converted database for your upgrade, which saves the time of reconverting. If there is an error, contact Support for assistance before upgrading.

### Troubleshooting ANSI Conversion errors

The ANSI conversion utility rebuilds every table that is not ANSI compliant. These tables are listed in the upgrade log:

```
Rebuilding Tables For Full ANSI Compliance ...
  Converting Table 1 of 89: Activity
  ...
  Converting Table 88 of 89: UserMain
  Converting Table 89 of 89: W_Reports
  ANSI Conversion Successful
Step 4 Done.
```

The total number of tables rebuilt varies by database. Any errors appear the build log, flagged with three asterisks (***), before both the description of the problem and the end of the step:

```
  Converting Table 219 of 234: UsedSourceCode
  *** Unable to copy data into table UsedSourceCode
  ...
  Converting Table 234 of 234: tempTypeNamesList
  *** Errors during ANSI Conversion
Step 4 Done.
```

After such an error, the upgrade continues.  Although the completed upgrade reports being failed, the upgrade will be valid as long as there are no other errors. When a table fails to convert, the utility restores it to its original, unconverted condition, unless connectivity to the database is lost.

## Query Browser utility

The Query Browser utility enables you to analyze all IQA queries across the entire Document system of any iMIS database. This tool helps you find your known, good queries, and identify broken queries that need to be deleted or fixed without having to locate the queries through the Document system.

**Note:** This tool is designed to be used to find and fix broken queries. For general query editing, you should always use IQA.

### Running the Query Browser

Do the following to run the Query Browser:

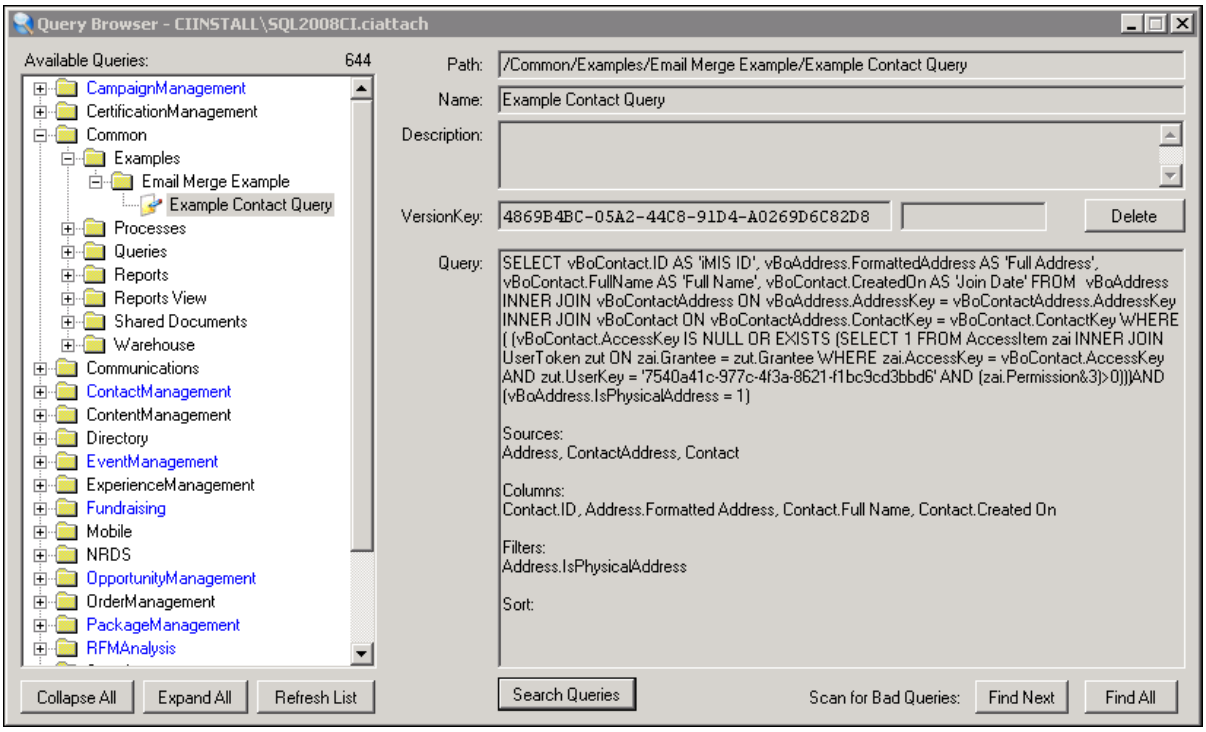
1. Back up the database so that it can be restored. You cannot undo permanent deletions.

> **Warning!**
>
> If you copy **QueryBrowser.exe** to a new system, you must reconfigure it:

a. Copy the **C:\Program Files (x86)\ASI\iMIS\Net\bin\QueryBrowser.exe.config** file.
b. Edit the connection string in the **QueryBrowser.exe.config** file to point to the correct database on the new system.
2. Run Query Browser:
a. Go to the **...\net\bin** folder.
b. Launch **QueryBrowser.exe**.

> **Note:** Query Browser can take some time to open, because all queries in the database must be loaded.

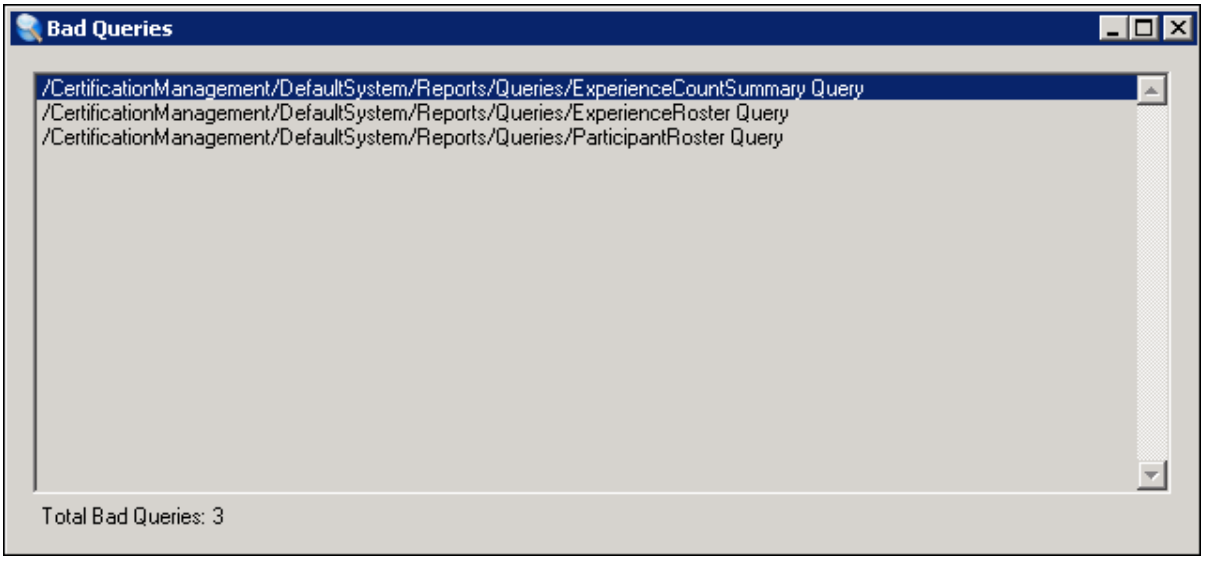
3. Verify the **[*server*].[*database*]** that is displayed in the title bar is the database to which you want to be connected.
4. After Query Browser has loaded all queries, navigate using the tree control.
5. Click any query to view the panel.
Click to view image




From this main window, you can navigate through available queries, or search for queries:

- Click **Find All** to search for a list of all broken queries. When you click **Find All**, a **Bad Queries** window is displayed, listing all bad queries.
- Double-click any query to navigate to that query in the main window.

Click to view image



You can also do the following from the main window:

- Click **Delete** to permanently delete a query.

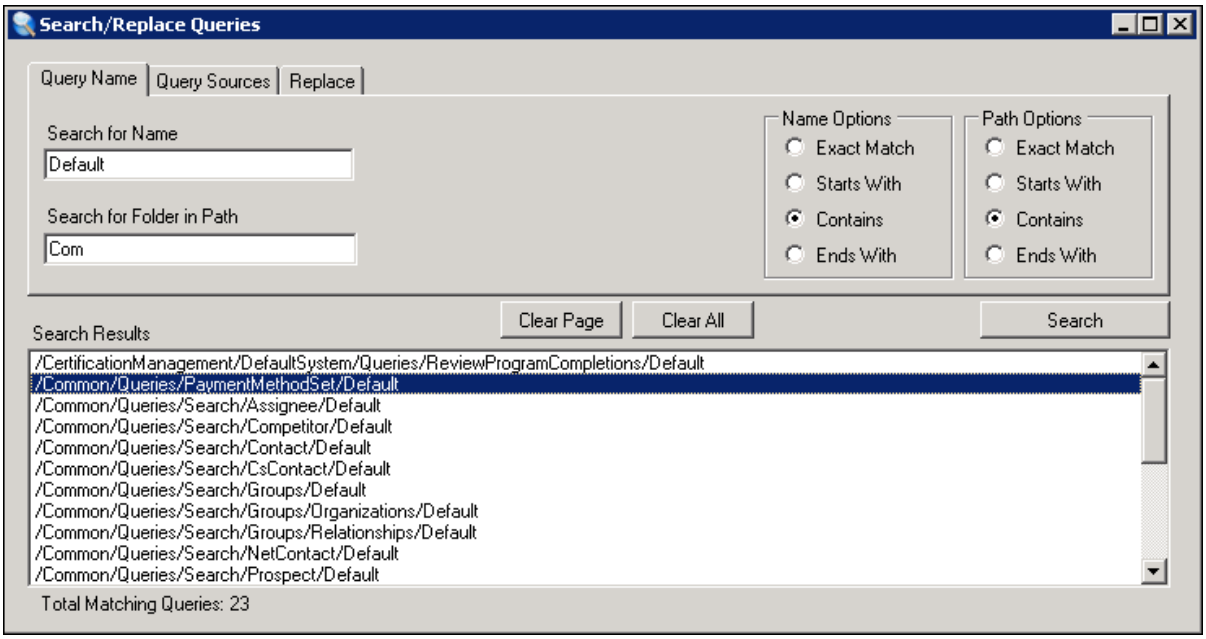
> **Warning!**
>
> There is no undo function. If you delete a query that iMIS requires, you might break the iMIS installation.

- Click **Search Queries** to open the **Search/Replace Queries** window. You can then search for all queries that use given sources. Double-clicking a query in the results list locates it in the main tree view, with the details displayed.
- Click **Find Next** to search for bad queries from the currently selected tree node. The search will start from the top of the **Available Queries** navigation tree if no node is selected.
- Click **Find All** to scan the entire set of queries to locate any problem queries, and then display the results in a list. Double-clicking a result locates the query in the main tree view.
- Click **Refresh List** to reload all the queries and scan the queries again. This is useful if you made changes to the Document system, such as fixing a query, restoring a missing DLL, and so forth.

### Searching for Queries

You can search for query names, paths, and up to three sources joined with an **and** operation. Click **Search Queries** to open the **Search/Replace Queries** window.

Click to view image



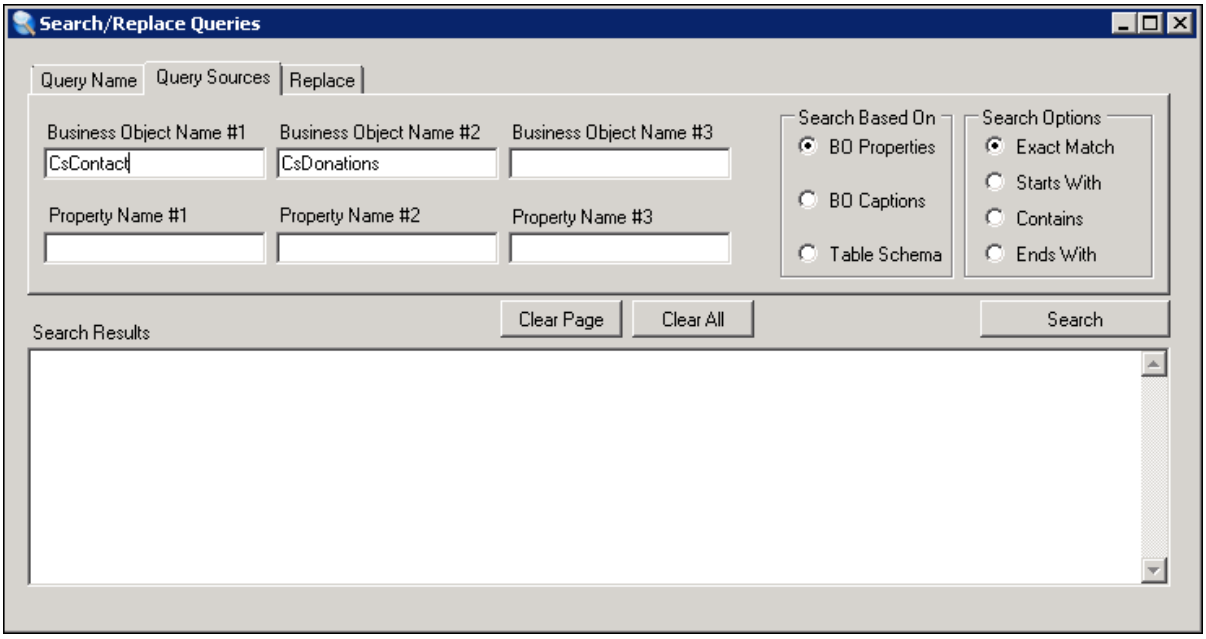

The **Query Name** tab allows you to specify a query or path in which to search. In the **Search for Name** field, the value entered will match any query name, based on the specified **Name Options**. In the **Search for Folder in Path** field, the value entered will match any folder based on the **Path Options**. For example, create a search using **Contains** as the name and path option:

a. Set **Name Options** to **Contains**.
b. Set **Path Options** to **Contains**.
c. Enter **Default** in the **Search for Name** field.
d. Enter **Com** in the **Search for Folder in Path** field.
e. Click **Search**.

The search returns the query **$/Common/Queries/PaymentMethodSet/Default**, as the query name contains **Default**. The search will not return **$/Content/Queries/PaymentMethods/Default**, as the path does not contain **Com** in the pathname. If you enter text in both fields, the query must pass both filters. If you leave both fields blank, any query will match.

> **Note:** In order to perform a search with both of these fields empty, you must have some value entered on one of the tabs. If there is no value entered on any tab, the **Search** button is disabled.

Click to view image




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The **Query Sources** tab lets you specify up to three business objects or table names, and up to three properties or column names. The values are joined with an **and** operation, so if you use the **Exact Match** search option, and enter **CsContact** in the **Business Object Name #1** field, and enter **CsDonations** in the **Business Object Name #2** field, the search will only find queries that use both of those business objects as sources. There is no way to perform an **or** search. The more information you provide, the more narrow the search parameters become.

> **Note:** This tab can be used in addition to information on the **Query Name** tab. If you want to find a query named **Default** that uses the **CsContact** business object, then you could have values on both tabs.

---

The **Search Based On** option tells the search utility whether the values are business objects or table names, and properties or column names. The search field names change when you specify a different **Search Based On** option:

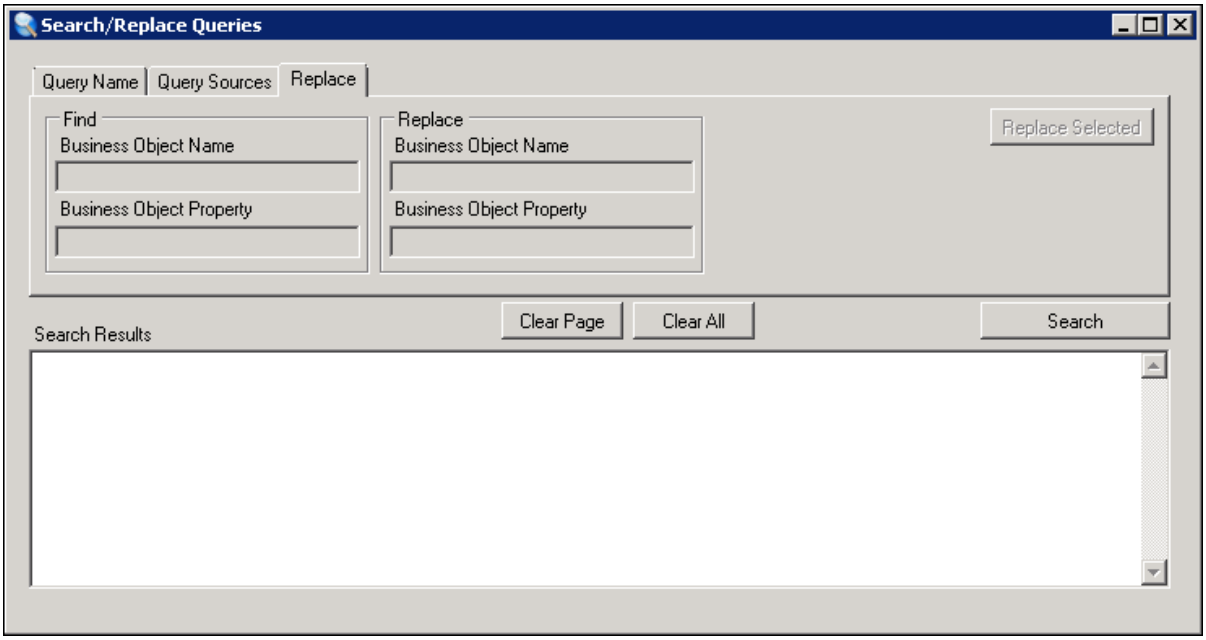
- The **BO Properties** option will search based on the Business Object Property names as defined in Business Object Designer.
- The **BO Captions** option will search based on the label provided in the UI. This option is useful if you do not know the BO Property name, and are using what is visible in the UI.
- The **Table Schema** option will search based on the underlying SQL Table and Column names in the database.

The **Search Options** apply to all fields on this tab. You cannot perform an **Exact Match** on a table name or business object along with a **Starts With** search on the column name or property.

### Using find and replace to fix broken queries

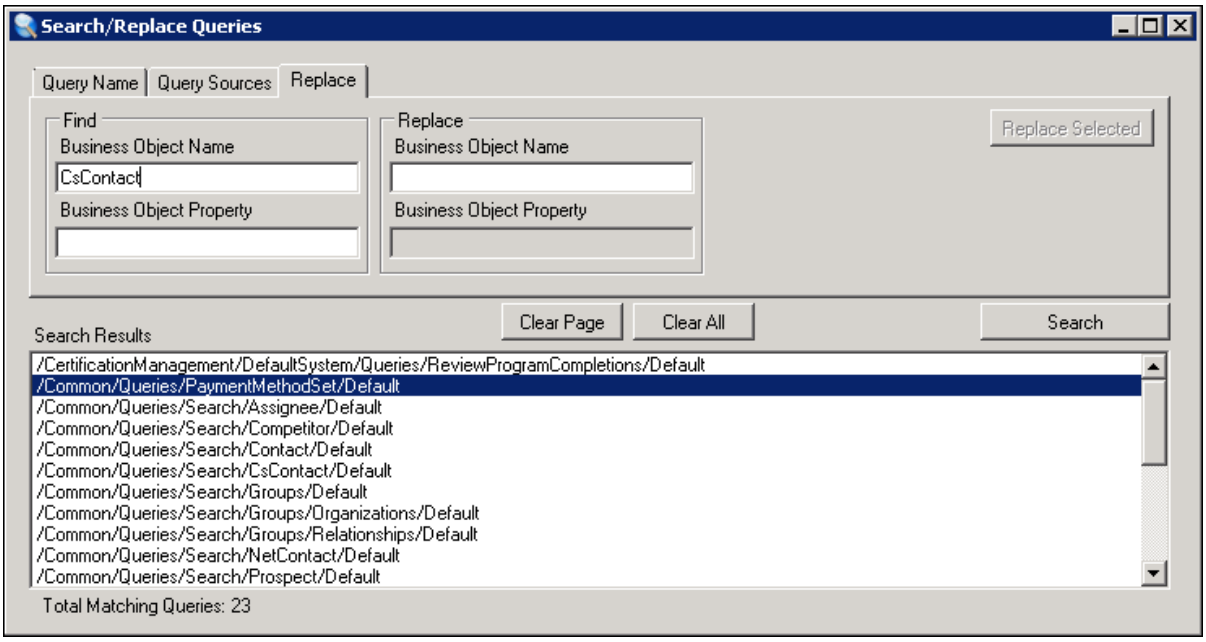
All controls on the **Replace** tab are disabled until you select one of the result queries in the **Search Results** box.

Click to view image



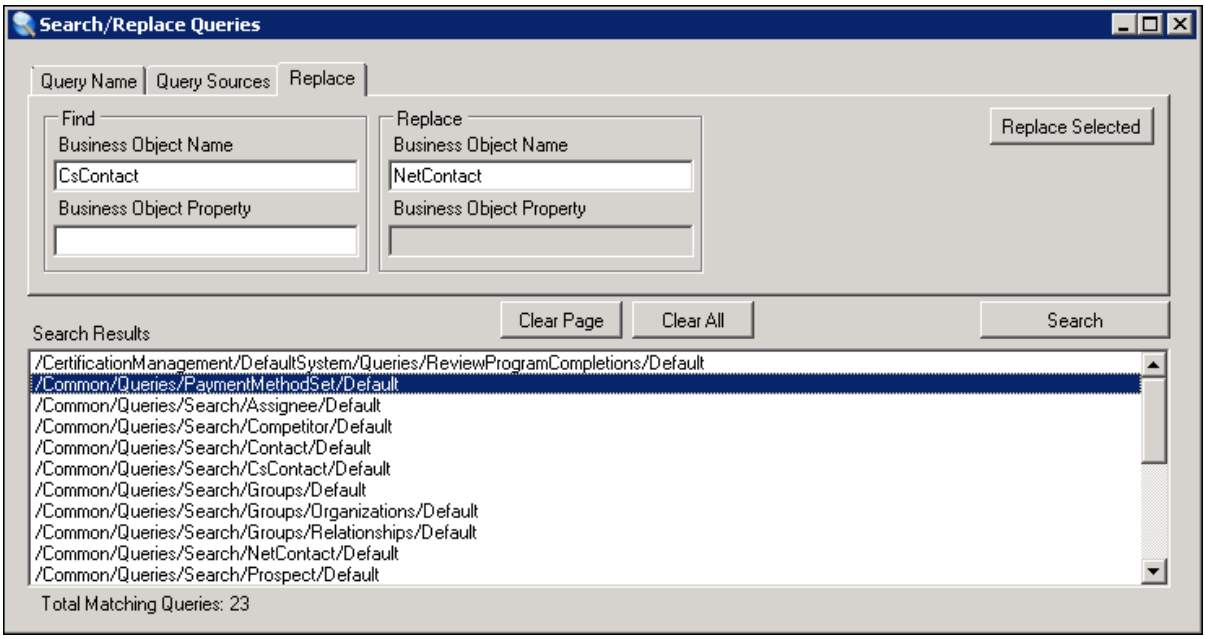
When a single query is selected, the **Find** text boxes are enabled. When a value is entered in one of those text boxes, the corresponding **Replace** text boxes are enabled. This allows you to replace specific sources and properties with other sources and properties.

Click to view image




This is used to repair a query that is broken because a business object or property was renamed. If you specify only a **Business Object Name**, the utility will replace all instances of that Business Object Name (regardless of property) in the query with the new one. If you specify only a **Business Object Property**, the utility will replace all matching properties (regardless of business object) with the new one. If both are specified, then only that specific property on that specific business object is replaced.

Click to view image




The **Replace** functionality should be used with care. You can experience problems if you replace a critical item with an item that does not exist, for example, if you misspell the replacement **Business Object Name** or **Business Object Property**. It is recommended that you have a good backup before performing this kind of activity on queries. This functionality is useful for repairing queries that cannot be viewed in IQA because they're broken, and should only be used for this purpose. If a query is not broken, it's always better to edit or update the query using IQA.

- Click **Clear Page** to clear the current tab, leaving data in the other tabs.
- Click **Clear All** to clear the data in all the tabs, and clear out the results pane as well.
- Click **Search** to search all queries using the specified filters in the **Query Name** and **Query Sources** tabs.
- Double-click on any query in the **Search Results** list to open that query in the main Query Browser window.

### Which iMIS Tables are already referenced by your Business Objects?

The following SQL can be used to find which iMIS tables are used by your existing business objects. If you are looking to create a new business object or IQA query that references a specific iMIS table, you can first use the following SQL to see which business objects are referencing the table you are searching for. Then, you can use Query Browser

to determine which queries are using the given business object.

```
SELECT DocumentMain.DocumentName, DocumentMain.DocumentTypeCode,
DocumentMain.DocumentStatusCode
        , DocumentStatusRef.DocumentStatusDesc
        , [Path] = [dbo].[asi_DocumentPathFromHierarchyKey](Hier-
archy.HierarchyKey)
        , o.[name] AS ObjectName, s.[definition] As ObjectDefinition

FROM Hierarchy
        INNER JOIN HierarchyRoot ON Hierarchy.RootHierarchyKey = Hier-
archyRoot.RootHierarchyKey
        INNER JOIN DocumentMain ON Hierarchy.UniformKey =
DocumentMain.DocumentVersionKey
        INNER JOIN DocumentStatusRef ON DocumentMain.DocumentStatusCode =
DocumentStatusRef.DocumentStatusCode
        INNER JOIN sys.objects o ON 'vBo' + DocumentMain.DocumentName = o.
[name]
        INNER JOIN sys.sql_modules s ON o.[object_id] = s.[object_id]

WHERE DocumentMain.DocumentStatusCode = 40
AND       DocumentMain.DocumentTypeCode = 'BOD'
AND       s.[definition] LIKE '%Name_Fin%' -- Table name you are looking for

Order by DocumentMain.DocumentName
```

The following query lists all business objects and the schema (tables or views) they reference, in order by the referenced schema:

```
SELECT d.DocumentName AS [BOName], o.[name] as [BOView],
    CASE WHEN CHARINDEX(' WHERE ', m.[definition]) = 0
      THEN SUBSTRING(m.[definition], CHARINDEX(' FROM ', m.[definition]) + 6,
```

```
LEN(m.[definition]) - 5)
        ELSE SUBSTRING(m.[definition], CHARINDEX(' FROM ', m.[definition]) + 6,
                CHARINDEX(' WHERE ', m.[definition]) - CHARINDEX(' FROM ', m.
[definition]) - 5)
    END AS [ReferencedSchema]
 FROM DocumentMain d
    INNER JOIN sys.objects o ON 'vBo' + d.DocumentName = o.[name]
    INNER JOIN sys.sql_modules m ON o.[object_id] = m.[object_id]
WHERE d.DocumentTypeCode = 'BOD' and d.DocumentStatusCode = 40
ORDER BY [ReferencedSchema]
```

## Using the Workbook Converter

The iMIS Workbook Converter lets you easily import contact data from Excel spreadsheets within a workbook into iMIS 20-300. Most of the documentation for this tool is embedded within the workbook, on the **Instructions** tab or as a note that appears when you hover over the column headers in each worksheet. Implementation instructions are included here. Be sure to read the Before you begin section and the FAQs in order to ensure a smooth conversion process.

### Before you begin

1. Contact ASI or your AiSP to obtain the Workbook Converter tool.
2. (If iMIS 20-300 is ASI-hosted) Review and complete the pre-conversion checklist.
   - Prepare iMIS 300 and scrub the source data.
3. (If iMIS 20-300 is ASI-hosted) Contact/coordinate with ASI Hosting.
   - Hosting will back up the database once it is ready for conversion.
   - You provide the IP address you will be connecting from (this can be a single IP or a range of IPs). Hosting will have to edit the **web.config** to allow conversion from the remote IP address.
4. (If iMIS 20-300 is self-hosted) Prepare the database into which you want to convert.
   - It is recommended that you start with an empty database from the iMIS installer.
   - Review and complete the pre-conversion checklist.
   - Back up the final prepared database.

- If the customer anticipates using the **https** protocol to communicate with iMIS, a valid security certificate must be installed for the website.

5. Run conversions in test mode.
6. Identify and fix errors.
7. Run conversion and update your iMIS 300 database.

a. Save all logs.
b. Deal with non-test-mode errors that occur.
c. Contact Hosting to restore the database and clear metadata between update runs.

8. Review and complete the post-conversion tasks.
9. Contact ASI Hosting to make final backup and secure the database.

**Pre-conversion checklist**

> **Warning!**
>
> Complete this setup in the new site (with a new, empty database) provided by ASI. If you were previously provided with a test site/database and any setup was done there for testing, this setup/configuration will need to be re-applied to the new site.

1. In the Advanced Accounting Console, set up the organization name (**Settings > Membership > Configure membership options > Address and Notes**).
2. Set the financial entity (go to **File > System Setup**, and click **Organization Names**).
3. Set up the default organization (go to **File > System Setup**, and click **Organization Names**).

a. Add a new **Org Code**.
b. Select **Default Organization** for the new **Org Code**.

4. Set up any new member types you will be importing (**Settings > Membership > Customer types**). **Customer types** should correspond to values in the **MemberType** column in the **Contact** worksheet.
5. Configure the appropriate membership options (**Settings > Membership > Configure membership options**).

- Click **Additional Windows** to set up user-defined tables if you are not using dynamic user-defined tables.

> **Note:** If you use the Workbook Converter tool to create data in a single-instance, user-defined table, you must deselect **Always create** in the table definition (in the Advanced Accounting Console, go to **Settings > Membership > Configure membership options > Additional Windows**, and click **Define Tables**) before beginning the conversion. You can re-select **Always create** after the conversion has successfully completed. See To create a user-defined table for more information on user-defined tables.

- Click **Address and Notes** to define address purposes and specify communication flow preferences. Select the appropriate options to **Synchronize Phone Numbers & Email**.
- Click **Basic Options** to review your phone number masking policy before running the conversion. If existing phone numbers are already formatted, you might want to **Disable automatic phone number formatting**. For sites with a high volume of international numbers, it is recommended that you disable masking, so that numbers are brought in exactly as they appear in the source data.

6. Review lookup/validation table information (**Settings > Membership > Set up tables > Lookup/validation tables**):

a. Review default prefixes and suffixes and add new prefixes and suffixes if needed. Select the **PREFIX** or **SUFFIX** table from the drop-down.
b. Set up customer categories if used. Select the **CATEGORY** table from the drop-down.
c. Define additional address purposes if used. Select the **ADDRESS_PURPOSE** table from the drop-down.
d. Define default roles. These are assigned to members without roles defined in the source data. Select **MEMBER_STATUS** from the drop-down.

7. Set up activity types (**Settings > Membership > Activity types**).
8. Define the format and starting number for generating the ID for new contacts (**Settings > Membership > Configure membership options > Basic Options**). The **Auto Assign Member Numbers** option must be enabled.
9. Review system lists for countries and state/provinces (**Settings > Membership > Set up tables> Country names** and **State/province codes**).
10. Set up all possible countries and State/Province names that you anticipate needing. You can add this information into the **StateProvinceRef** table directly using a SQL statement.

11. In the Staff site, set the following:
    - Default country (go to **Settings > Contacts > General > Set the default country**)
    - Default currency (go to **Settings > Commerce > General > Default currency code used by RiSE components**)
12. Ensure your database is accurately prepared.
13. Stop the IIS ASI Scheduler. Use the following command:

    ```
    iisreset -stop
    ```

14. Do one of the following to disable the **ContactMain** trigger:
    - In SQL Server Management Studio, go to **[*Database*] > Tables > dbo.ContactMain > Triggers**. Right-click on **asi_ContactMain_Insert_Update_Delete** and click **Disable**.
    - You can also run the following query in SQL Server Management Studio:

    ```
    ALTER TABLE ContactMain DISABLE TRIGGER asi_ContactMain_Insert_Update_Delete
    ```

15. Disable the **iMISPublishQueue** and **iMISPublishService**. In SQL Server Management Studio, go to **[*Database*] > Service Broker > Queues** and **Services**, and delete the following:
    - **dbo.iMISPublishQueue**
    - **dbo.iMISPublishService**
16. Edit the ASI Scheduler web.config file. You must modify the **PublishServerCode** value to some letter that will not match what is set in the PublishServerRef table. The default file location is **C:\AsiPlatform\Asi.Scheduler_iMIS\web.config**.

    ```
    <SystemParams>
        <add key="PublishServerCode" value="A" />
        <!--Settings for workflow service -->
        <add key="UID" value="MANAGER" />
    ```

17. Restart the IIS ASI Scheduler. Use the following command:

    ```
    iisreset -start
    ```

**Workbook Converter overview**

The Workbook Converter is a tool that reads data from an Excel workbook into iMIS 300. The data is populated by exporting data to Excel, and then manually revising data if/as needed.

The tool converts data from an Excel workbook (which can in turn be populated with data from an iMIS LAN site or any non-iMIS data source), based on the assumptions/logic outlined below and in the detailed pages for the tool.

The conversion can be used to populate the iMIS 20-300 database with the following information:

- Contacts (people and organizations)
- Historical activity
- User-defined data

The following are some of the areas that are not included in the conversion process:

- Open orders/invoices/accounts receivable
- Setup (products, events, dues cycles, and so forth)
- Notes
- Subscriptions – billing detail on open items
- Lookup/validation tables
- Relationships
- Change log
- Passwords (but you can generate new ones based on email addresses)
- Adhoc searches and Reports/letter templates
- Pictures
- Transactions (such as fill event, donations, orders, and membership fees)

Creation of contacts

The Workbook conversion allows you to specify details for each contact, defining which contacts are created as persons or organizations, and redirecting activity/history/user-defined data to the appropriate ID.

Phone numbers, email addresses, fax numbers, etc are stored in their associated address records.

Contacts whose status is either **Inactive** or **Marked for Deletion** should be reviewed. The Workbook conversion only converts information for **Active** contacts.

User-defined data

The Workbook conversion allows you to define multiple objects with all their properties, and they convert to iMIS 300 as virtual objects that are accessible to IQA and the Panel Editor.

### Using the Workbook Converter tool

The Workbook Converter lets you easily import contact data from Excel spreadsheets within a workbook into iMIS.

> **Note:** Most of the documentation for this tool is embedded within the workbook either on the **Instructions** tab or as a note that appears when you hover over the column headers in each worksheet.

Preparing the Workbook Data

> **Note:** Remove any special formatting, for example, color, bolding, and so forth, from your Workbook data.

Before you begin preparing your Workbook data in anticipation of your conversion task, review the Before you begin and Performing pre-conversion tasks sections.

1. See recommended pre-conversion checklist.
2. (If iMIS 20-300 is self-hosted)

a. Navigate to the **Net\bin** folder (under the location where iMIS is installed) to obtain the **iMIS20-300WorkbookConverter.zip** file. The default location is **C:\Program Files (x86)\ASI\iMIS\Net\bin**.

b. Copy the file to a local folder, and extract its contents.

3. (If iMIS 20-300 is ASI-hosted) Contact ASI hosting or your AiSP to obtain the Workbook Converter ZIP file.

4. Copy the Excel workbook file from that folder to a backed-up location for editing, and rename the file. Note that the sample workbook is designated as read-only, so you should save changes into a new file.

   **Note:** This must be in the **.xlsx** format- older versions are not supported.

5. Complete the spreadsheet with the organization's data, following the instructions provided in the workbook.

   **Note:** Hover over column headers in each spreadsheet for tips/help on that column.

6. Enter/prepare your data:

- **Contents** worksheet: Be sure that each worksheet tab that contains data is listed here, and that there is an entry for all appropriate Worksheet Types. For example, if you have a worksheet called **Individuals**, which contains both contact and address information, be sure that there are two entries for that worksheet, one with type **Contact**, and another with type **Address**.

  List the worksheets in the **Contents** page in the order listed on the **Instructions** tab, that is, all **Contact** type sheets first, then **Address** type, and so forth.
  - Remove any trailing spaces from all entries in the **Contents** tab.
- **Contact** worksheet type: Create one or more worksheets with type **Contact**.. The sample workbook instructions show which fields apply to each type of contact. Fields at the top of the worksheet that are in bold apply to that worksheet's **PartyType**. You must have at least one worksheet of type **Contact**. Follow the instructions provided in the worksheet comments.

**Warning!**

To create a new worksheet, copy the entire first row containing the column headers from one of the provided examples with a matching **WorksheetType** into the first row of your new worksheet. The column headers must be on the first row, and all column

headers must appear. You do not have to fill out every column, but do not delete or rename any column headers.

- **Address** worksheet type: Enter all of the addresses for each contact - individual or organization - into the appropriate columns of the contact worksheets. If a contact has more than one address, you may enter additional addresses into any worksheet with worksheet type of **Address** (as defined on the **Contents** page). Be sure to list all of the worksheets that contain address information in the **Contents** page, with a worksheet type of **Address**.

  **Note:** The very first address for each ID must be marked as the default address. All other addresses can be flagged to override that default with a specific value for various communication reasons (preferred mail, bill, and ship).

- **RelatedDataDefinition** worksheet type: You can use this worksheet type to define the structure of an associated worksheet of the **RelatedData** type. The example workbook contains the following worksheets as examples of this type:
  - **Education Info Definition**: Defines the fields used in the associated **Education Info Data** worksheet. Follow the instructions provided in the worksheet comments.
  - **Personal Info Definition**: Defines the fields used in the associated **Personal Info Data** worksheet. Follow the instructions provided in the worksheet comments.
- **RelatedData** worksheet type: Worksheets of this type are user-defined. Their structure can be defined by an associated worksheet of the **RelatedDataDefinition** type or by a table or panel editor data source that already exists in iMIS.

  The example workbook contains the following worksheets as examples of this type:
  - **Education Info Data**: This worksheet's structure is defined by the associated **Education Info Definition** worksheet of the **RelatedDataDefinition** type. This worksheet contains multi-instance data; it can contain multiple rows of data for a single contact. Enter the educational information for each contact into the appropriate columns.
  - **Personal Info Data**: This worksheet's structure is defined by the associated **Personal Info Definition** worksheet of the **RelatedDataDefinition** type. This worksheet contains single-instance data; it can only contain one row of data for a single contact. Enter the personal information for each contact into the appropriate column.

- **Activities**: This worksheet is an example of a **RelatedData** worksheet type that does not have an associated RelatedDataDefinition worksheet type. The table referenced by the worksheet already exists in iMIS. Enter information about the activities, such as sales, for each contact in the appropriate column. In order to import the data, the activity type must be valid in iMIS. If the activity type is valid, but not fully set up in the Advanced Accounting Console, the data imports, but you cannot view it. Follow the instructions provided in the worksheet comments.

Your workbook may contain worksheets of the **RelatedData** type that are defined by existing tables in iMIS. If a worksheet of this type contains multiple rows of data for a single contact (multi-instance table data), enter **True** for that worksheet in the **MultiInstance** column on the **Contents** tab. This specification ensures that the Workbook Converter does not produce errors for these rows when run in **Test Only** mode. The**Activities** worksheet in the sample workbook is an example of a predefined multi-instance table.

If the worksheet can only contain one data row per contact (single-instance table data), leave the **MultiInstance** column blank. When in **Test Only** mode, the Workbook Converter checks for multiple occurrences of an ID in single-instance table data and produces errors for those rows.

When all entries are complete, **save** and **close** the workbook. The workbook must be closed when running the conversion.

**Note:** The workbook must be saved with an extension of **.xlsx**. You will receive an error if you attempt to convert using an **.xls** extension.

**Note:** If you have a column of data in a spreadsheet that should be empty, but instead contains a blank or space character (whitespace), then you will get an error during the TestOnly run. To clear a space from a cell in Excel, right-click the cell, and select **Delete**. To clear an entire column, it may be easier to copy the column header to the clipboard, then highlight the entire column and delete it, and then copy the column header into the first available cell at the end of line 1.

Importing the data

1. Locate the WorkbookConverter.exe file. Double-click the file to launch the converter.

> **Note:** The conversion utility now requires .NET 4.5. If not present, you will be prompted to update.

2. Fill out the Workbook Conversion utility fields as follows:

- **Source Workbook**: Configure the converter to use the correct spreadsheet file. You can use the folder icon to browse to your workbook file.
- **Max Contacts**: Leave at zero.
- **Test Only**: Keep this checked until you have run a successful test conversion that reports no errors.
- **Destination WebSite and Protocol fields**: There are two protocols that can be used; you can use an **https** protocol to access the conversion utility from outside the ASI firewall (which applies to all except ASI staff, who have the additional option of operating within the firewall using **NetTcp** protocol).
  - If using **https** protocol, select **https://[DomainName]/[VirtualRoot]** as the **Destination WebSite**.

> **Note:** ASI Hosting or your AiSP will set up the target iMIS 20-300 website with a valid security certificate.

  - If using the **NetTcp** protocol, select **net.tcp://[DomainName]:808/[VirtualRoot]/NetTcp** as the **Destination WebSite**.

Replace **[Domain Name]** with localhost, the IP address, or the proper name of the destination website.
Replace **[VirtualRoot]** with the name given to the virtual root during the installation of iMIS.

> **Note:** Workbook Converter saves the modified website name, so when you next run the conversion, the modified name automatically displays as the **Destination WebSite**.

- **Create User Accounts** is only available when the **Test Only** box is unchecked. Select this checkbox if you want to generate usernames based on the preferred mailing address email addresses:
  - **Duplicates**: If the email address already exists in the iMIS database, the duplicate is flagged in your error log.
  - **No email**: If the contact has no email address, no username is created for them.
  - **Passwords**: The password is a random value, so the user will go through the Forgot my password route to reset it to a password of their choosing
- **Username and Password**: Hosting will provide credentials for running the conversion.

3. Run the conversion in **Test Only** mode.

a. Verify that the spreadsheet file is closed.

b. Click **Convert** to run the import test. It can take several minutes for the initial connection to succeed, and no information appears on the conversion update window until after that is complete.

> **Note:** If you get a timeout error after 60 seconds, try resetting IIS and re-starting.

c. After conversion completes, click **Export Log** to save the import information and any errors.

> **Note:** Exported logs include additional details on any Service Errors encountered.

d. Click **Update Workbook** to allow the converter to update the spreadsheet and flag any errors in red.

4. Open the spreadsheet and fix any problems identified, such as duplicate records.

> **Note:** To display the dates differently, format the specific cell by selecting **Format Cells > Number > Dates**. Choose from the list of date formats and then select **OK**.

5. Re-run the converter in **Test Only** mode until it returns no errors.
6. Back up the iMIS database. Run the converter with **Test Only** mode disabled. Some additional errors may be reported at this point. You must examine the conversion log to identify all Errors and Warnings, and either correct them in the workbook and initiate a new conversion with a fresh 20-300 database, or in a few cases, you may correct them

directly in 20-300.

> **Warning!**
>
> After you have restored the fresh database, you must recycle the IIS ASI scheduler instance associated with the database.

7. Verify the conversion by logging into iMIS and locating records that should have been imported.
   Once you have completed the conversion process, proceed to the post-conversion tasks to ensure that your conversion process concludes seamlessly.

Tips and tricks

- If you re-run the Workbook Converter tool immediately after a data import, you may receive errors. To avoid these errors, follow these instruction before re-running the tool:

1. Close the **WorkbookConverter.exe** file.
2. Stop Internet Information Services (IIS).
3. Restore the database.
4. Start IIS.
5. Open the **WorkbookConverter.exe** file and begin the import.

- If you use the Workbook Converter tool to create data in a single-instance, user-defined table, you must deselect **Always create** in the table definition (located in the **User Defined Tables** window) before beginning the conversion. You can re-select **Always create** after the conversion has successfully completed. (**Settings > Membership > Configuring membership options**. Click **Additional Windows**, and then click **Define Tables**.) See To create a user-defined table for more information on user-defined tables.

**Post-conversion tasks**

These tasks can help you ensure the quality of your data conversion to iMIS 20-300, and some are required in order to ensure proper 20-300 processing.

After you convert

Confirmation emails will be sent. It is important for staff accounts to be used for all post-conversion testing of orders/event registrations/and so forth. If this is not feasible, another

option is to reset the preferred email address for selected contacts.

1. Ensure expected numbers of Individual and Organization records were created.
2. Review your committees, chapters, and so forth and compare rosters. Review roles that were assigned to members.
3. Ensure your database is accurately prepared.
4. Stop the IIS ASI Scheduler. Use the following command:

   ```
   iisreset -stop
   ```

5. Open the iMIS DB Maintenance Utility, and click **Prepare iMIS Database**. This recreates the **iMISPublishQueue** and **iMISPublishService**.
6. Do one of the following to re-enable the **ContactMain** trigger:

- In SQL Server Management Studio, go to **[*Database*] > Tables > dbo.ContactMain > Triggers**. Right-click on **asi_ContactMain_Insert_Update_Delete** and click **Enable**.
- You can also run the following query in SQL Server Management Studio:

  ```
  ALTER TABLE ContactMain ENABLE TRIGGER asi_ContactMain_Insert_Update_Delete
  ```

7. Edit the ASI Scheduler web.config file to restore the **PublishServerCode** value to match what is set in the **PublishServerRef** table.
8. Delete the contents of the **C:\Program Files (x86)\ASI\[iMISInstanceName]\indexServiceProtected\Search\Lucene** folder.
9. Restart the IIS ASI Scheduler. Use the following command:

   ```
   iisreset -start
   ```

10. Secure the database.
    Queries can be used to check for issues:

- **Committees**: Run this query on source database to get a list of all the committees and their members, and check resulting data in 20-300 (search for the committee and check against the roster there). Compare names, roles, and in cases where the membership is date-limited, the effective and expiration dates of membership:

```
SELECT Activity.Product_Code, Committee_Position.TITLE, Name.FULL_
NAME, Name.COMPANY, Activity.ACTION_CODES, Activity.EFFECTIVE_
DATE, Activity.THRU_DATE, Committee_Position.RANK, Activ-
ity.TRANSACTION_DATE

from Activity INNER JOIN Name on Name.ID = Activity.ID LEFT OUTER JOIN
Committee_Position on Committee_Position.POSITION_CODE = Activ-
ity.ACTION_CODES

Where Activity.ACTIVITY_TYPE = 'COMMITTEE' AND Activity.PRODUCT_
CODE LIKE 'COMMITTEE/%'

order by Product_Code
```

- **Duplicate organizations**: Run this query to see any duplicate Organizations that got created in 20-300 (multiple companies were created having the same name) – and investigate the cause.

```
select COUNT(i.ContactKey) as CompanyRecords, InstituteName as Com-
panyName

from Institute i, ContactMain cm where i.ContactKey = cm.ContactKey

group by InstituteName having COUNT(i.contactkey)>1
```

### Multi-Instance Utility

The Multi-Instance Utility (a standalone utility in your program group) helps you quickly install additional instances of iMIS, or reconfigure existing additional instances. By running the Multi-Instance Utility on an existing iMIS install, you can create a new independent instance of iMIS on the same appserver.

This utility also enables users to reconfigure a copy of an iMIS instance, to produce a unique instance.

> **Note:** This utility does not address multiple iMIS content management sites associated with the same iMIS database. Rather, it helps you configure a second, third or fourth instance of a base iMIS install, with associated Web and Public views (for

instance, development, test, and production instances of iMIS). If you have multiple publishing servers, then you must configure those additional servers manually.

### Prerequisites for installing multiple instances

Use the Multi-Instance Utility, which installs with iMIS, to install multiple instances or reconfigure copied instances of iMIS more easily.

**Note:** You can repeat this process to set up as many independent instances of iMIS as the server can handle.

### Before you begin

- Ensure the appserver already has a working installation of iMIS.
- Make sure you have a SQL Server login that is a **db owner** of the target database.

### Installing a second instance of iMIS

**Note:** This procedure uses specific names for folders and aliases that you create during the procedure, such as ASI_2 and iMIS_2. You can substitute meaningful, unique names in place of these.

**Note:** If you are using a 64-bit machine, see Running Crystal Reports in 32-bit mode.

Do the following to install a second instance of iMIS:

1. Use your SQL Server management tools to create a backup of the original instance of your iMIS database. Restore this backup under a new name on a SQL Server. This is the database your new iMIS instance will use.
2. Configure the new instance of iMIS using the Multi-Instance Utility. Go to **C:\Program Files (x86)\ASI\iMIS\Net\bin** and run the **AsiMultiInstanceUtility.exe** utility as **Administrator**.

> **Note:** The application will take a few minutes to load. During this time, the application will find the installed instance of iMIS and pre-populate the tool with all information necessary to create a copy of the installed instance of iMIS.

3. In the **Original iMIS Install Information** section, enter or browse to the path to the current instance of iMIS in the **iMIS Installation Path** field.
4. Enter the appropriate information in the **New iMIS Instance Information** section.
   Click for details

- **Operation Mode: Create New Instance** – create a new instance of iMIS.
- **Create New Instance Options** (available if the **Create New Instance** operation mode is selected):
- **Copy All Files From Original Install** – copies all files from original installed directories.

> **Note:** It may be necessary to stop IIS in order for your files to copy successfully.

- **Create In Own AppPool** – creates a unique iMIS app pool for this instance of iMIS. Use this to prevent one instance's app pool from recycling another instance's app pool.
- **New Instance Path** – the path of new instance. You can accept the pre-populated path, edit the path, or browse to the path desired for the copied instance. It is recommended that you use a meaningful path.
- **Web Site** – it is recommended to leave this setting as defaulted to when the Multi-Instance Utility is opened. Your new instance will be installed under the same website as the current instance.
- **Virtual Directory Name** – specify the virtual directory for the copied instance.
- **Change New URL Root** – specify a URL root other than **localhost** for the new instance, if necessary.
- **Public Site Virtual Directory** – virtual directory for the copied instance for a public site.

> **Note:** If the originally installed site is configured with an iMISPublic site, then this option is enabled, and you are required to give a new name for the iMISPublic site's virtual directory. If no iMISPublic site is configured in the original install, then this option is disabled.

- (optional) **Encrypt web.config files** – select to encrypt the web.config files.

  > **Note:** If the existing iMIS install encrypted its web.config file, the **Encrypt web.config files** checkbox is selected by default. If you uncheck **Encrypt web.config files**, then both the original iMIS instance and the new iMIS instance will be decrypted and left in the decrypted state.

- (optional) **Create Public Site** – select to create an iMISPublic Site, or deselect to not create a new public site for the new iMIS instance, if an iMISPublic site is configured for the installed instance.

  > **Note:** If the existing site has an iMISPublic site configured, then the **Create Public Site** checkbox is selected by default, and the name of that site will display in the **Public Site Virtual Directory** field. Edit this name to create a new unique site.

- **SQL Server Name** – the SQL Server instance that is attached to the reconfigured instance of iMIS.
- **Logon** – the logon for the SQL Server instance.
- **Password** – the password for the SQL Server instance.
- **Database Name** – specify the location of the reconfigured iMIS database and the iMIS SQL Server login credentials for that SQL Server instance.

  > **Note:** These fields default to the same instance used by the currently installed iMIS application. Only the database name needs to be changed, unless you want to point to a new server.

- **SMTP Server** – specify the domain name of your organization's SMTP server. It defaults to the SMTP server of the existing install. Change only if desired.

5. Click **Create New iMIS Instance**. The utility displays status information in the **Output Log** area as it performs the following:

- Updates .config files
- Updates the SystemConfig table in the database
- Creates an ODBC DSN entry for the new database instance

- Creates ASI.Scheduler for the copied instance
  The message **Configuration successful!** is displayed at completion.

### Reconfiguring a copied instance of iMIS

> **Note:** This procedure uses specific names for folders and aliases that you create during the procedure, such as ASI_2 and iMIS_2. You can substitute meaningful, unique names in place of these.

> **Note:** If you are using a 64-bit machine, see Running Crystal Reports in 32-bit mode.

You can now reconfigure a copied instance of a server with multiple iMIS instances configured, and use the copied instance of a server to set up new instances. Using the Multi-Instance Utility, you can select the **Reconfigure Existing** operation mode, and then for each of the existing iMIS instances on the copied instance of a server, you can provide new virtual app root names, host names, database coordinates, and so forth.

This operation mode takes an existing and fully functioning instance of iMIS, and reconfigures names and configuration files such that the instance can be used with different URLs and a different database.

> **Note:** This mode does not support manually copying files from a running instance and reconfiguring them into a working new instance. To do that, run Multi-Instance Utility in the **Create New Instance** operation mode.

Do the following to reconfigure a copied instance of iMIS:

1. Use your SQL Server management tools to restore a backup of your original instance of iMIS and create an iMIS database for use with the reconfigured instance of iMIS.

   > **Note:** This tool requires you to make a copy of the original database using backup/restore. You must use this copy of the original database for your instance reconfiguration.

2. Reconfigure the copied instance of iMIS using the Multi-Instance Utility. Go to C:\Program Files (x86)\ASI\iMIS\Net\bin and run the **AsiMultiInstanceUtility.exe** utility as **Administrator**.

   > **Note:** The application will take a few minutes to load. During this time, the application will find the copied instance of iMIS and pre-populate the tool with all information necessary to reconfigure the copied instance of iMIS.

3. In the **Original iMIS Install Information** section, enter or browse to the path to the current instance of iMIS in the **iMIS Installation Path** field.
4. Enter the appropriate information in the **New iMIS Instance Information** section.
   Click for details

- **Operation Mode: Reconfigure Existing** – select this option first to reconfigure an existing instance of iMIS.
- **Configure Existing Instance Options** (available if **Reconfigure Existing** operation mode is selected):
- **Reconfigure Only** – update an existing instance of iMIS. You can update the **Virtual Directory Name**, the **Public Site Virtual Directory**, **SMTP server**, and iMIS SQL Server login credentials and location.
- **Web Site** – it is recommended to leave this setting as defaulted to when the Multi-Instance Utility is opened. Your new instance will be installed under the same website as the current instance.
- **Virtual Directory Name** – specify the virtual directory for the reconfigured instance, if necessary.
- **Change New URL Root** – specify a URL root other than **localhost** for the reconfigured instance, if necessary.
- **Public Site Virtual Directory** – specify a virtual directory for the reconfigured instance for a public site.

  > **Note:** If the originally installed site is configured with an iMISPublic site, then this option is enabled, and you are required to give a new name for the iMISPublic site's

virtual directory. If no iMISPublic site is configured in the original install, then this option is disabled.

- (optional) **Encrypt web.config files** – select to encrypt the web.config files.

  **Note:** If the existing iMIS install encrypted its web.config file, the **Encrypt web.config files** checkbox is selected by default. If you uncheck **Encrypt web.config files**, then both the original iMIS instance and the reconfigured iMIS instance will be decrypted and left in the decrypted state.

- **SQL Server Name** – the SQL Server instance that is attached to the reconfigured instance of iMIS.
- **Logon** – the logon for the SQL Server instance.
- **Password** – the password for the SQL Server instance.
- **Database Name** – specify the location of the reconfigured iMIS database and the iMIS SQL Server login credentials for that SQL Server instance.

  **Note:** These fields default to the same instance used by the currently installed iMIS application. Only the database name needs to be changed, unless you want to point to a new server.

- **SMTP Server** – specify the domain name of your organization's SMTP server. It defaults to the SMTP server of the existing install. Change only if desired.

6. Click **Reconfigure Existing iMIS Instance**. The utility displays status information in the Output Log area as it performs the following:

- Updates .config files
- Updates the SystemConfig table in the database
- Updates the PublishServerRef table in the database
- Updates an ODBC DSN entry for the reconfigured database instance
- Creates ASI.Scheduler for the reconfigured instance

The message **Configuration successful!** is displayed at completion.

**Post installation and reconfiguration steps**

After you have installed a second iMIS instance, or you have reconfigured a copied iMIS instance, do the following:

1. Create a new Advanced Accounting Console shortcut for use with the second instance:
a. Go to **Start > Programs > ASI > iMIS > iMIS Desktop**.
b. Make a copy of the existing Advanced Accounting Console shortcut.
c. Right-click **iMIS Desktop** and select **Send To > Desktop (create shortcut)**.
2. Rename this shortcut to the name of the new or reconfigured instance:
a. Right-click the shortcut and select **Properties**.
b. Change the path in both **Target** and **Start in** to point to the second instance folder (`"C:\Program Files (x86)\ASI\iMIS_02\Omnis7\Omnis7.exe" imis4.lbr /m`) and (`"C:\Program Files (x86)\ASI\iMIS_02\"`).

> **Note:** These values are for a default install. Enter the values for your actual installed directories for added instances.

3. Test access to the new **iMIS_2** application with Advanced Accounting Console. Click for details
a. Open Advanced Accounting Console but do not log on.
b. Click **Cancel**.
c. Select **Logon > Set Host Location**. The **Local Preferences** window is displayed.
d. Click **Insert**. The **Application Server URL Setup** window is displayed.

> **Note:** The URL to Advanced Accounting Console must end with /CS2.

e. In the **Server** field, specify the URL for the new **iMIS_2** application that you created earlier, for example, **http://<*servername*>/iMIS_2/CS**.
f. Click **Save**.
g. Click **Edit**.
h. From the **Application Servers** list, choose the URL for the new **iMIS_2** application.
i. Click **OK**.
j. Close the **Local Preferences** window.
k. Select **Logon > Logon to Host**. The **Server** field indicates the URL for the new **iMIS_2** application.

l. Log on as **MANAGER** and ensure that Advanced Accounting Console is working properly for the new instance of iMIS.

> **Note:** If you receive a SQL Login error, close Advanced Accounting Console and run **the DBMaintenance.exe** utility that is located in the new **ASI_2** folder structure (**C:\Program Files (x86) \ASI_2\iMIS\net\iMISDBUpgrade**). Use the iMIS SQL Server login credentials to connect to the new iMIS database for this instance of iMIS. When the **iMIS Database Repair** window appears, click **Prepare iMIS Database**. Wait for a successful completion message, and then close the utility and log on with Advanced Accounting Console again.

4. Test access to the **iMIS_2** application from the staff view:
a. Open a supported browser.
b. Go to the URL for **iMIS_2** (for example, **http://<*servername*>/iMIS_2**). If the **iMIS Home** page appears, connections to **iMIS_2** are working properly.
c. Click **Log On** and verify that you can log on as **MANAGER**.
5. Enable **asiScheduler**:
a. Open the IIS Administrative Tool. Go to **Start > Administrative Tools > Internet Information Services (IIS) Manager > Sites > Default Web Site**.
b. Select the **asiScheduler_ [*your instance*]** for the instance you installed, then right-click and select **Manage Application > Browse**. An ASP.Net page will open.
c. Close the browser. The **asiScheduler_ [*your instance*]** is now enabled.
6. (Public view) Test access to the **iMISpublic_2** application with a web client:
a. Open a supported browser.
b. Go to the URL for **iMISPublic_2** (for example, **http://<*servername*>/iMISPublic_2**). The public welcome page for iMIS appears.
c. Click **Log On** and verify that you can log on as **MANAGER**, which means connections to **iMISPublic_2** are working properly.
7. (CM Only) Do the following in the Staff site for your subsequent instances:
a. Change the URL and other paths as needed for your subsequent instances of iMIS. Go to **RiSE> Site Builder > Manage websites**. Edit, save and publish web sites.

b. Regenerate all currently published content:
i. Go to **RiSE > Page Builder > Manage content**.
ii. Select the root (@) folder.
iii. Click **Publish**.
iv. Select **Publish Working Items, Regenerate Published Items**.
v. Click **OK**.

## Configuring content items

Content item configurations allow you to:

- Define how the content item will behave
- Control how much access you want end users to have
- Hide configuration details from end users; two instances of the same content item with different configurations can appear as two different controls to the end user
- Examples:
- Allow users to edit on a staff-facing site, but display the data in read-only mode on a public-facing site
- Use multiple instances of a content item on one page to access different sets of data

**Run-time versus design-time**

Content items have two different views:

- **Design-time view**: What you see in a content record when you add a content item and configure it.
- **Run-time view**: What your end-user sees when viewing the content item within your website. This may differ from what you see in the Design-time view, because some content items have a different behavior after you publish the content.

**Specifying commit sequence**

If you place more than one content item on a page, you might need to specify the order in which actions occur on that page. The commit sequence function allows you to explicitly define the execution order of multiple content items in a content record.

You can define a commit sequence value for the processing order of each content item relative to the other content items in the same content record. The commit sequence value must be zero or greater. Content items with a value of zero (the default) are pro-

cessed after any other content item with a non-zero commit sequence value that are in the same content record.

Setting a commit sequence is only required in a few scenarios and is noted in the content item's configuration help if needed.

### Troubleshooting errors

Occasionally, an content item may fail. However, it will fail gracefully in place, without disabling the whole page. Typically, a "problem loading" error results from some kind of bad data. By default, iMIS hides the error details.

Click to view image




The settings controlling this error logging reside in the **<log4net>** section of your site's **web.config** file. The default settings enable error logging in the Windows Event log and comprehensive logging in the ASI log file, which captures both errors and warnings. This log file, **Asi.WebRoot.log**, is in the folder above your website root.

Contact your hosting administrator if you need access to information in these logs.

### Security for content items

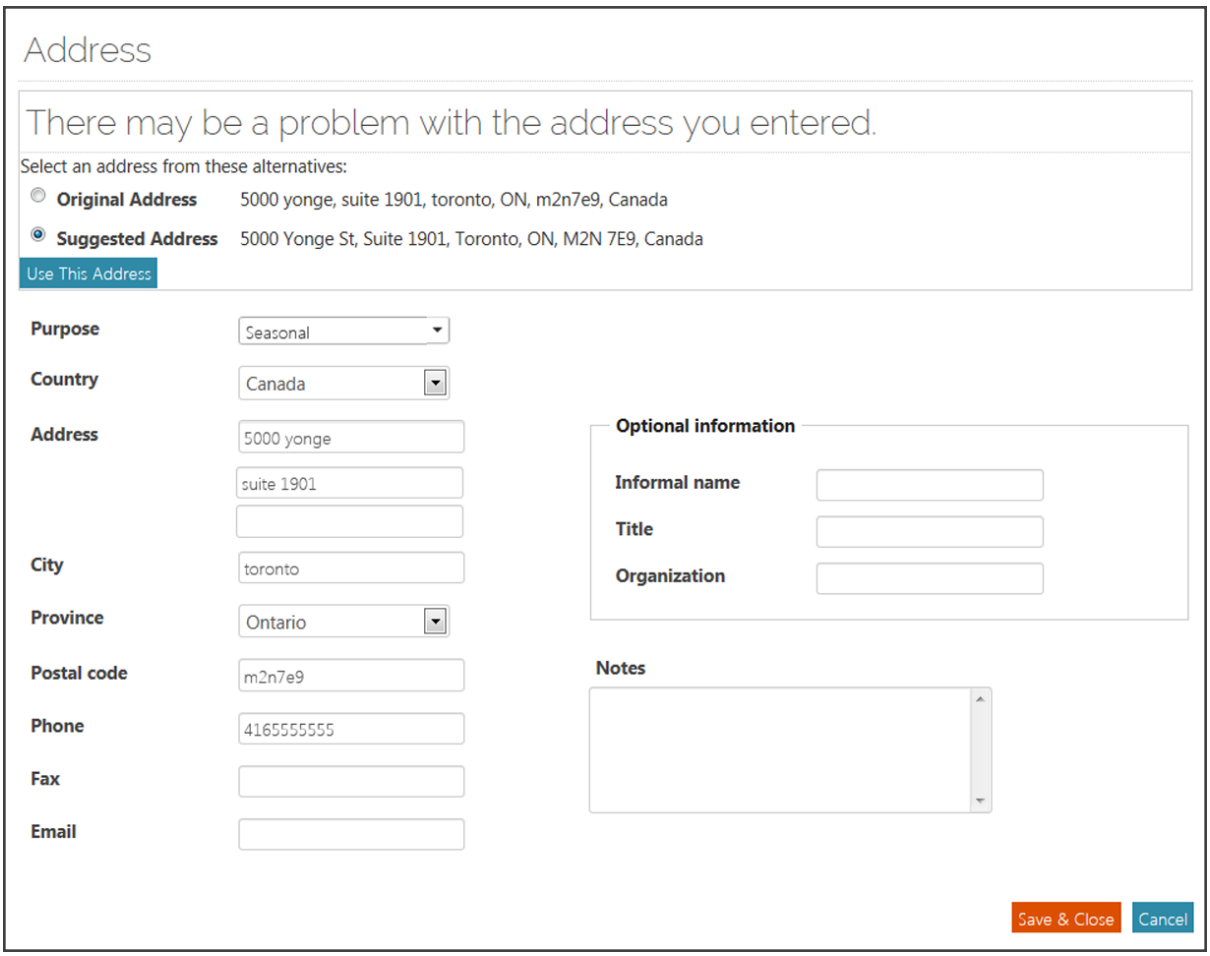
Most security is defined at the content record level within iMIS. You can choose that different content items display for different users. For example, an unauthorized user might see the description of a Special Interest Group, but a signed-in member might see the roster for the group and a staff person might have the privilege to add, edit, or delete the group.

### Address verification for content items

iMIS SOA can perform real-time address verification using web services hosted by ASI. There are several benefits to this:

- Running this verification through the ASI web service frees you from having to install and maintain these data files locally.
- Offloading verification to this service keeps it from adding to the processing load of your page.
- The services of *different* address providers can co-exist, making it possible to verify addresses across multiple countries.
- The service can support future verification of collections of addresses as well as single ones.
- Postal addresses entered in the Contact Account Creator and Contact Address Editor content items automatically upload to this service that verifies and standardizes the address. Users can then either accept the suggested address or keep the original as it was entered.

Click to view image




The countries supported by this service are subject to change. Currently, AVS supports the following countries:

- United States
- Canada
- United Kingdom
- Australia
- New Zealand

> **Note:** AVS is a licensed feature that requires a modification to your website's web.-config file in order to validate both Australian and New Zealand addresses. You will need to add the following values shown in bold to the AVSContries settings:

<setting key="AVSCountries" value="US,USA,CA,CAN,**AU**,**AUS**,**NZ**,**NZL**"/>

Only addresses whose country codes match a country code in the AVSCountries setting will be processed for address verification.

AVS Data Updates

ASI provides updates to Melissa data at unspecified intervals.

### Passing URL Parameters

Many content items allow you to change the content they display based on the value of a URL parameter. This gives you the freedom to create a single content record. This record can be reused and the display can be changed based on a value sent in a link to the page. For example, instead of creating a new content record for every event, you can reuse a single content record that displays different event information based on the EventKey value in the URL.

Parameter values are passed to content items from a several types of sources:

- Search result links
- IQA query links
- Navigation items
- Relative links
- Absolute links

For any content item that allows URL parameters to be passed, see the configuration help file for detailed instructions.

**Note:** If multiple values are sent to a page for a single URL parameter, the first parameter value wins. For example, if the URL pointing to the Event Display content item is **http://myorg/Events/Event_Display.aspx?EventKey=SPR12&EventKey=FALL12**, only the **SPR12** event displays.

> **Note:** URL parameters set by navigation items cannot be manually overridden in the URL. A user cannot change the parameter value in the URL to display different content.

### Working with forms in dynamic content items

The style guide in the iMIS **Member**, **Member Responsive** and **Donor** sites includes a **Forms** page that demonstrates HTML elements and CSS commonly used in iMIS forms.

If you build dynamic content items that contain forms, you can use the guide as a reference and learning tool. It does not demonstrate every possible form design pattern, but we plan to gradually expand the number of examples.

The examples in the style guide are in ASP.NET for developer reference. You can see the HTML output of an example by using your browser's developer tools to inspect any element.

Available examples includes panel fields, form classes, input sizes, and MultiSelect. Access this helpful guide at **Manage > Style Guide > Forms**.

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Occasionally, an content item may fail. However, it will fail gracefully in place, without disabling the whole page. Typically, a "problem loading" error results from some kind of bad data. By default, iMIS hides the error details.

Click to view image




The settings controlling this error logging reside in the **<log4net>** section of your site's **web.config** file. The default settings enable error logging in the Windows Event log and

comprehensive logging in the ASI log file, which captures both errors and warnings. This log file, **Asi.WebRoot.log**, is in the folder above your website root.

Contact your hosting administrator if you need access to information in these logs.

### Security for content items

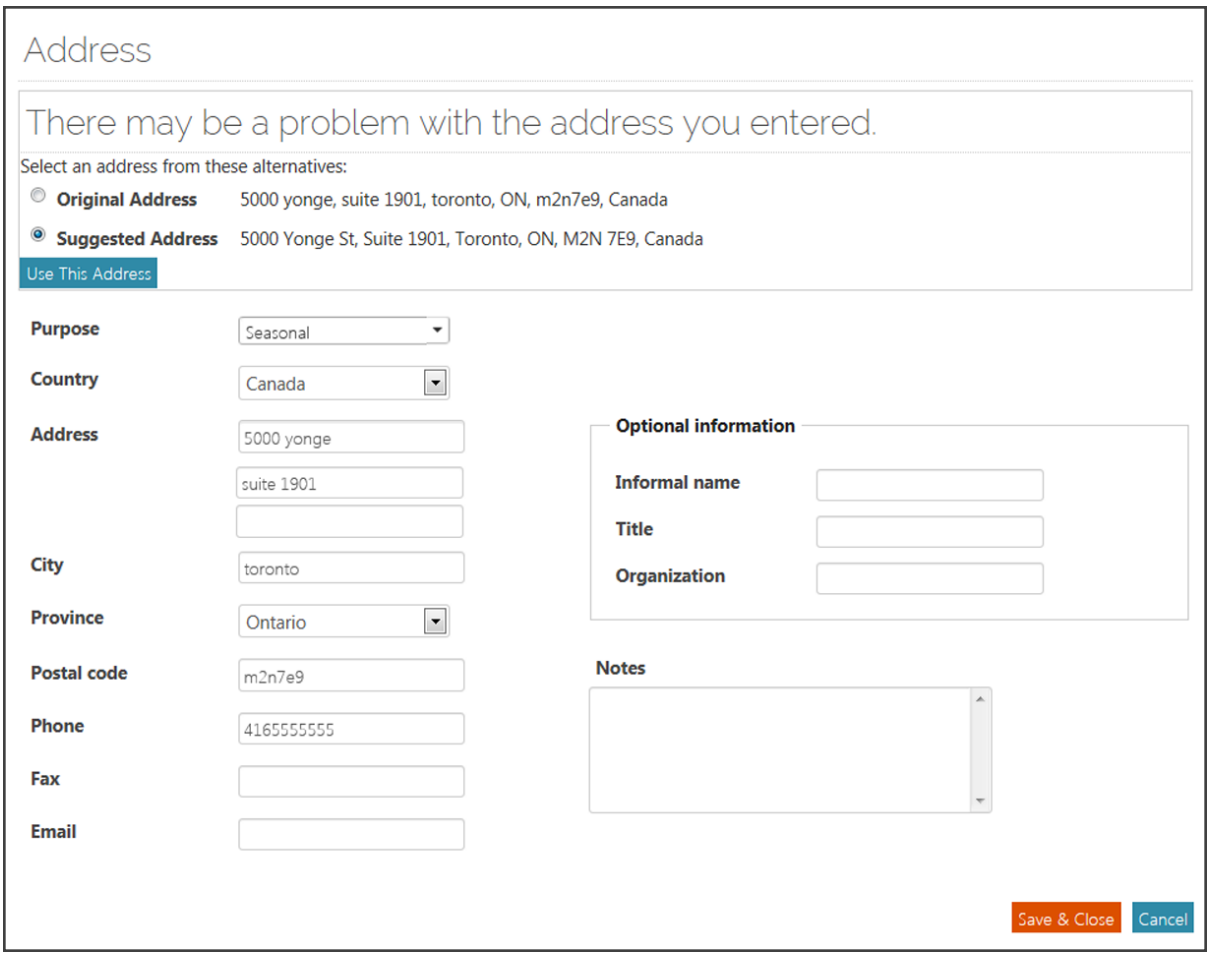
Most security is defined at the content record level within iMIS. You can choose that different content items display for different users. For example, an unauthorized user might see the description of a Special Interest Group, but a signed-in member might see the roster for the group and a staff person might have the privilege to add, edit, or delete the group.

### Address verification for content items

iMIS SOA can perform real-time address verification using web services hosted by ASI. There are several benefits to this:

- Running this verification through the ASI web service frees you from having to install and maintain these data files locally.
- Offloading verification to this service keeps it from adding to the processing load of your page.
- The services of *different* address providers can co-exist, making it possible to verify addresses across multiple countries.
- The service can support future verification of collections of addresses as well as single ones.
- Postal addresses entered in the Contact Account Creator and Contact Address Editor content items automatically upload to this service that verifies and standardizes the address. Users can then either accept the suggested address or keep the original as it was entered.

Click to view image




The countries supported by this service are subject to change. Currently, AVS supports the following countries:

- United States
- Canada
- United Kingdom
- Australia
- New Zealand

> **Note:** AVS is a licensed feature that requires a modification to your website's web.-config file in order to validate both Australian and New Zealand addresses. You will need to add the following values shown in bold to the AVSContries settings:

<setting key="AVSCountries" value="US,USA,CA,CAN,**AU**,**AUS**,**NZ**,**NZL**"/>

Only addresses whose country codes match a country code in the AVSCountries setting will be processed for address verification.

AVS Data Updates

ASI provides updates to Melissa data at unspecified intervals.

### Passing URL Parameters

Many content items allow you to change the content they display based on the value of a URL parameter. This gives you the freedom to create a single content record. This record can be reused and the display can be changed based on a value sent in a link to the page. For example, instead of creating a new content record for every event, you can reuse a single content record that displays different event information based on the EventKey value in the URL.

Parameter values are passed to content items from a several types of sources:

- Search result links
- IQA query links
- Navigation items
- Relative links
- Absolute links

For any content item that allows URL parameters to be passed, see the configuration help file for detailed instructions.

**Note:** If multiple values are sent to a page for a single URL parameter, the first parameter value wins. For example, if the URL pointing to the Event Display content item is **http://myorg/Events/Event_Display.aspx?EventKey=SPR12&EventKey=FALL12**, only the **SPR12** event displays.

> **Note:** URL parameters set by navigation items cannot be manually overridden in the URL. A user cannot change the parameter value in the URL to display different content.

### Working with forms in dynamic content items

The style guide in the iMIS **Member**, **Member Responsive** and **Donor** sites includes a **Forms** page that demonstrates HTML elements and CSS commonly used in iMIS forms.

If you build dynamic content items that contain forms, you can use the guide as a reference and learning tool. It does not demonstrate every possible form design pattern, but we plan to gradually expand the number of examples.

The examples in the style guide are in ASP.NET for developer reference. You can see the HTML output of an example by using your browser's developer tools to inspect any element.

Available examples includes panel fields, form classes, input sizes, and MultiSelect. Access this helpful guide at **Manage > Style Guide > Forms**.

## Creating Dynamic Content Items

iMIS Dynamic Content Items are unique components that can be placed together on content pages of your iMIS sites that you build with RiSE. This section helps you to understand how to present attractive and dynamic content to your users.

### What are Dynamic Content Items?

An iMIS Dynamic Content Item is an iMIS-specific web part that represents a building block of features that you can place on a content record with other building blocks to create new pages of features. Multiple content items can be combined and displayed in a content record as you prefer.

Default dynamic content items appear throughout iMIS. You can modify them for your needs and you can reuse content items throughout the system. For example, a Dynamic Content Item displaying a roster for a Membership Group can follow the same user behavior patterns as Dynamic Content Item for a roster in Events.

### Where can I find and use Dynamic Content Items?

**To create a new web page containing one or more content items**

1. Go to **RiSE > Page Builder > Manage content**.
2. Select **New > Website Content**.

   **Note:** For a detailed explanation of creating a content record, see Managing content.

3. Select **Add content** and select the desired content item from the Content Gallery.
4. Enter the applicable information and select the desired options.

   **Note:** For more information about the specific configuration options available for each content item, refer to the in-product help.

5. Click **OK**.
6. Click **Preview** to see how the content will be displayed to users.
7. Click **Save** and then **Publish**.
8. From **RiSE > Site Builder > Manage sitemaps**, create new website navigation.
9. **Note:** See Defining sitemaps and navigation items for more information about creating navigations for your site.

   **Note:** If no owner is specified for the content block, the default organization displays as the owner.

10. Click **Publish**.

**To add content item to an existing webpage**

All iMIS sample sites come pre-filled:

1. Go to **RiSE > Page Builder > Manage content**.
2. Select the content record and click **Edit**.
3. Select **Add content** to open the **Content Gallery** window.
4. Navigate to the folder that contains the content item you want to add, select the desired content item and click **OK**.

5. Configure the content item by entering applicable information and select the desired options.
6. 
> **Note:** For more information about the specific configuration options available for each content item, refer to the in-product help.

7. Click **OK**.
8. Click **Preview** to see how the content will be displayed to users.
9. Click **Save** and then **Publish**.

**To set up a user content area**

User content areas are created by using content items which can be configured to allow a user to post content on the web. Examples of this user-generated content include forums, message boards, or blogs.

1. Go to **RiSE > Page Builder > Manage content**.
2. Create a content record.

> **Note:** See Managing content for details.

3. Select the Content Block content item from the Content Gallery.
4. Enter the applicable information and select the desired options. See the help file for details.
5. Click **OK**.
6. Add additional content to page, if desired.
7. Click **Save**.
8. Click **Publish**.
9. Go to **RiSE > Site Builder > Manage sitemaps**.
10. Create a navigation.

> **Note:** See Defining sitemaps and navigation items for details. Note that if no owner is specified for the content block, the default organization displays as the owner.

11. Click **Publish**. The page displays as configured with an area dedicated to user content entry directly on the page.

*See also:*

- Configuring content items
- Dynamic content item examples


## Dynamic content item examples

Content items can be used in a variety of ways, and in many different combinations to meet your organization's needs. This section contains examples of commonly used content items and provides guidance in maximizing their benefits.

### Displaying query results in content items

The content items described in this section use IQA queries to drive the data displayed to users. Each content item provides a unique way to display the data.

#### Query Chart Viewer

The Query Chart Viewer content item displays query results in a chart, which can be set to a range of sizes, skins, and chart types.

#### Designing queries for Query Chart Viewer

The Query Chart Viewer can render any existing query, but you will get the best results by following these guidelines on how to design queries specifically for use with this content item:

- **Queries** – The queries you create for the content item should be structured so that the results are appropriate for charting. For example, if you want the chart to display the total sales per salesperson, then the source query should be written using the Sum function in IQA.
- **Query Display Columns** – Each property you select on the **display** tab in IQA is available in the configuration page as a **Data column** display option. You can select up to three properties to be displayed on the content item if you want to display a chart with multiple data values.

> **Note:** In order to display multiple data values in a chart, a property in the **display** tab must have the checkbox checked in the **Subtotal** column. The properties for which the checkbox is selected in the **Subtotal** column will be available as options for the **Series data column** configuration option in the content item.

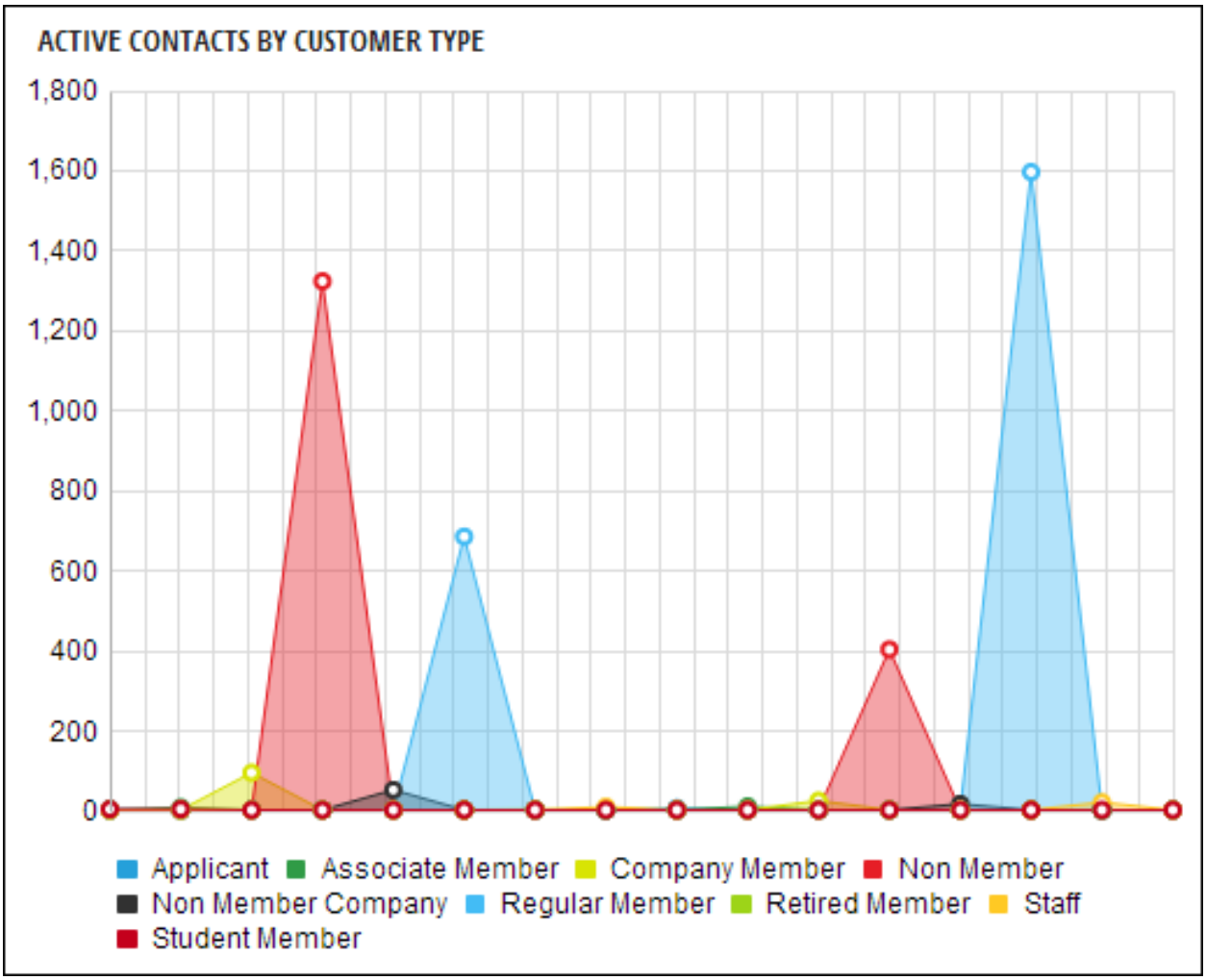
- **Aliases** – In your source query, enter an **Alias** for the **display** properties you plan to show in the content item. Relying on the default labels might not be sufficient, especially when your query uses multiple joined sources or custom SQL expressions. If the query does not display as you expect, using an **Alias** often resolves the issue.
- **Sorting** – You can sort the query results displayed in your chart in ascending or descending order. To sort your results, edit your source query and, from the **sorting** tab, add the property to be sorted.
- **Labels** – The labels on your chart's x-axis might overlap if there are too many data points or if the labels are too long. You might be able to improve the display through a few methods: In the content item, you can expand the width of the chart or change the label angle. In the query, you can try to reduce the number of data points.

Chart types

The following are examples of chart types in the Query Chart Viewer.

Area

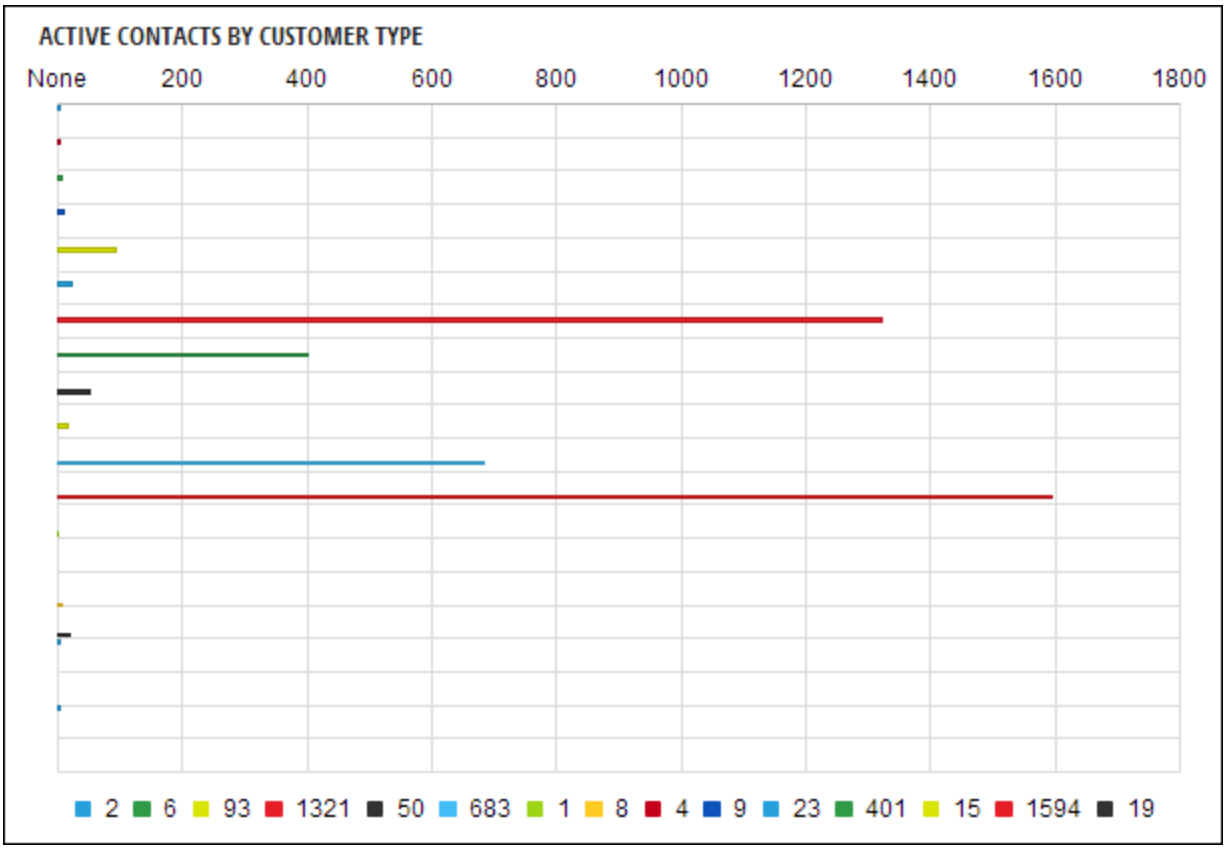
Displays data in an area filled with color to illustrate trends.




**Note:** You can display multiple data values in an **Area** chart.

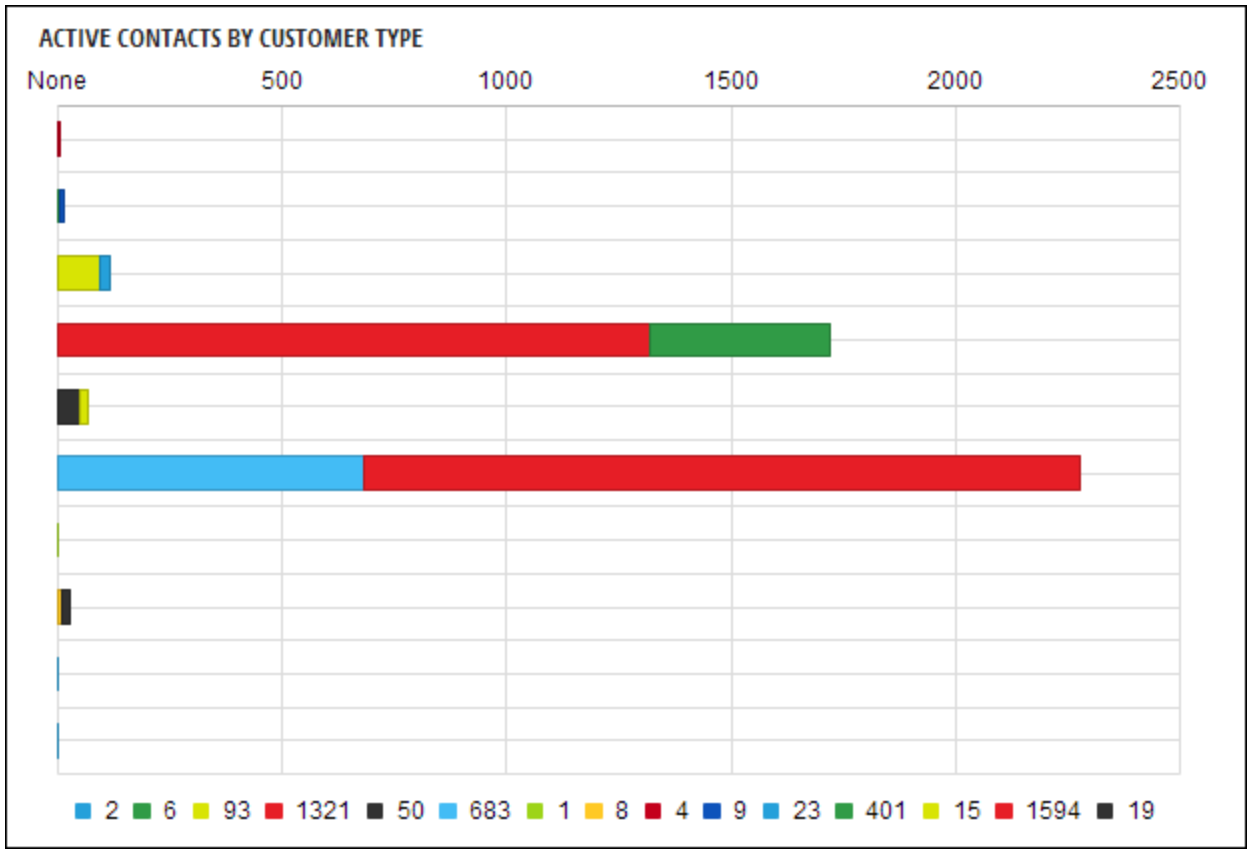
Bar - Horizontal

Displays sets of data with horizontal rectangular bars for comparison.



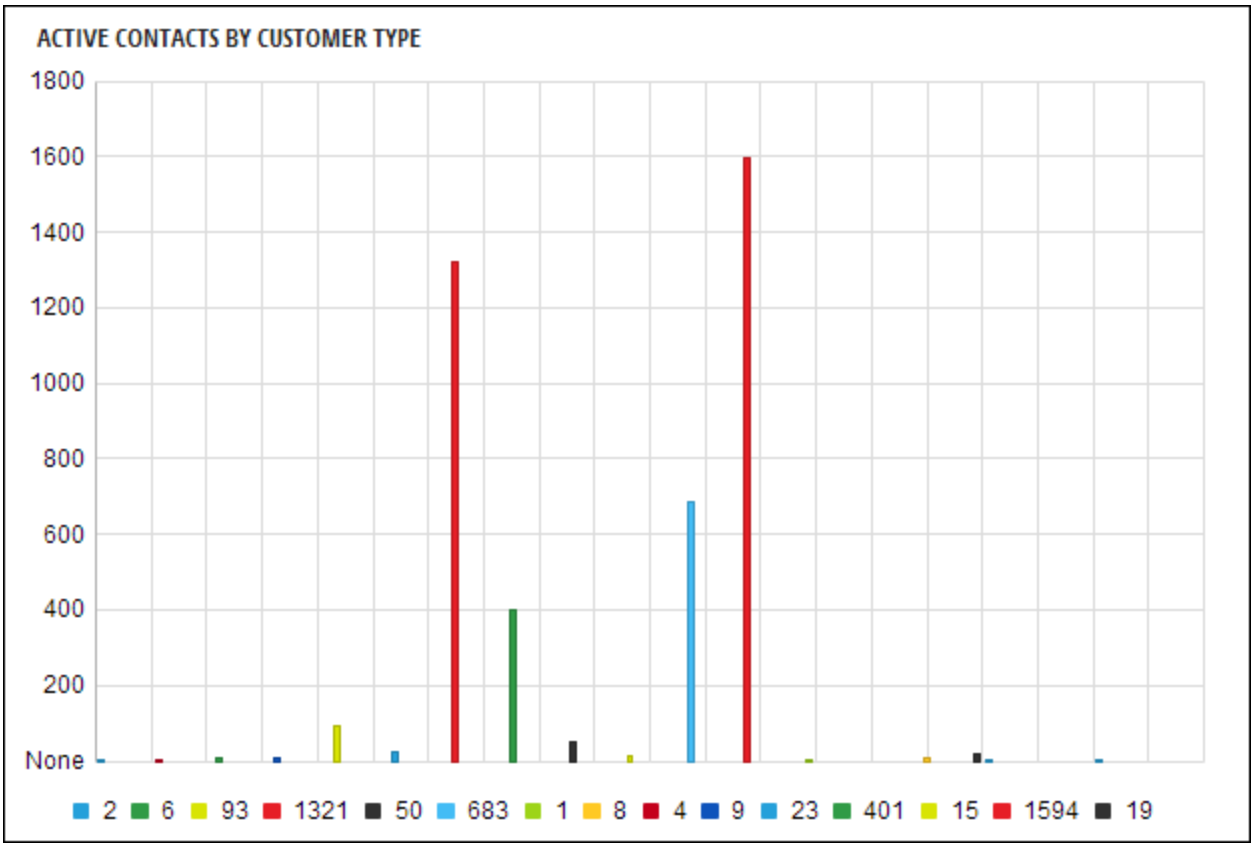

**Note:** You can display multiple data values in a **Bar - Horizontal** chart.

You can also select **Enable stacked series**. This option allows related data to be stacked on the same data-point bar. This option is only available for **Bar - Horizontal** and **Bar - Vertical** charts.



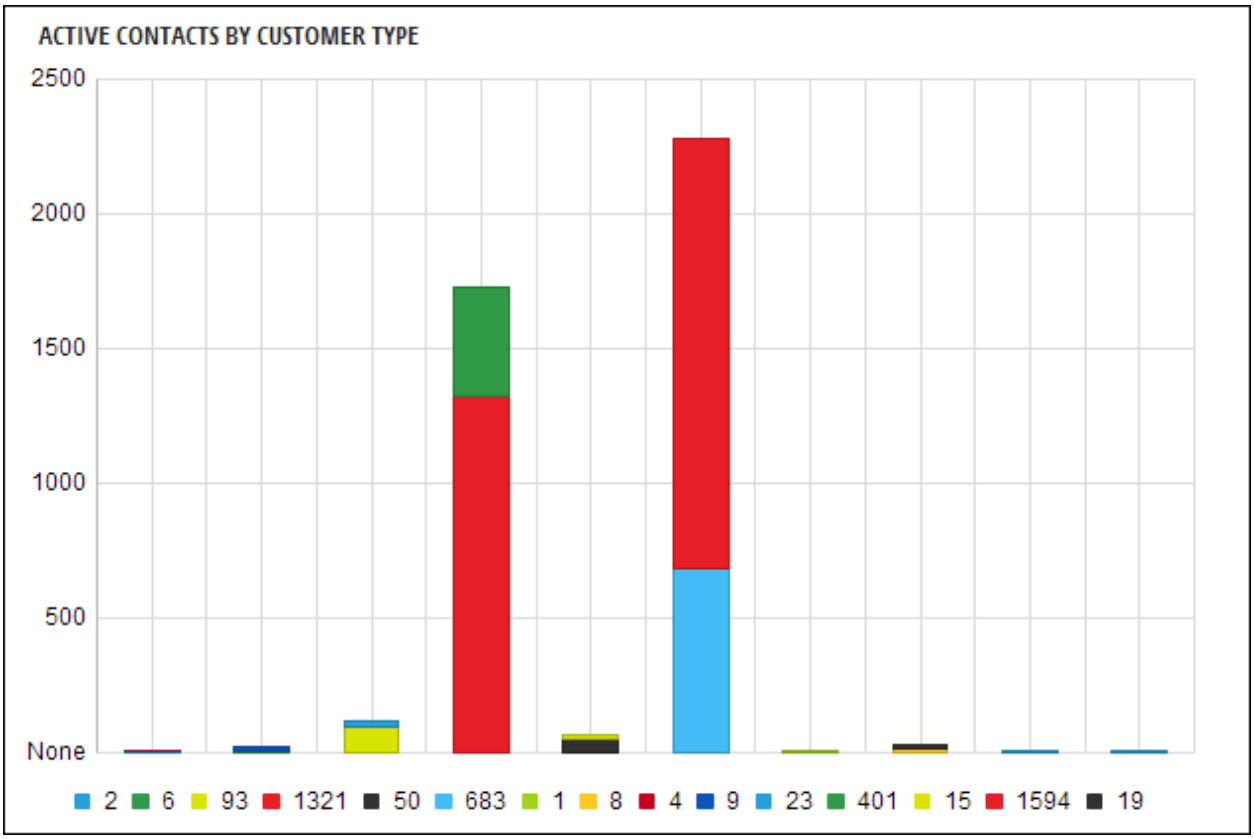

Bar - Vertical

Displays sets of data with vertical rectangular bars for comparison. For example, create a vertical bar chart that shows the number of contacts in your organization by customer type.



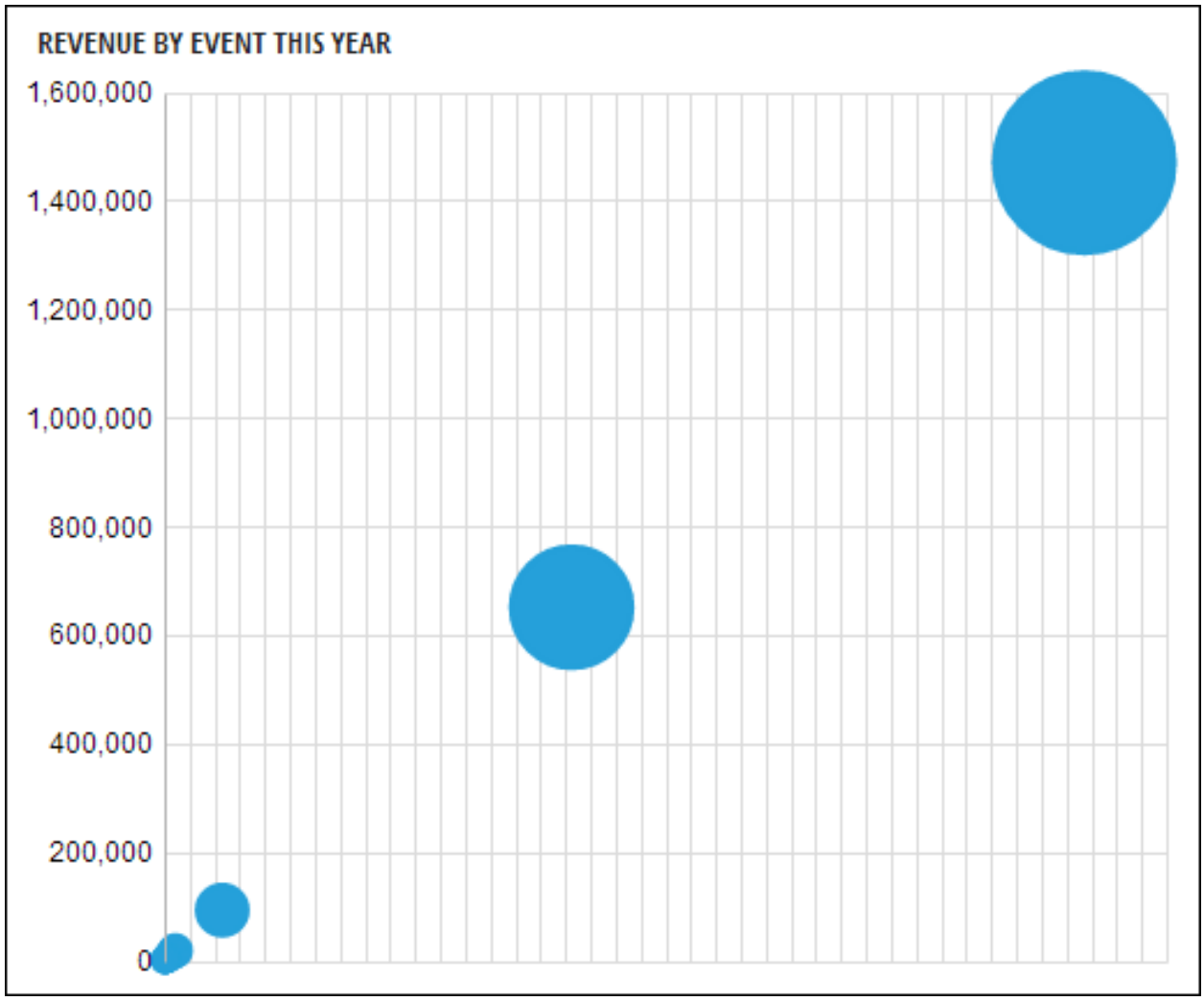

**Note:** You can display multiple data values in a **Bar - Vertical** chart.

You can also select **Enable stacked** series. This option allows related data to be stacked on the same data-point bar. This option is only available for **Bar - Horizontal** and **Bar - Vertical** charts.




Bubble

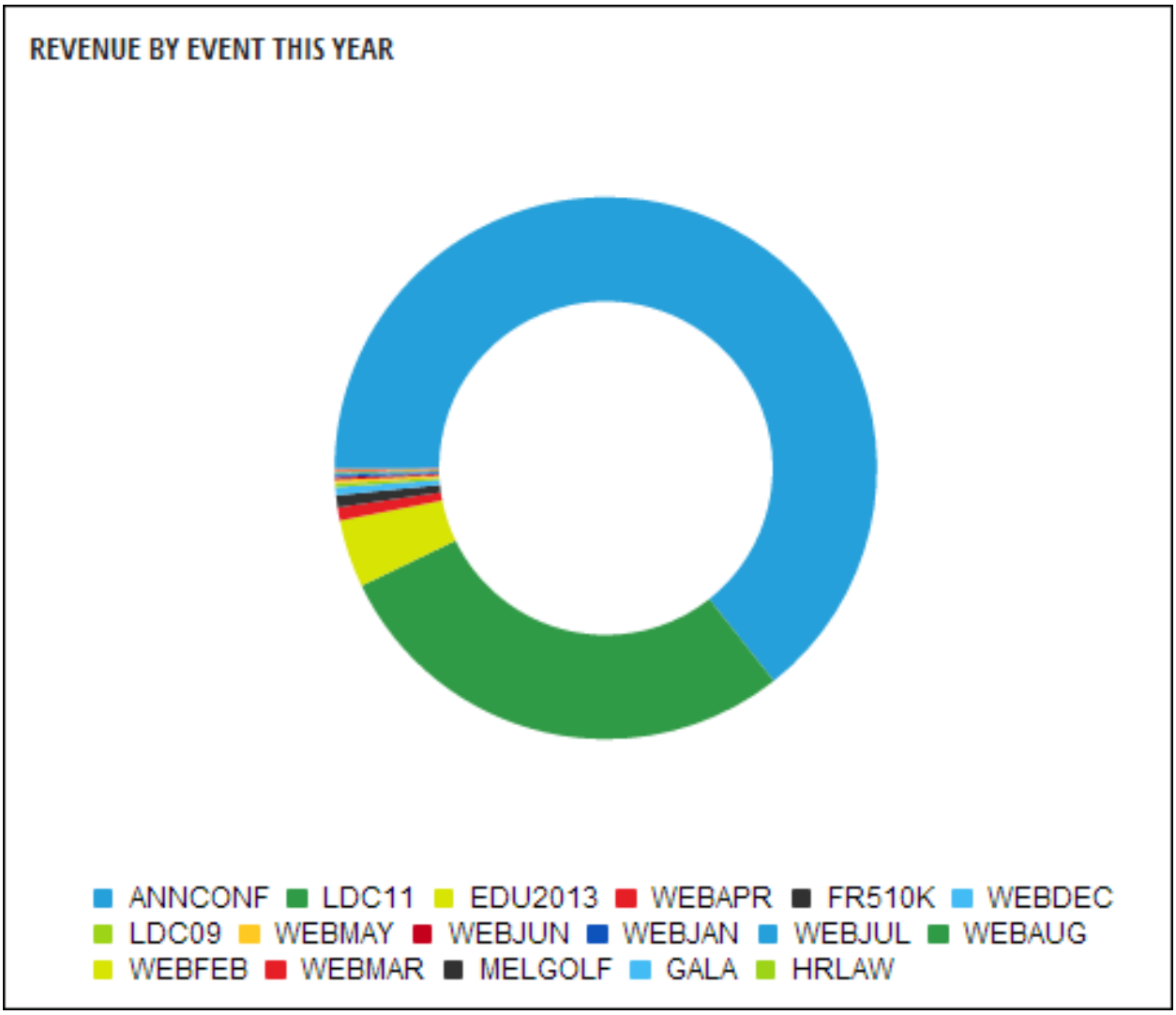
Displays data as a series of bubbles.




**Note:** You cannot assign a size value to the bubbles in the **Bubble** chart.

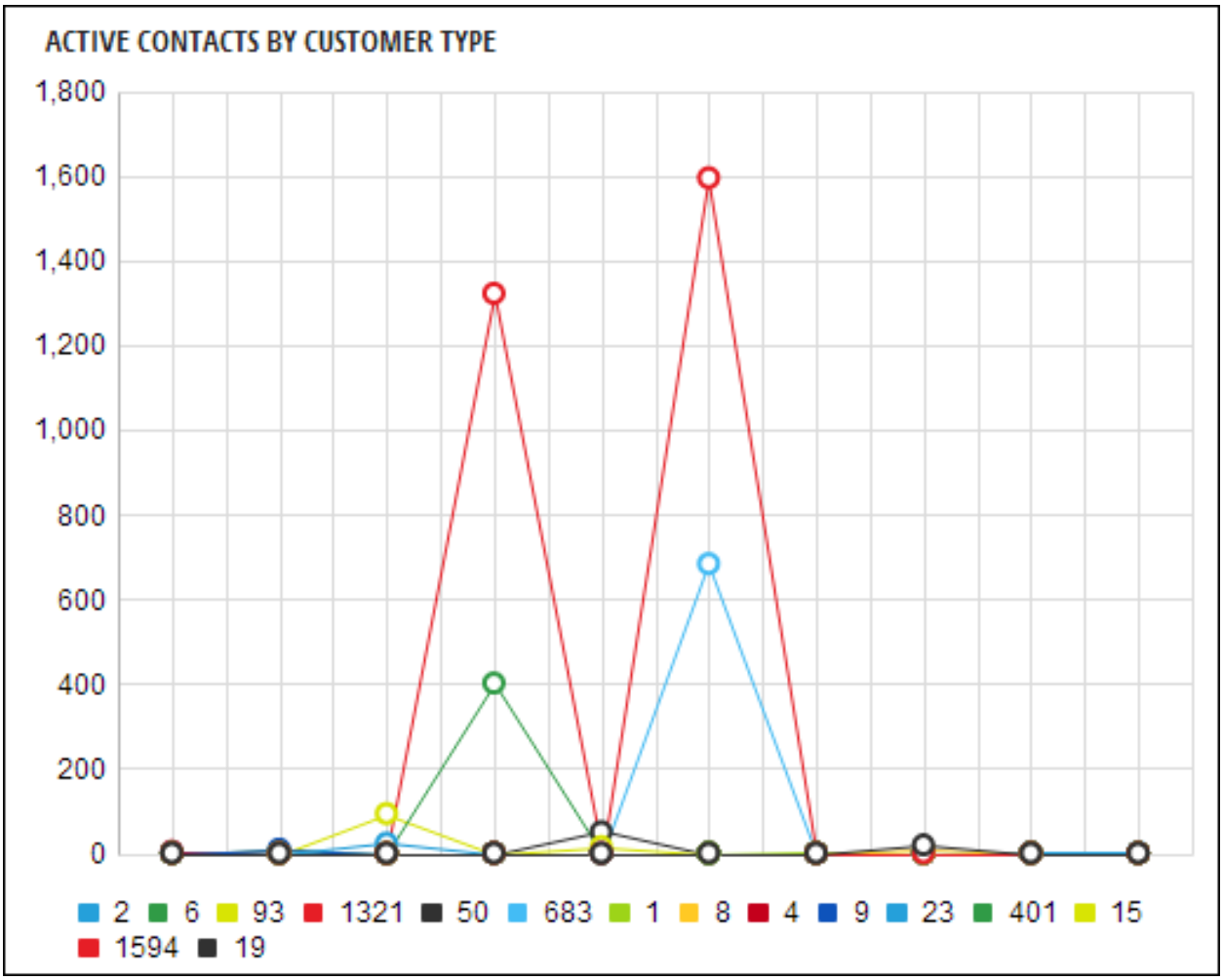
Donut

Functionally identical to a pie chart, with the exception of a blank center and the ability to support multiple statistics at once.




Line

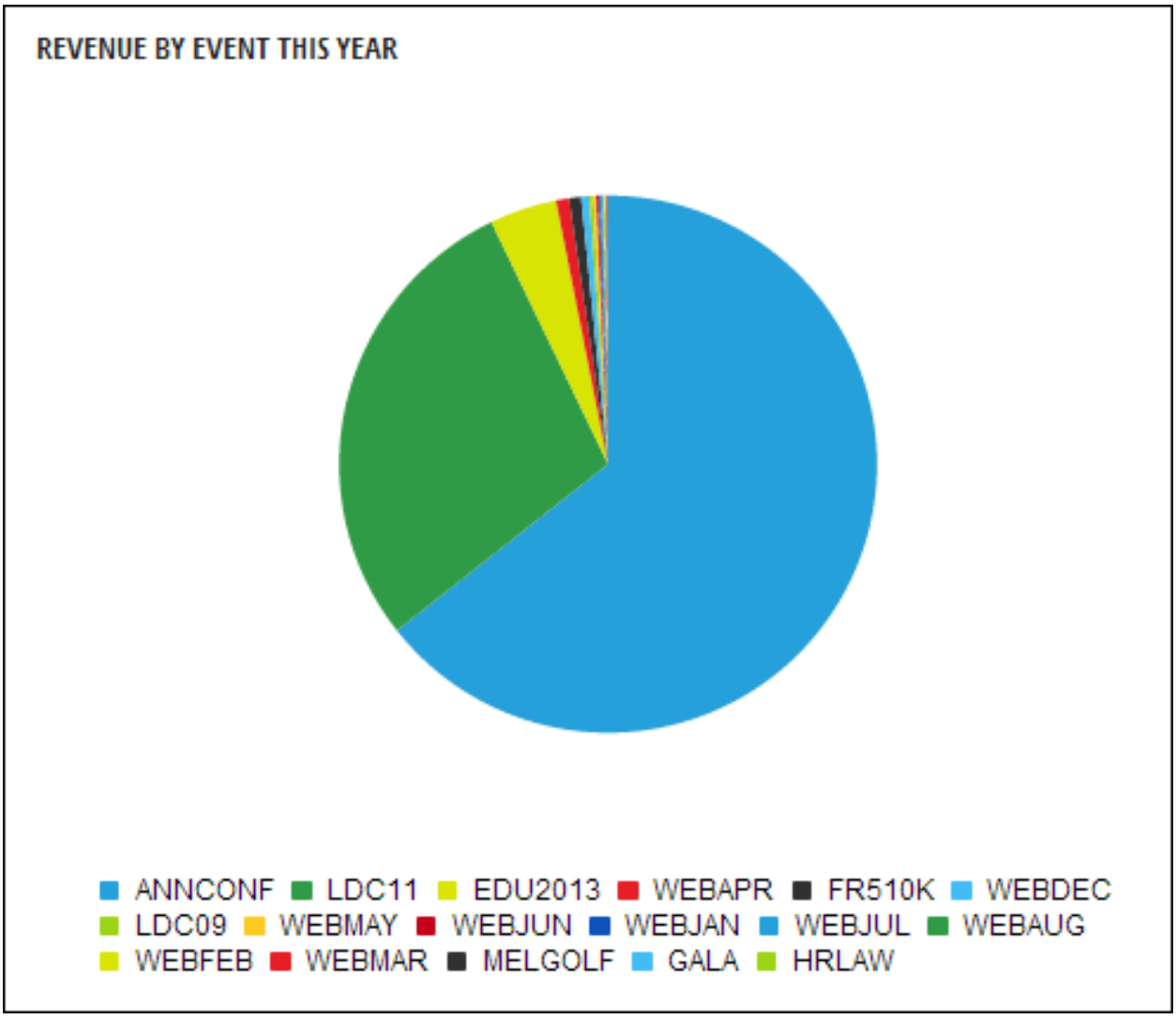
Displays data as a series of data points connected by a line to illustrate trends. For example, create a line chart that shows the number of contacts in your organization by customer type.




**Note:** You can display multiple data values in a **Line** chart.

Pie

Displays data in a circular chart divided into sections to illustrate proportion.




Query Menu

Query Menu lets you merge query results into your site for tremendous utility. You can set the content item to display a query, set with whatever title, parameters, columns, labels, and sorting you need, and you can enable exports, which adds icons for sending the data to Word, Excel, PDF, and CSV.

Click to view image



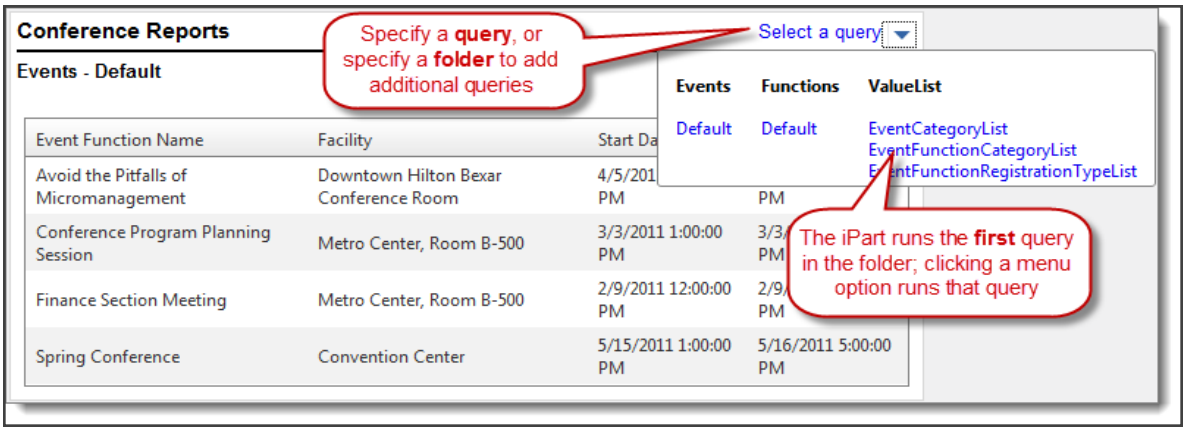
**Who is attending?**

**Conference Planning Roster**

| Registrant | Organization | Title |
|---|---|---|
| Hon. Douglas M. Kramer | | Representative, State Legislature |
| Carly L. Kowalski | GEO International | Executive Director |
| Cecile M. Faciques, CAE | International Association of Business Interests | Director |
| Charles P. Yusif | International Association of Business Interests | Manager, Education |
| Steven W. Carlson, CPA | Opus, Inc. | Controller |
| Sonya Gallora | Publications, Etc. | Executive Officer |

You can also organize helpful queries into a folder and point the content item to that *folder*. When the page loads, the content item displays the first query at the top of that folder, and it presents a drop-down menu of additional queries available, organizing them by subfolders, if any. When the user clicks on a query from the menu, the content item immediately runs that query and displays the results.

Click to view image

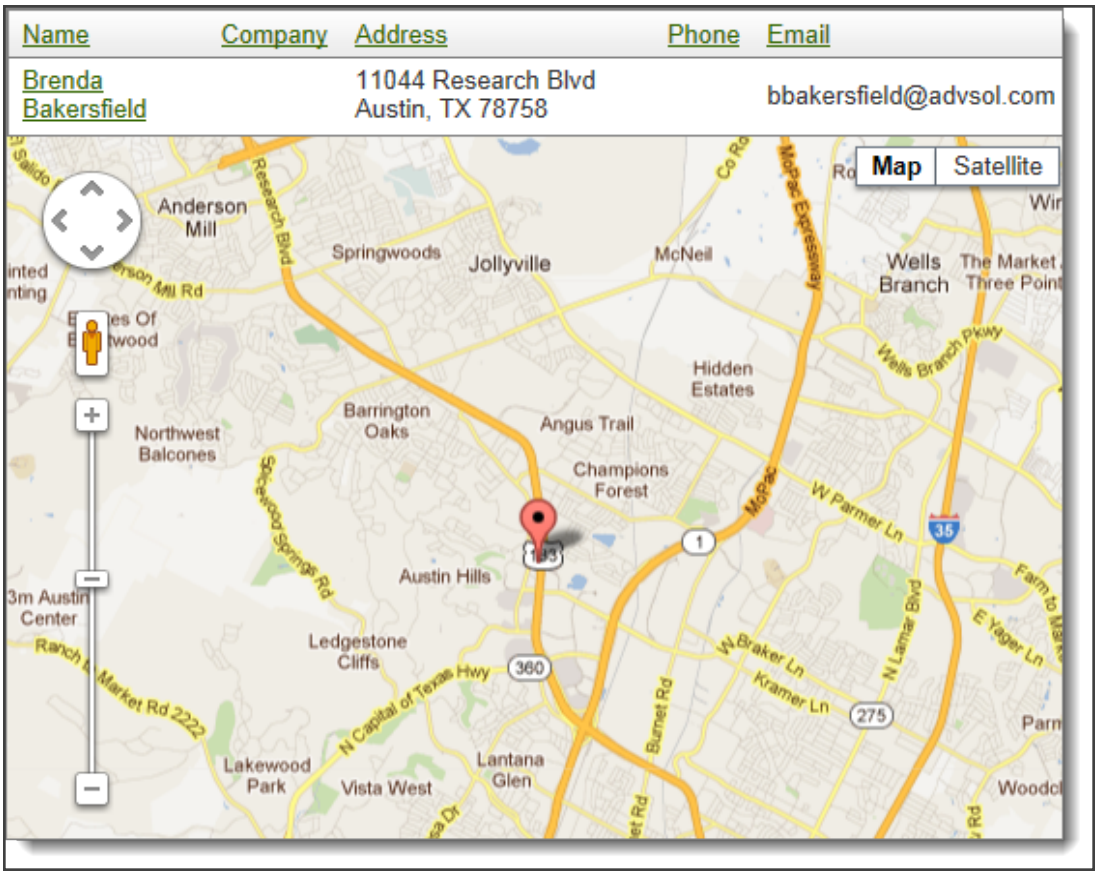



If the query selected returns contacts, Query Menu provides the ability to send an email to all of the contacts using the Communication Creator content item. You can use the Email button in the Query Menu to email the entire contact list if the query contains a

required Id column or column alias. See Creating a list of contacts to email to view a list of columns and column aliases that you can use to enable mass emailing of the contact list.

If the query selected contains an address property, you can configure the content item to automatically map the query results when an address is available. Only one address property per query can be mapped. When this option is enabled, the content item looks for the following address properties in this order and maps the first one it finds: **FullAddress**, **Address**, **FullAddressText**, **AddressText**, **Address Text**, and **Full Address Text**.

Click to view image




Related Items

With the Related Items content item, you can display a list of profile or product pictures based on the results of an IQA query. For example, you can write a query to display the profile pictures of everyone who has registered for an event, made a donation, or ordered a particular product, or to display products in the same category. You can configure the

list to display horizontally or vertically, to display a name for the item, and to choose the size of the image. You also have the option to make the profile picture a live link that opens a URL of your choosing, such as the member profile page.

Guidelines for working with the Related Items content item

- The pictures displayed in the content item are based on iMIS product or contact IDs. When creating the query for this content item in IQA, you must select a property that returns an iMIS product or contact ID on the (**Display** tab). Give this property an **Alias** of **key_Id** (the Alias is case sensitive).
- To define the image to display for each record, include a column in your query that specifies the image file name for that record. Give this property an **Alias** of **Image**.
- To display a name for each record, include a column in your query for the name of the item or contact. Give this property an **Alias** of **Name**.
- When you add **Display** columns to the query in IQA, they become available within the content item as Filter columns to filter on.
- You can dynamically filter the query results displayed in the content item based on the value of another content item's URL parameter. For example, you can set up your donation page to display the profile pictures of people that have donated to a particular cause (called a distribution in iMIS). **Donation Creator** uses the URL parameter **itemid** to determine which distribution the donation should go towards. If you add your content item to the same content record as the **Donation Creator**, then you can set up the Related Items content item to look at the value of **itemid** to determine which profile pictures to display. You just have to make sure that your query includes the **CsActivity.Product Code** property, so that you can select it as a **Filter column** on the content item's configuration page. Once selected, enter **itemid** for the **Filter on URL parameter**, so that the content item knows to filter the results based on that URL parameter's value.

Example: Display other products in the same category

In this example, the Related Items content item is set up to display clickable images for other products in the same category as a particular product. This example uses content installed for the sample Member site.

1. Go to **Page Builder > Manage Content**.
2. Click **Core Content > Shop > Store Layouts > Item Detail**.

> **Note:** The **Item Detail** content record displays product pages in the Member sample site's Shop. The product displayed is based on the value of the URL parameter iProductCode. iProductID.

3. Select **Add content > Utility > Related Items**.
4. For the **Source query**, click **select**. Navigate to **$ > Samples > RelatedItems** and select **Related Products**.
5. **Filter Options** dropdown, select **ProductCategory**. ProductClassKey.
6. **Filter on URL parameter**, type in **Category**.
7. For the **Items link to (URL or shortcut)**, type in:

   ```
   ItemDetail?iProductCode={key_Id}&Category={ProductCategory}
   ```

   This uses the ItemDetail shortcut to link each item in the list to the product page. The particular item's product ID and category are specified in URL parameters so that the correct product and related products are displayed in the resulting product page.
8. Click **Save & Publish** to complete the content record.

Example: Display other users who have purchased a product

In this example, the Related Items content item is set up to display clickable profile pictures of other users who have bought a particular product. This example uses content installed for the sample Member site.

1. Go to **Page Builder > Manage Content**.
2. Click **Core Content > Shop > StoreLayouts > Item Detail**.

> **Note:** The **Item Detail** content record displays product pages in the Member sample site's Shop. The product displayed is based on the value of the URL parameter iProductCode.

3. Click **add content > Content Types > Utility > Related Items**.
4. For the **Source query**, click **select**. Navigate to **$ > Samples > QueryProfilePictureList**. Select **Orders**.
5. **Filter column** dropdown, select **ProductCode**.
6. **Filter on URL parameter,** type in **iProductCode**.

7. For the **Items link to (URL or shortcut)**, type in:

   ```
   MBR/Party.aspx
   ```

   This redirector web page looks for an ID in the URL parameter and then checks the ID's party type and the user's permissions to determine which content record to display. The user's ID is appended to any URL specified in this field.
8. Click **Save & Publish** to complete the content record.

Progress Tracker

With Progress Tracker, you can visually display progress towards a goal based on the results of an IQA query. For example, connect this content item to a fundraising query, so that your members can easily track the progress of a fundraising effort towards a specific goal. Or connect it to an events query, so that you can see at a glance how many people have registered for an event.




To set up the Progress Tracker

1. Create a query for the Progress Tracker.

   **Note:** For sample queries that will work with this content item, see **$/Samples/ProgressTracker/** in IQA.

   The Progress Tracker uses three pieces of information supplied by an IQA query: a goal amount, the sum total of what you are tracking, and the end date (which is optional). When you build your query for this content item, it must contain specific aliases. In IQA, create a new query and choose the business object you want to query on. Make sure you are in **Advanced Mode**, then from the **Display** tab, choose properties to assign the

following aliases to:

- **Goal_Amount**: Indicates which property is the goal amount. You can apply this alias to a property of a business object, or apply it to a **Custom SQL Expression** property. For example, add CAST(25000 AS INT) as a property to set the goal amount to 25,000.
- **Sum_Total**: Indicates which property is the amount to be summed. The percentage displayed in the Progress Tracker is based on this amount compared to the goal. It can be a monetary amount or any other number, such as the number of event registrations.

  > **Note:** From the **Function** dropdown list for this property, select **Sum**, so that only one row is sent to the content item. This is not required, but it will improve performance.

- **End_Date**: Indicates which property specifies the end date. This alias is only required if you want to display an end date in the content item. You can apply this alias to a property of a business object, or apply it to a **Custom SQL Expression** property. For example, add CAST('2012-12-25' AS DATE) as a property to set the end date to 25 December, 2012.

2. Add the content item to a content record and configure it.

a. Go to **RiSE > Page Builder > Manage content**.
b. Do one of the following:
   - Select a Content Folder and click **Edit**.
   - Select **New > Website Content**.
c. Click **add content**.
d. Go to **ContentTypes > Utility**.
e. Select **Progress Tracker**.
f. Click **OK**.
g. Enter the CSS class to style the **Progress Tracker**. Two styles have been pre-defined that you can use in the content item: **ProgressTracker** and **ProgressTracker2**. You can edit these classes to change the look and feel, or you can create your own style for the Progress Tracker.
h. Select a **Source query**.
i. (optional) Select a data column by which you want to filter. You can use this feature to dynamically update your **Progress Tracker**, based on the value passed to it in the URL. If you choose to filter on a data column, then also enter the name of the **URL parameter**,

which the content item uses to identify the value to filter on. For example, to limit the results of an event query to a specific event, you can select the **EventCode** property and give the URL parameter a name such as **EventCode**. The progress displayed will then reflect only the event code which is included in the URL as EventCode=[EventCodeValue].

j. (optional) Enter any messages you want to appear in the content item. The variables below can be used in the descriptions. For example, "Help us reach our goal of {0} new members by {2}!"

- {0} displays the goal total
- {1} displays the current sum total or count
- {2} displays the end date in a long format
- {3} displays the end date in a short format

k. Select the **Caption Options**. In addition to the progress bar, you can also display the values as text. If any of the Caption Options are unavailable after selecting a query, this indicates that the required aliases have not been defined in the query.

l. Select the **Progress bar location**. The bar can be displayed above or below the captions.

> **Note:** You can also use this content item to display only a countdown (days remaining to a certain date). In configuration, only select the caption option Display days remaining, then for the Progress bar location, select (None).

m. Click **OK**.

SSRS Report

The SSRS Report content item lets you display the results of any IQA query on any page where you place it. SSRS Report uses the version 10.0 ReportViewer, which supports IE8 natively and, in IE8, adds a **Print** button on its toolbar. You can add the SSRS Report content item to any content page using CM: open the Utility folder and choose the content type **SSRS Report**.

This content item lets you customize whether to display the export buttons for PDF and Excel versions of the report. You can change the default design (layout, colors, fonts) of your reports by editing the SSRS parameters in the **SystemConfig** table.

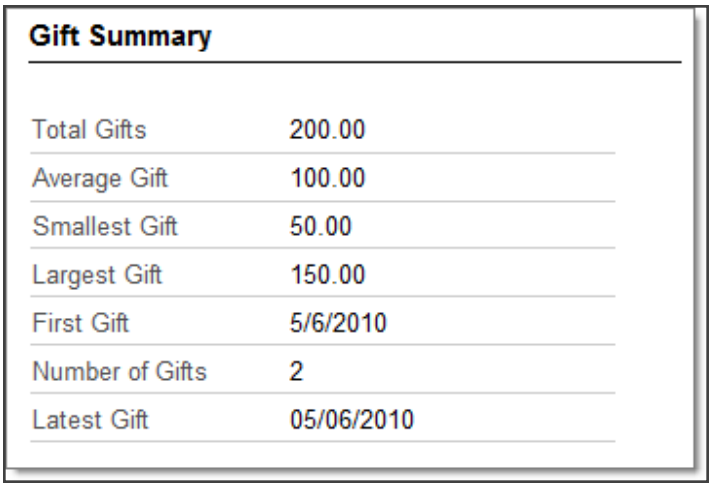
*How it works*: The process engine specified by the content item loads a report template (.RDL file) from the document system and creates a report data source (a DataTable) based on an IQA query's SQL source; the report viewer then combines the template and query to generate the report's output. When you configure the content item, you specify the Document system path to the SSRS Report runtime, which must be a link to an SSRS Process Engine. Click the select link next to the textbox, then browse to your reports (such as **$/Samples/ReportingServices**), and pick one of the runtime entries.

**Note:** Identify a process engine (run-time report) by the arrow on its icon!

Summary Display

The Summary Display content item displays a single row of query results in a form view.

Click to view image



**Gift Summary**

| | |
|---|---|
| Total Gifts | 200.00 |
| Average Gift | 100.00 |
| Smallest Gift | 50.00 |
| Largest Gift | 150.00 |
| First Gift | 5/6/2010 |
| Number of Gifts | 2 |
| Latest Gift | 05/06/2010 |

Guidelines for queries displayed in Summary Display

When creating a query that you want to display in the Summary Display content item, keep the following guidelines in mind:

- This content item only displays a single row of query results.
- If you connect the content item to a query that returns more than one row of results, only the first row is displayed.

**Note:** You can dynamically filter your query results by the currently logged in user, a selected contact, or a date. See Adding dynamic filters to queries for more information.

### Panels and custom data

*Panels* are custom displays of iMIS data that you are able to name, build, arrange in grids, and add to your site. Using panels, your users can browse, edit, add, and delete their data, as you specify.

Click to view image




You can manage your custom data directly and conveniently from the web pages where you place these content items:

- **Panel Editor** (which creates panels and shows one panel)
- **Panel Collection Editor** (which *combines* existing panels into tabbed displays)

You can configure content items to let your users add and edit that data directly from their browser page. You can import your existing user-defined tables directly from the Panel Editor content item configuration. In addition, your Activity table data is automatically available as a source, so that you can use and extend that data. Panel sources can include existing user-defined tables (defined in the UD_Table table) and user-defined sources (listed in the ObjectMetaData table).

**Note:** Panels are shared: when you update one panel, it updates within every content item that uses it.

Creating custom panels of data

In a few clicks from your browser, you can have a new panel that displays the data you want, labeled and made editable as you need.

1. Enable **Easy Edit** by clicking on the button at the top right hand corner of the screen.
2. Once **Easy Edit** has been enabled, you will find and click the icon at the bottom left corner; this is the **Page Builder**.
3. From the **Page Builder**, click **add content > ContentTypes > Content > Panel Editor**.
4. Select **(New Panel)** from the **Panel** drop-down menu.
5. Drag in and arrange your desired data, then **Save & Publish**.

Click to view image




Once you have placed a panel into a content record and published it, you can then edit the panel directly: As a system administrator, you see an Edit panel command, which lets you make quick changes to the panel, changes that save and publish for you automatically. For extensive panel work, such as to change the type of data it shows, use Easy Edit to access all of the content design features.

Best practices for panel layout

Here are key layout features to help you design the best use of screen real estate on the page:

- **Multiple columns**: Click + or – icons next to the panel layout to add/remove columns in your panel. For best display results, place multi-column panels into single-column content records.
- **Hide in Summary View**: Check this box on certain properties to trim the initial display of the content item to the read-only information that is most useful. Only when users open

the full window for viewing or adding/editing (as you configured it) do they see the additional information.

- **Read-only**: Check this box to provide information in read-only form while still allowing users to edit other information on the panel.

  > **Note:** To prevent editing of all of the properties, simply disable **Allow users to edit** on the content item configuration, rather than in the Panel definition.

- **Collapsible panel**: In order to maximize utility and minimize scrolling on the page, users are able to click on the arrow to expand and collapse content items.

  > **Note:** Be sure to add an optional **Title** to any content item that you make collapsible, so that title bar text guides your users as to what information they will access by clicking **Show**.

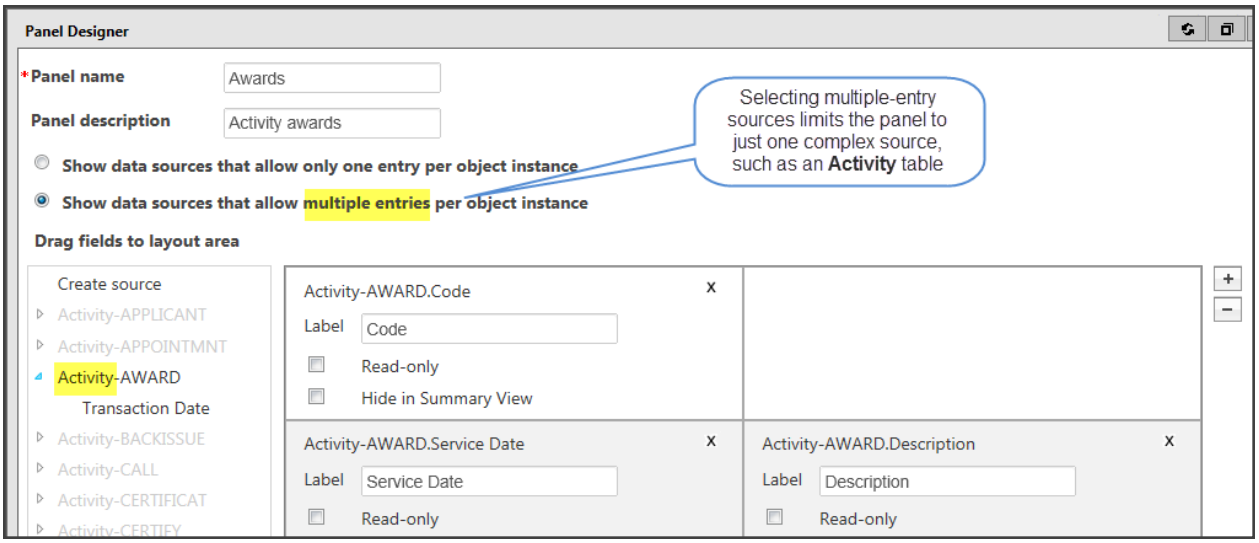
Panels for Activity data

Most organizations need to show activity information on their websites. All of the **Activity** data in your iMIS database appears as complex (multi-entry) sources when you use Panels.

Suppose you created new award types in the general lookup table called AWARDS and want to add them to a page for dynamic editing. In a few clicks, you can have exactly that:

1. Enable Easy edit.
2. Click **add content**.
3. Go to **ContentTypes > Panel Editor**.
4. Click **OK**.
5. In the **Panel** list, select **(New panel)**.
6. Select **Show data sources that allow multiple entries per object instance**.
7. Drag in your new data sources.
8. Click **Save & Close**.
9. Select **Allow users to edit**.
10. Click **OK**.
11. Click **Save & Publish**.
12. Click to view image

All of your **Activity** data appears as available sources when you select multiple entries for the type of data source.




> **Note:** If you want to combine data from different sources, be sure to show simple sources (the first radio button option). Only one complex table can display in a panel, so the others are grayed out as long as any one of them has properties placed in the panel.

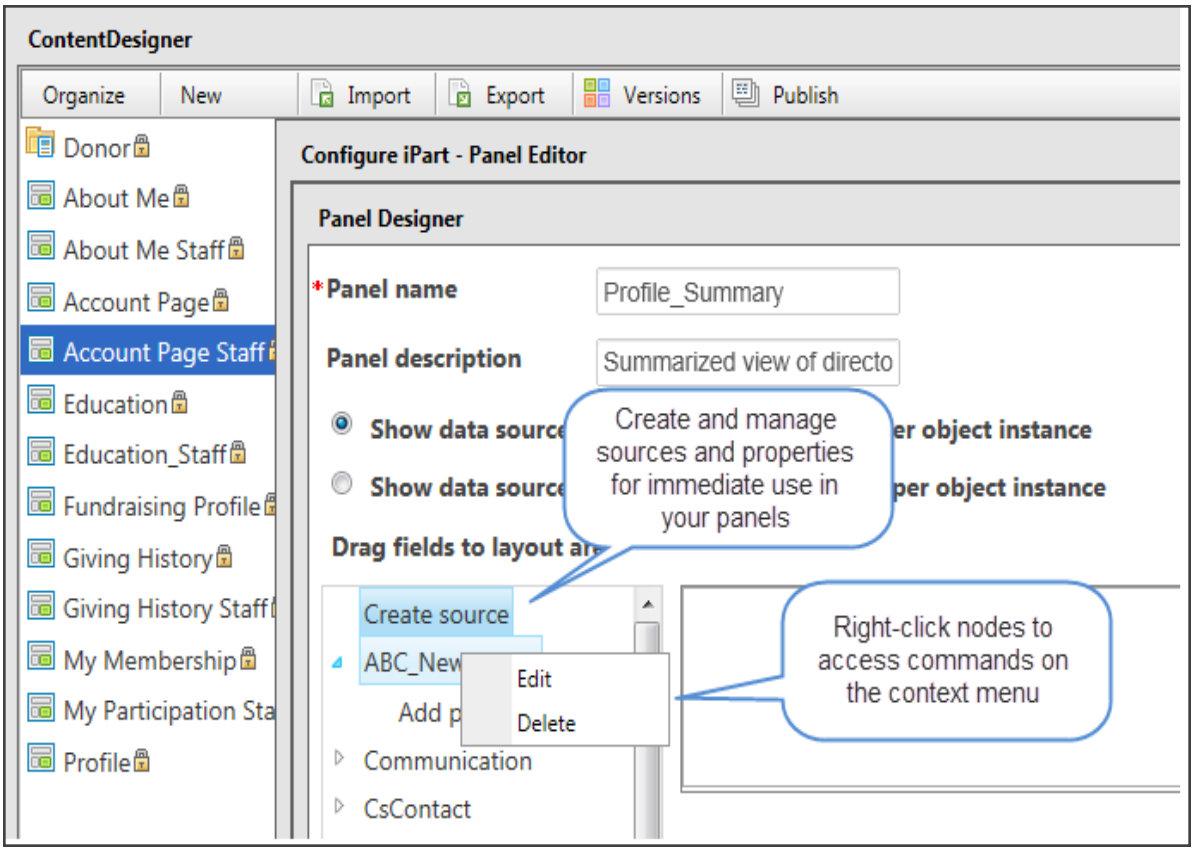
Defining your own data with Panel Designer

With the Panel Designer, you can not only craft reusable panels that combine fields from many tables, but you can also define new data structures (business objects and properties) to manage information for your organization. Without special tools or knowledge of the iMIS schema, you can add data sources on the fly, right from your browser. When you save the panel, you have saved your newly created data sources as iMIS business objects.

> **Note:** You can see your new data source show up as a business object in Business Object Designer, but it will be read-only: continue to edit and manage these special sources in Panel Designer itself. A **ContactKey** is automatically generated for the business object that represents the panel data source. The **ContactKey** is a unique

value used to join the business object to other panel data sources and business objects in IQA. It is also used as the **iMIS ID** for linking in IQA.

Access the **Panel Designer** by editing or creating a panel in a **Panel Editor** content item:




To create a new panel source and properties

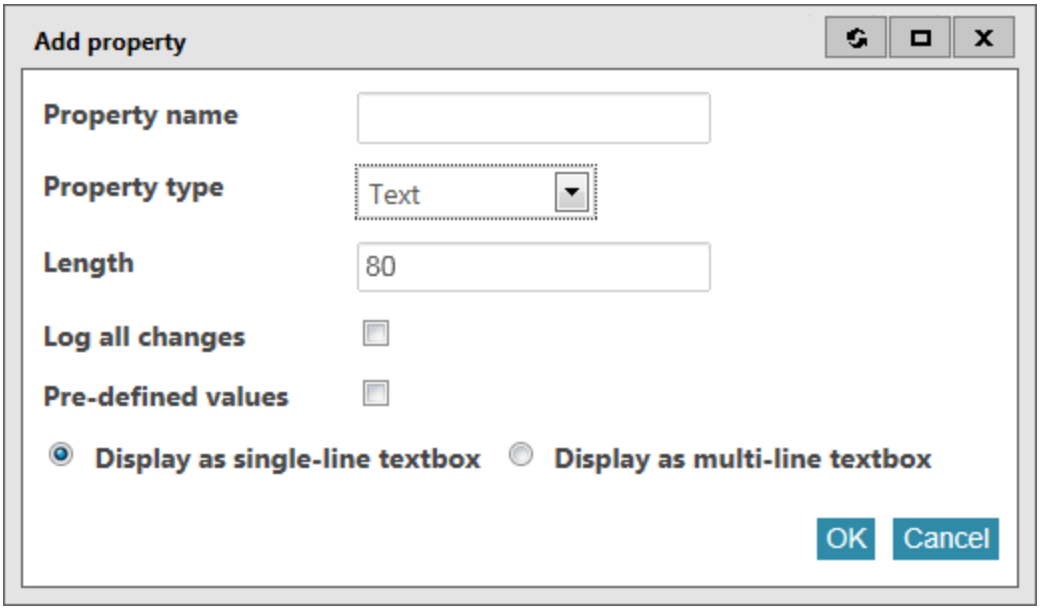
To create your own data source with properties, you work within Panel Designer. Each new source you create is available for immediate use in the current panel, but it is not limited to it: when you **Save** the panel, that new business object is saved into iMIS for use throughout the system. Once you save it, you cannot rename it.

1. Select **New > Website Content**.
2. Click **add content**.
3. Go to **ContentTypes > Content**.
4. Select **Panel Editor**.
5. Click **OK**.

6. From the **Panel** drop-down list, select **(New panel)**.
7. At the top of the source tree, select **Create Source**.
8. Choose a **Name** for each new Source that meets these criteria and click **OK**:
   - Starts with a letter
   - Contains only letters, numbers, and underscores
   - Is unique across iMIS, not matching any existing iMIS data or SQL Reserved Words

   > **Note:** Use an organizational prefix (such as ABC_*) so that your sources are unique, sort together in the tree view, and are easy to identify as ones that *you* created.

9. Select Add Property for the new source added.
   Click to view image




10. Enter a **Property Name**.
    - Starts with a letter
    - Contains only letters, numbers, and underscores
    - Is unique within its Source
11. Choose a property type that best fits your purpose, within these valid ranges:
    - **Currency**: 19 total digits (precision), with 4 digits to the right of the decimal point (scale). The default masking shows 2 decimal places.
    - **Date**, **Date and Time**, **Time**: January 1st, 1753, through December 31st, 9999

- **Decimal**: 28 total digits (precision), with 12 digits to the right of the decimal point (scale). The default masking shows 2 decimal places.
- **Email**: Creates a **mailto** link, which launches the user's default mail application when selected.
- **Integer**: -2,147,483,648 to 2,147,483,647 (±2 billion)
- **Text**: By default, the Text Property type allows:
- Free-form entry up to 400 characters (defaults to 80).
- Pre-defined values from a query or explicit list that display as a drop-down list at runtime:
- **Query** – For example, you may want to use a query that returns a list of countries.
- **Explicit List** – For example, you can add a list of colors the user can select as their favorite.
- **URL**: Creates a live hyperlink, which launches a new instance of the browser to open the link when selected.
- **Yes/No**: Boolean

12. Enable the **Log all changes** if you want to track any data change made to the property you are adding.

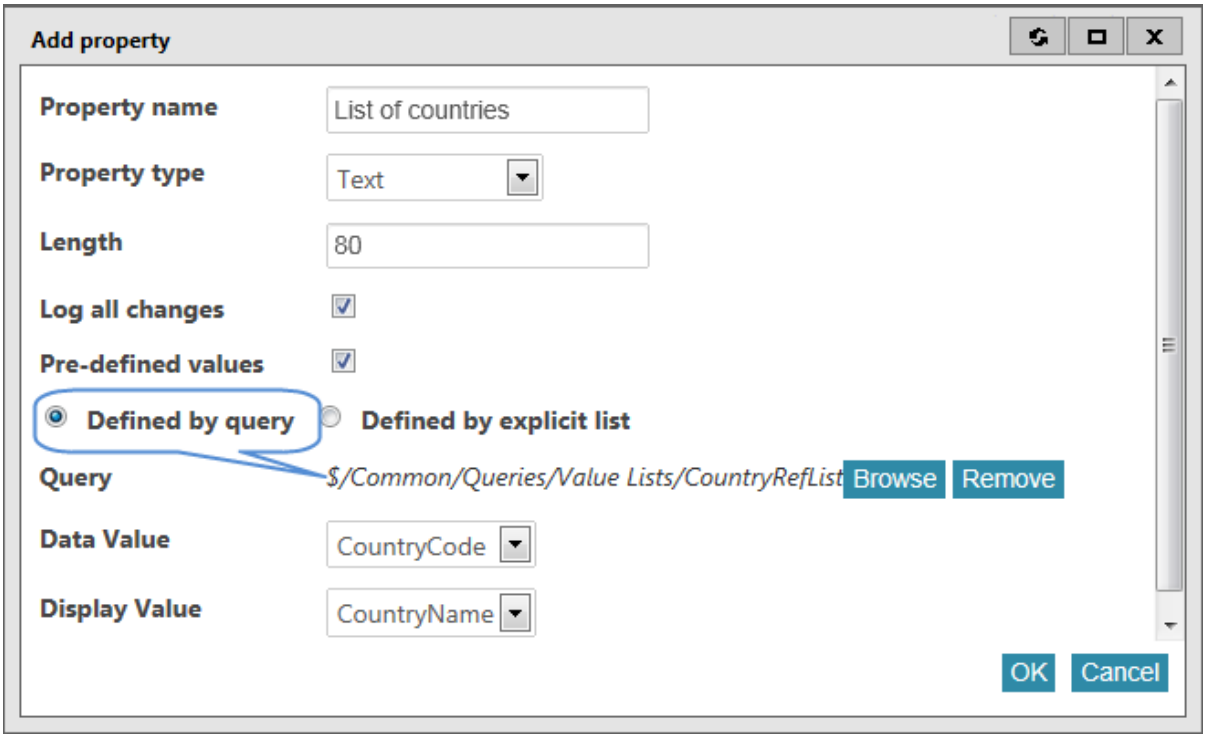
> **Note:** Add the Change History Display content item to a content record if you want to display data changes made in the Name and Name_Fin tables as well business objects.

13. (**Text Property type** only) The Pre-defined values option allows you to present a list from which the user can select.

- The **Query** option provides validation-type properties based on the query results. For example, instead of typing out a list of countries, you could select a query that displays country values.
- Enable the **Pre-defined values** checkbox and select the Defined by query option.
- Click **Browse**, select a query, and click **OK**.
- Two additional fields display, **Data Value** and **Display Value**. The **Data Value** is the field you want saved in the database. The **Display Value** is the field you want displayed in the list presented as a selection on the panel. While these values can be same, you may want to choose a different value to display on the panel. For example, the country code may not be as clear as the country name.

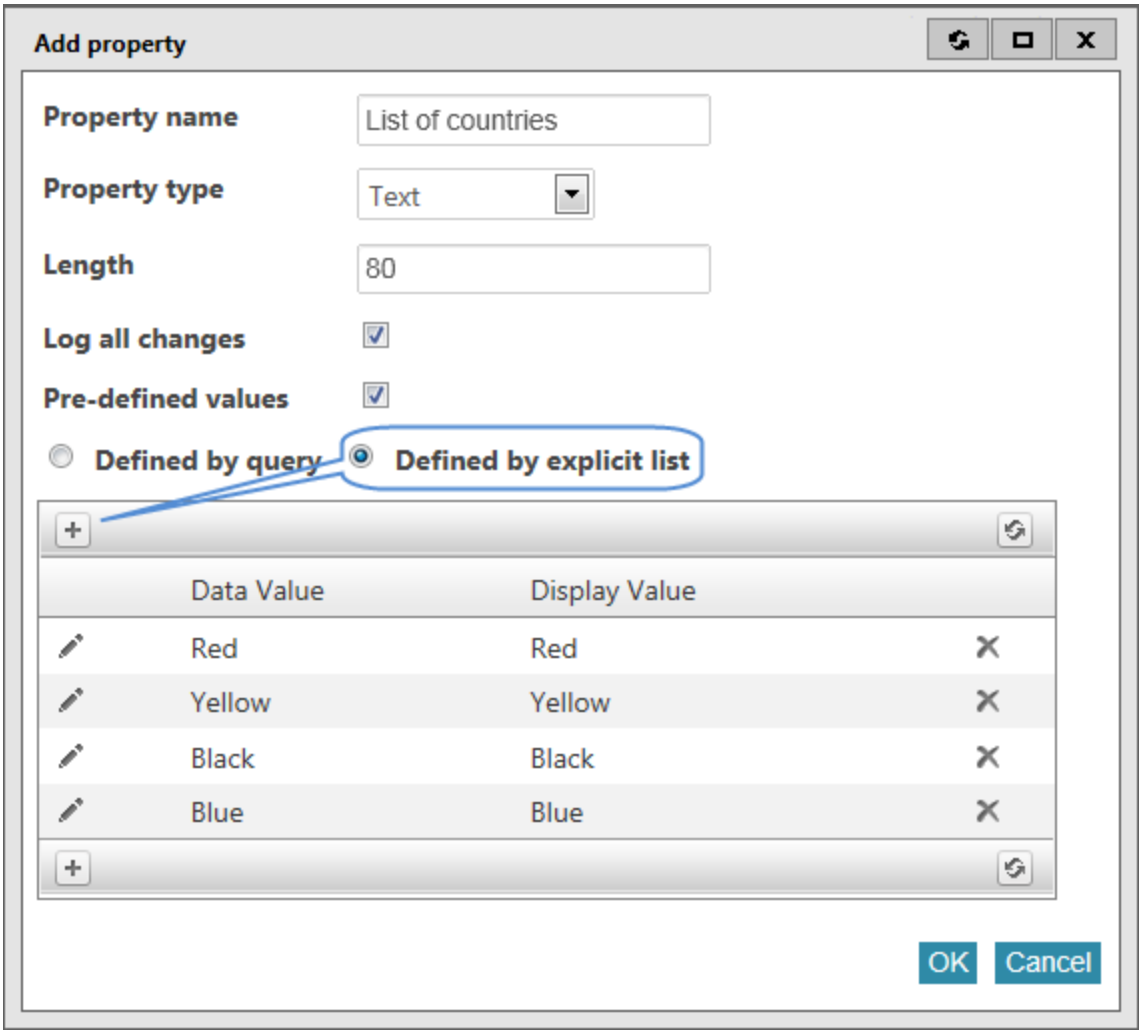
- Select the fields from the drop-down list in the **Data Value** and **Display Value** fields.
- Click **OK**.

Click to view image




- The **Explicit List** option allows you to create a list to display on the panel. *For example*, you may want a user to select their favorite color.
- Enable the **Pre-defined values** checkbox and select the **Defined by explicit** option. A table grid displays.
- Click + to add a data row. The data row contains two icons: **Insert** and **Cancel**, and two fields: **Data Value** and **Display Value**. The **Data Value** is the field you want saved in the database. The **Display Value** is the field you want displayed in the list presented as a selection on the panel. While these values can be same, you may want to choose a different value to display on the panel.
- Enter the appropriate values in the **Data Value** and **Display Value** fields.
- Click the checkmark located to the left of the data row.
- Click + to add additional data rows.
- Click **OK**.

Click to view image




14. Drag the field(s) to the layout area.

> **Note:** You can also double-click a property to add it to the next available space in the layout area.

15. **Save** the panel to save the source and properties. Once you save a property, you cannot rename it. Note that the sources will alphabetize properly on reopening.

    Each new property you create is available for immediate use in the current panel, but it is not limited to it: when you Save the panel, that new business object property is saved into iMIS for use throughout the system. Once you save it, you cannot rename it.

> **Note:** Do not save until you create all of the properties. This way, you can view them as a set of properties and improve your naming convention before it is finalized.

16. Save and close the **Panel Designer** window.
17. **Save & Publish** the content record.

Editing explicit value lists

As a Staff user, you are able to edit virtual dynamic business objects that were created using the Panel Designer.

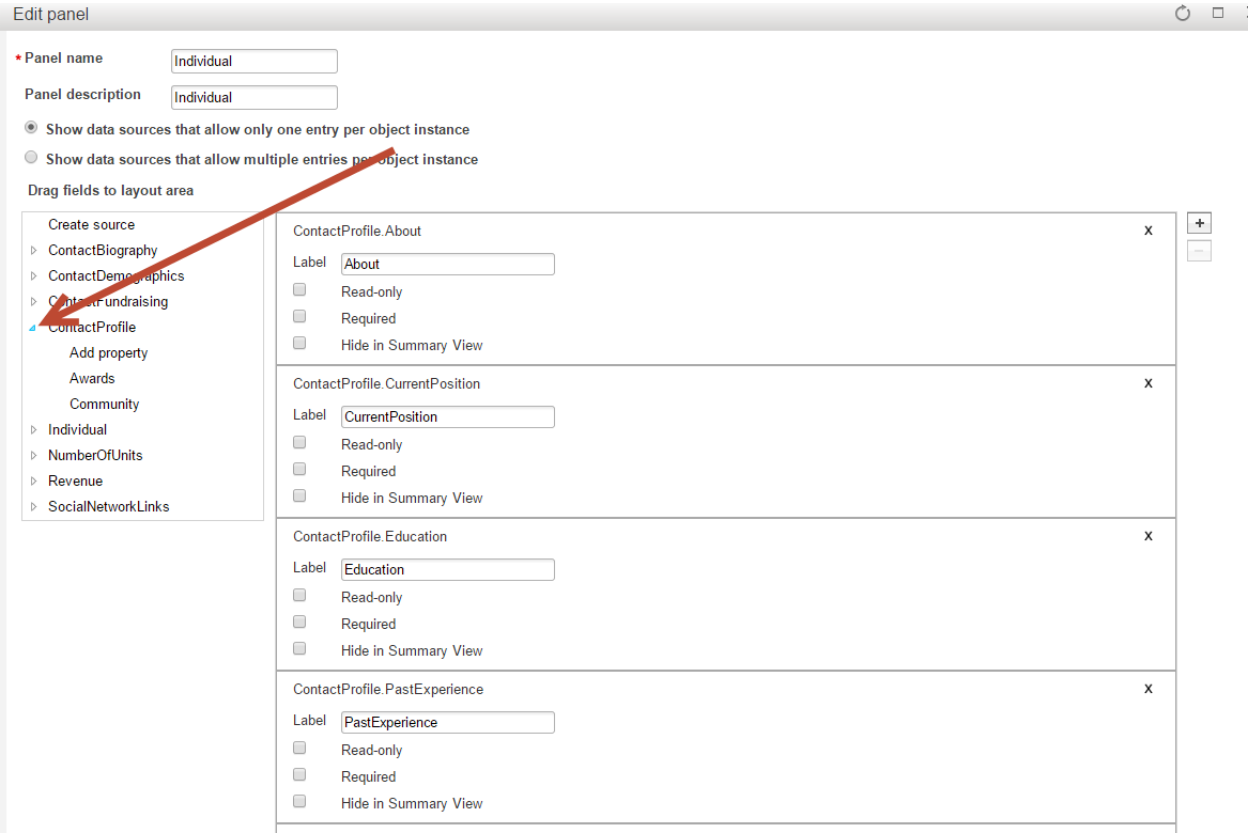
1. In the Staff site, turn on **Easy Edit**.
2. Navigate to the property you want to edit.
3. Select the **gear cog** icon.

   Click to view image

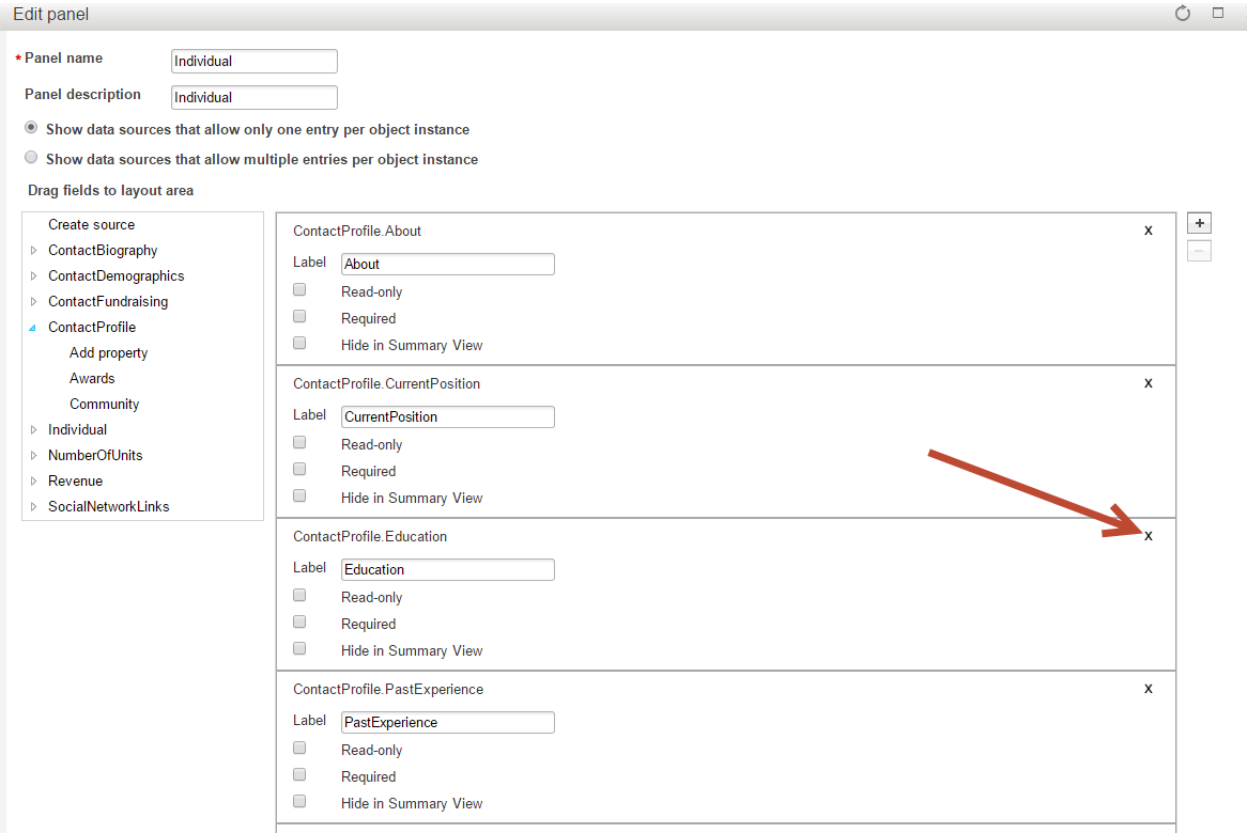



4. The design view of the panel will display. **Expand** the source you want to edit.

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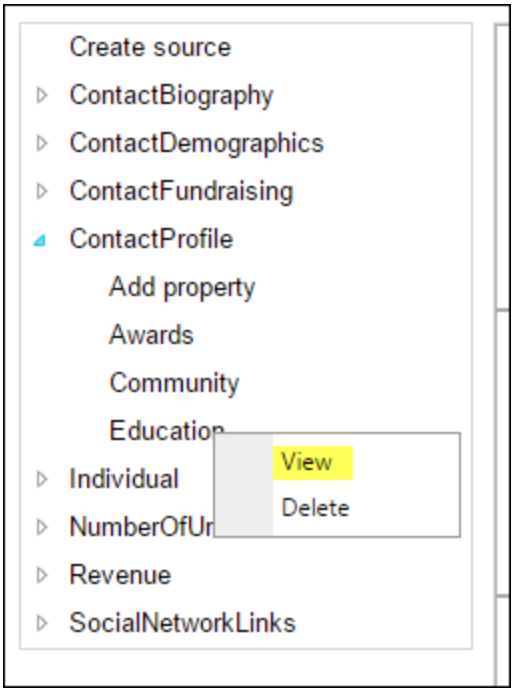



5. In order to continue with the edit, you must remove the field from the display grid. Click the **X** to remove the field.
   Click to view image



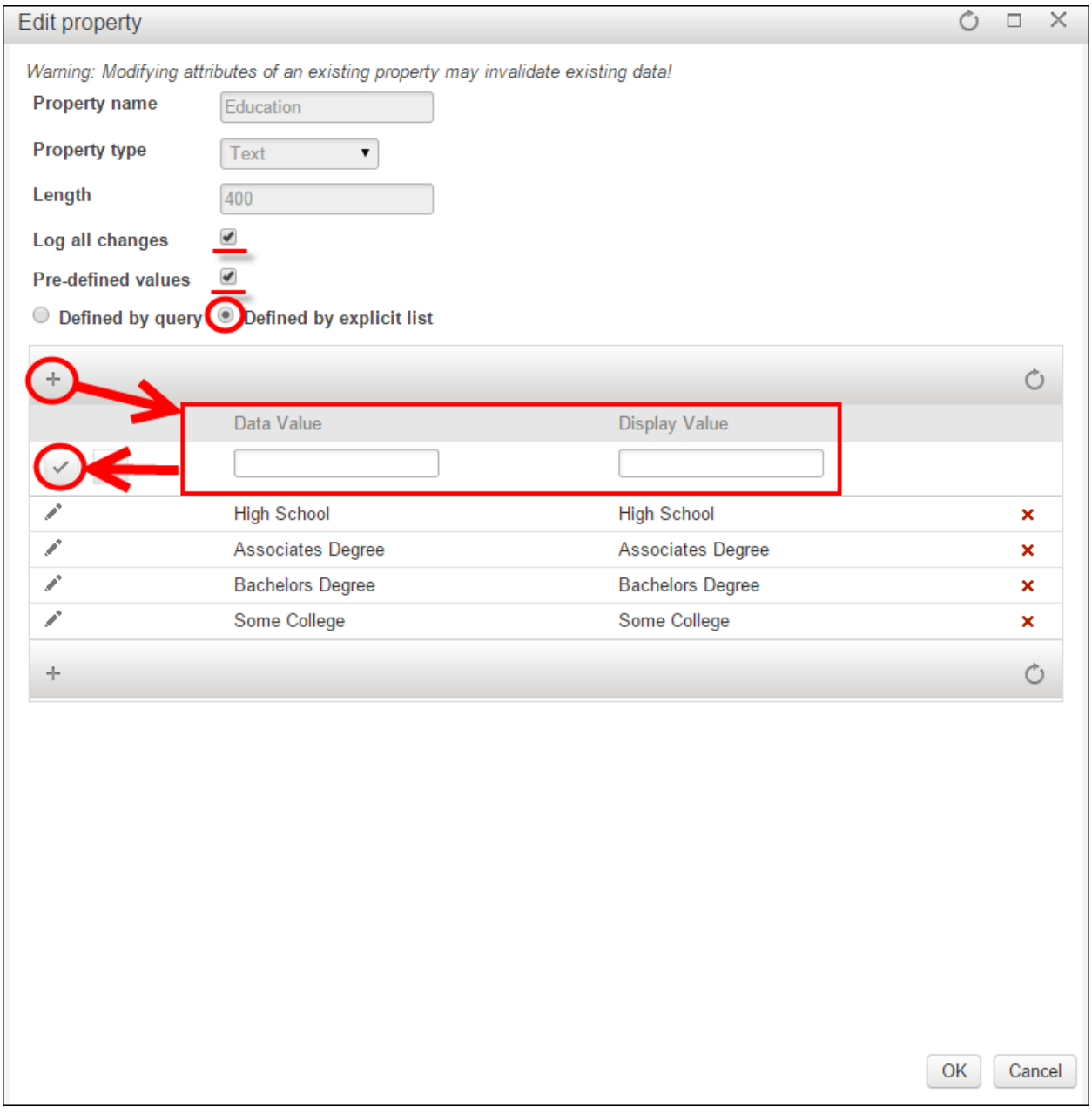

6. Right-click on the property in the left pane and select **View**.

   Click to view image



7. **The Edit property** window displays:
   - Select **Log all changes** and **Pre-defined values**.
   - Select the **Defined by explicit list** radio button.

   Click to view image

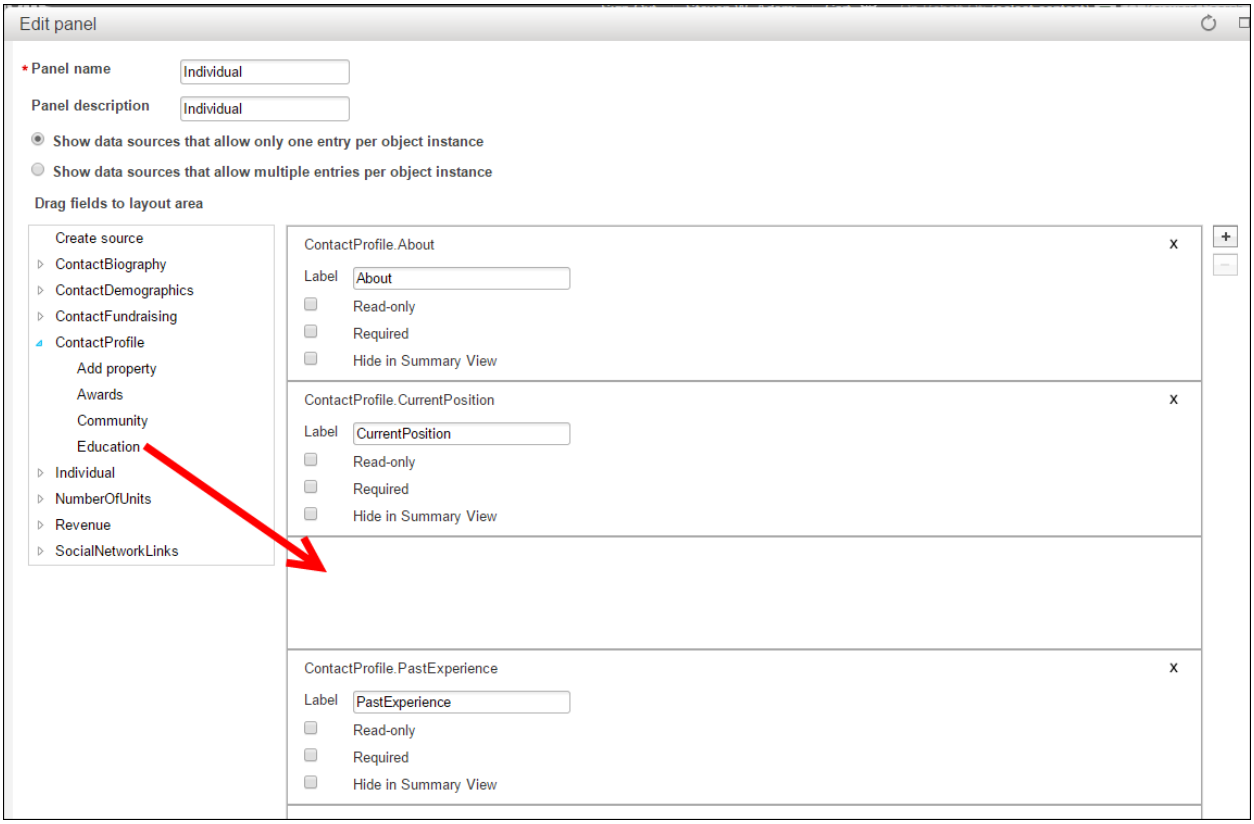



8. Click the **+** icon to add values. Enter the value in the **Data Value** and **Display Value** fields. Click the **check** button to save the entry on each line.

> **Note:** The new values you add will appear at the bottom of the list in the edit property window. However, when the list of values is displayed for selection by a user, the new values you added will display in alphabetical order.

9. Click **OK**.
10. In the **Edit Panel** window, click and drag the property back into the display grid.

    Click to view image

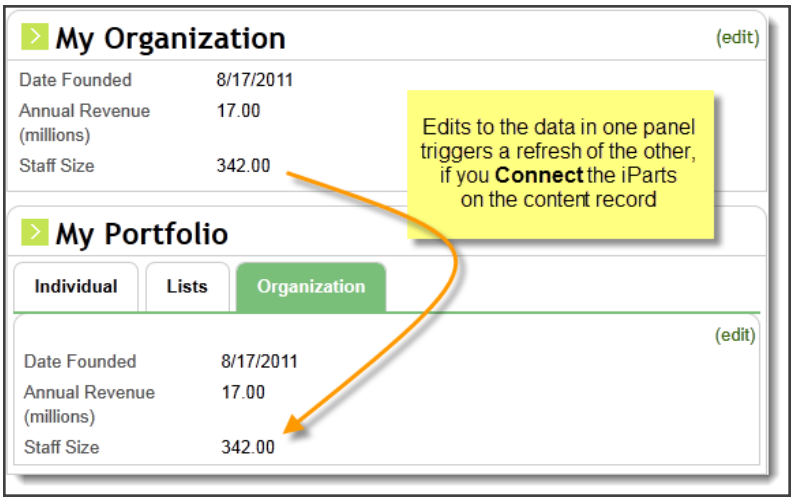



11. Click **Save & Close**.

Connecting content items to refresh panels

When you combine panel-displaying content items on the same content record, data might appear out of sync after the user edits it, if both panels display the same property. You can solve this refresh problem through the content item's **Connect** feature, which you enable separately from **Configure**.

Click to view image




> **Note:** Check a content item's configuration Help topic to find out if it supports any connection options. A content item has no connection support (neither consumer nor provider) unless its author added it.

To connect panels for dynamic updating

1. Edit a content record and add two user-editable content items that display panels (*Panel Editor*, *Panel Collection Editor*).
2. Set up the first connection:

- From the *first* content item's title-bar menu, select **Connect**. The **Connect** box that opens shows you any current connections and lets you disconnect them.
- Select **Create a new connection**. The **Connect** box that pops up prompts you to create one of four connection types.

> **Note:** Do not be misled by the language of connection. The **Consumer** is the actor that triggers a refresh on another content item, and the **Provider** *provides* a pointer to itself to the Consumer.

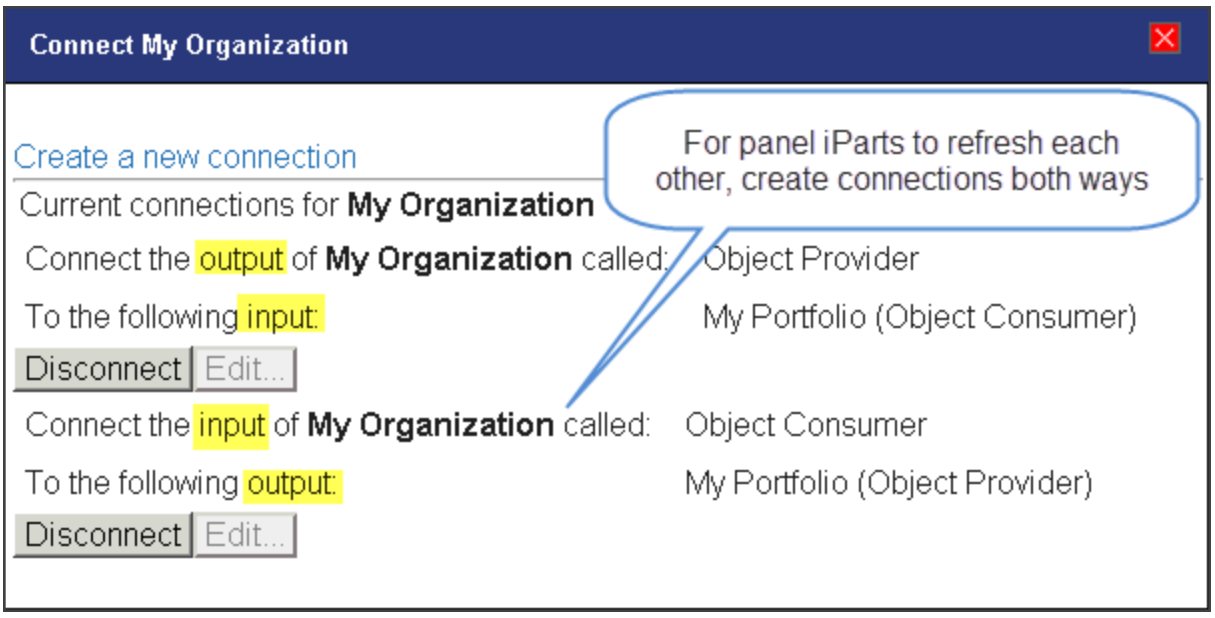
- From the **Object Consumer** drop list, select the panel content item you want to refresh.
- Select **Connect**.

3. Set up the second connection:

1. From the *second* content item's title-bar menu, select **Connect**, and select **Create a new connection**.

2. From the **Object Consumer** drop list, select the first content item.
3. Select **Connect**.
4. You should see a pair of connections, for mutual refreshing.

   Click to view image




4. **Save** and **Publish** the content record.

Adding existing business objects to panels

Panel Designer lets you create new data sources on the fly, access any user-defined tables, and make full use of the **Activity** table. It can also display your existing business objects, if they meet these requirements and configuration settings:

Referencing existing business objects

Panel Designer can display existing business objects that have a **ContactKey** or **ID** property. When **ContactKey** or **ID** is the primary key, Panel Designer treats it as a single-instance table; otherwise, it assumes it to be multi-instance.

Panel Designer cannot display your business objects until you add them to the **ObjectMetaData** table. While attached to the iMIS database in SQL Server Management Studio, run this SQL statement:

```
INSERT INTO [dbo].[ObjectMetaData] (ObjectName, RelatedToEntity, IsUser-
Defined, IsMultiInstance)
VALUES ('MyObject', 'Party', 0, 0)
```

- Replace **MyObject** with the name of the business object, table, or view that is related to Party.
- Change the last value to **1** if it is multi-instance.

Settings for Business Object Designer (BOD)

1. In **Business Object Designer**, edit your object and open the **BOD** (**Properties** tab) **>** (**Display** tab).
2. To make a property available to your panels, enable its **Available to UI?** option.

   **Note:** To see your BOD changes immediately, restart IIS.

3. To enable multiple selection for a property, select **Check box(es)** under **Display Control** so that you can enable the **Allow multiple selection?** option.
4. To enable HTML editing, select **HTML Editor** under **Display Control**. Be sure to use the property in a single-column panel to provide the control adequate width.

Troubleshooting

If you get an error when creating a new data instance at runtime (either single- or multi-instance), check that your business object does not have a 'Read-only' constraint set on the **ContactKey** or **ID** property's Definition tab.

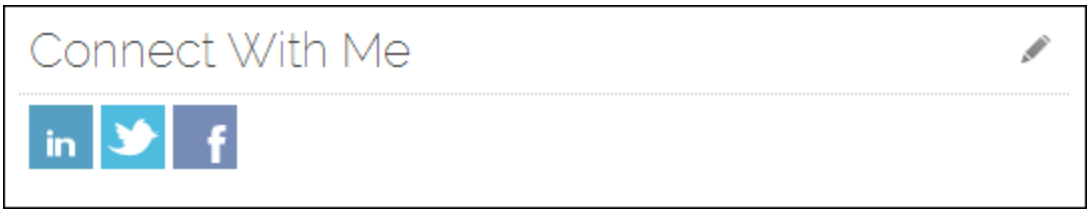
### Displaying social network profiles for contacts

The Social Profile List Creator content item displays the social network profiles for an individual user as an icon link list. Clicking on an individual social network icon will open the user's profile page for that network in another browser window. Mousing over the individual icon will display the URL of the user's profile page in a tooltip.

You can use this content item to provide a way for members to display their social network profiles in the context of their own personal account pages or on public profile pages. (You can also do this for companies and their social network profiles.) When vis-

itors click on the icons, they are taken to the site of the social network profile that the user has defined.

Click to view image



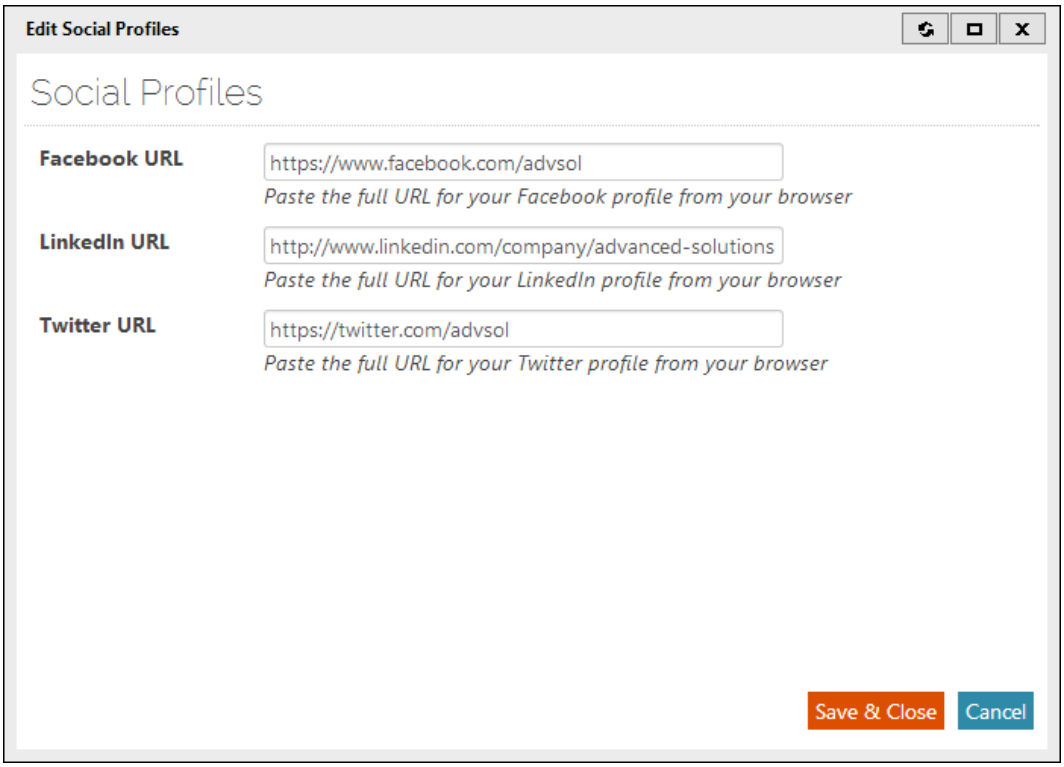

To define the social network profile URLs for your own account page, click on the edit icon next to the content item and enter the full URLs for each network. For example:

**Facebook URL**: http://www.advsol.com/profilename

**LinkedIn URL**: http://www.linkedin.com/in/profilename for an individual, or http://www.linkedin.com/company/companyprofilename for a company

**Twitter URL**: https://www.twitter.com/profilename

Click to view image



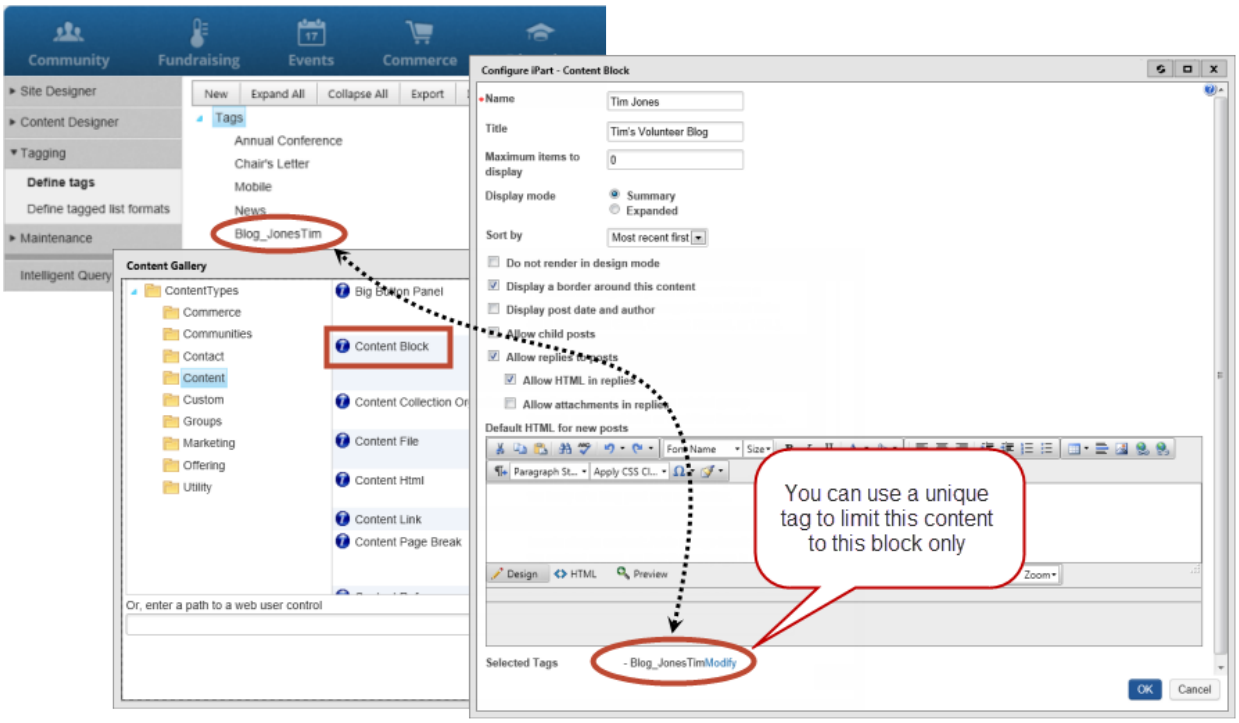
### Using the Content Block content item

With the *Content Block* content item, you can empower authorized users to create and edit content directly on a page, without using Easy edit or accessing Tools. Through the configuration, you can allow users to insert HTML content, add attachments, create child pages, and submit replies. At its simplest, a content block can be HTML that is read-only unless the user has permissions to see the **edit** command. At its most complex, a block can act as a message board with multiple posts, child posts, and replies. You can limit the number of posts to a set number, or you can leave it at the default (zero), which lets it grow indefinitely.

Tagging to filter content

To control what content appears in a *Content Block*, you create tags specific to *ContentBlock Items* and apply those tags to specific instances of the content item. For example, if you want to create a new blog for Tim Jones, you could create a ContentBlock tag such as blog-JonesT, place a new Content Block content item on a content record, and configure the content item to display the tag blog-JonesT. Now the content that Tim authors in this blog will be unique to his+ blog, if you do not apply this tag anywhere else:

Click to view image




Content created with anything other than a Content Block content item will not be displayed, even if it has the same tag. For example, a content record containing HTML tagged with News will not show up in a *Content Block* that is also using the News tag.

**Note:** Plan for and create the tags you want to use before configuring your *Content Block* content items. Content can seem to disappear if you change the tags

assigned to a content block already in use, because it no longer matches the tag set currently configured.

Creating a message board

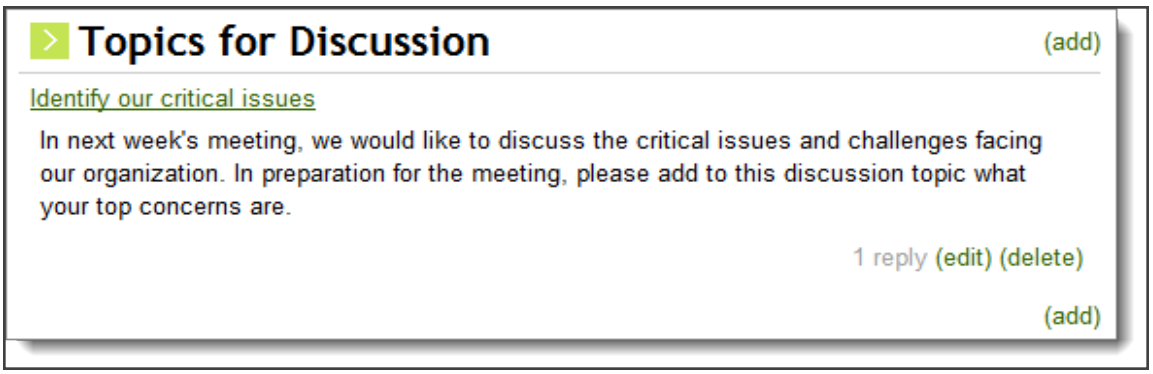
Only users with the Content Editor permission may create posts and children, but any authenticated users can reply to a post and edit or delete their own replies. Any authenticated user may create posts and children, reply to a post and edit or delete their own replies.

To use the Content Block as a message board with multiple posts, child posts, and replies, make use of the following configuration options:

- **Maximum items to display** – Choose the maximum number of posts that will be displayed; 0 indicates an unlimited number of posts.
- **Display mode** – Expanded display mode will display replies and child posts in-line, while Summary mode only shows replies and child posts when the post is opened.
- **Allow child posts** – Allow Content Editors to add a child post to existing content. Allow any authenticated user to add a child post to existing content.
- **Allow replies to posts** – Allow authenticated users to reply to posts; you may indicate whether to allow HTML and/or attachments in the replies.

Click to view image

Content Block set up as a discussion board




## Using the Content Collection Organizer

The Content Collection Organizer content item enables users to create a collection of pages and assign names to the tabs or headers for each page. In the simplest example, those pages are displayed, the user can access tabs in any order desired, and information is saved independently on each page.

Users accessing a content record with the Content Collection Organizer will only see the tabs that they are permitted to view.

On the other hand, if members with correct access settings cannot see particular tabs, the culprit could be broken links. Broken content links will result in tabs not appearing to your members. Authorized Staff can simply click on the tab to troubleshoot and fix the broken link.

Displaying in tab format

In Content Collection Organizer, content pages can be displayed in a tab format. The following screenshot shows an example content item with tabs across the top, configured to display different content pages.

Click to view image




You simply determine the number of tabs you want to display, and provide names for each tab. Then, point each tab to the content you want to display.

## Using the Content Collection Organizer to show or hide tabs

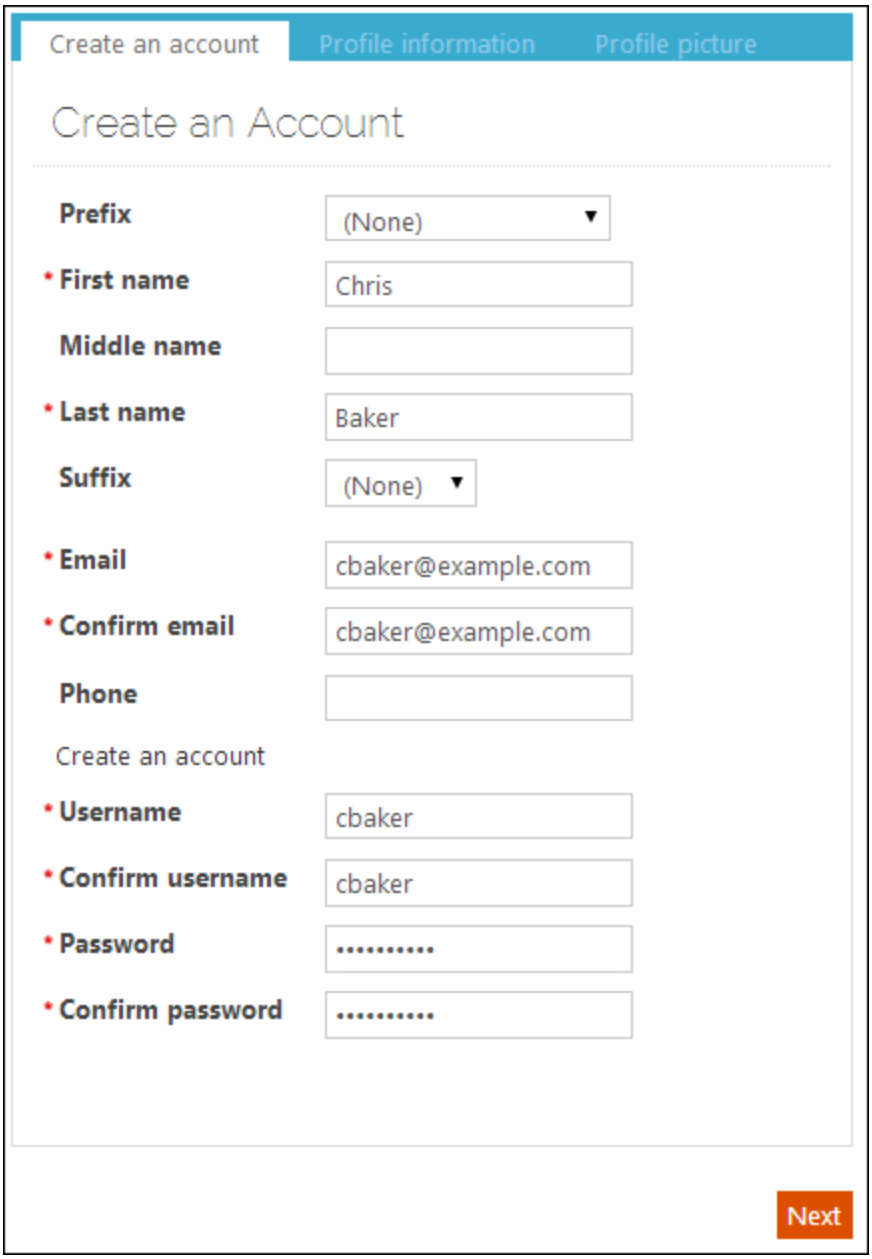
Users accessing a content record with the Content Collection Organizer might see tabs depending on the access granted. See Using Access Settings to set specific permissions for content tabs. You can also delete or break content links to make tabs no longer appear.

**Note:** Do you have members with correct Access Settings that can't see a particular tab? Planned or unplanned, broken content links will result in tabs not being displayed to your members. Authorized staff can simply click on the tab to troubleshoot and fix the broken link.

Using the Content Collection Organizer as a wizard

You can configure the Content Collection Organizer to function as a wizard. The wizard can guide a user through multiple steps of an end-to-end process, for example, setting up a new account. When the Content Collection Organizer is enabled as a wizard, **Next** and **Previous** buttons are displayed, allowing users to navigate between the steps. Users can navigate to any previous tab, but can only navigate forward to the next tab in the workflow sequence. The user can also navigate with a browser's Forward and Back buttons, but the data is not committed until the user clicks **Next**.

Click to view image




As you add steps to the wizard, you define a name for the step, as well as select the content you want to display on that step. You can also define where the wizard will take a user if a step is successful or fails.

Each page in the workflow is validated when the user clicks **Next**. If any of the data on a page is incomplete or incorrect, an error message is displayed and the user cannot proceed to the next step until the error is corrected.

You can also define the destination to which users are directed when they click **Finish** in the wizard. To do this, you must define the **Finish button redirect**. Select the **Content record or URL** radio button, then select the content or URL to which you want the user redirected. This defines the action that will happen once a user clicks the **Finish** button in a wizard process.

> **Note:** It is not recommended to point to content records that contain embedded content records. This can interfere with the behavior of pop-up windows. Also, if you are creating a wizard that is intended to be displayed in a pop-up window, it is not recommended to add any other content items to the wizard content record.

Creating an account using the Content Collection Organizer as a wizard

You can set up a Content Collection Organizer content item wizard to walk users through the process of creating an account. To do this, you must add a Content Collection Organizer content item to a content record.

Add a name for the Content Collection Organizer and a title, and make sure you select **Function as a wizard**. You can select the content to redirect a user to when they are finished with this wizard. Because we are walking users through the process of creating an account, let's redirect the user to their new account page upon completing this wizard. Select **@/iCore/Contacts/ContactLayouts/AccountPage** for the **Finish button redirect** content.

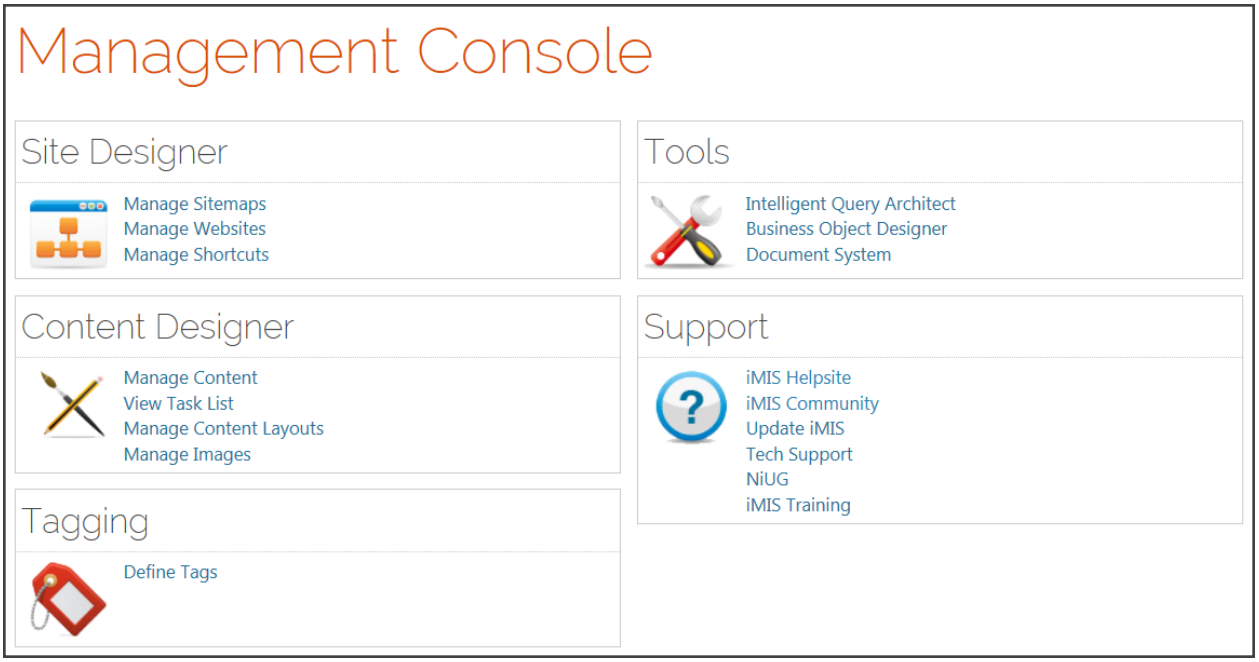
Now create a first step. This wizard is to create an account, so you are going to select a content record with a Contact Account Creator content item, for example, **@/iCore/Contacts/CreateAccount**.

The Contact Account Creator content item must have specific configuration options set. First, you must select **Hide for authenticated users**. You must also select the **Include option to create an account** and **Require username and password** options. Finally, the **Redirect to** option must be set to **Do not redirect**.

You can now add as many additional steps as you like. On the last step, a **Finish** button will be added. You have already added a redirect link for this button. Click **OK** to save your wizard, save and publish, and add this content record to your website.

### Using the Big Button Panel

With the Big Button Panel content item, you can display a navigation panel that combines a larger, category-defining image with a list of links, as shown in the screenshot below. You can also use this content item to create links that make it easy for staff to perform routine tasks for contacts such as running reports, registering for events, and ordering on their behalf.




Example: Working On Behalf Of contacts and running reports using the Big Button Panel

In this example, we will set up the *Big Button Panel* on the account page, so that staff can select a contact from the Directory, then quickly run a report, register for an event, make a donation, or order a product for that contact.

1. Edit the account page that displays after a staff user selects a contact from your directory. In the Member site, it is the **Account Page Staff** content record.
2. Add the **Big Button Panel** (**add content > ContentTypes > Content > Big Button Panel**) content item to the content record and configure it with the following settings:

- **Mode**: Actions
- **Add** an action link to run a report:
- **Link Text**: Print Info
- **Link Target**: Enter a link to a page that contains the SSRS Report content item that displays a report such as **$/Samples/ReportingServices/MemberProfileQuery_Report**.

  > **Note:** The SSRS Report content item must be configured to **Hide the parameters section** and to enable the option to **Inspect query string for parameters**. Do not enable the option to **Inspect Session for parameters**. For more information about SSRS reports, see Creating SSRS Reports.

- **URL Parameter**: ContactKey=@SelectedUser
- **Add** an action link for event registrations:
- **Link Text**: Register for an event

  > **Note:** Customize this text for the event you want to register the contact for. For example, *Register for the Spring Conference*.

- **Link Target**: Enter a link to the event page
- **URL Parameter**: EventKey=XYZ (replace XYZ with an event code) EventKey=XYZ (replace XYZ with an event key)
- **Use On Behalf Of**: Enable
- **Add** an action link for donations:
- **Link Text**: Make a donation
- **Link Target**: Enter a link to your donation page
- **URL Parameter**: (Leave blank)
- **Use On Behalf Of**: Enable
- **Add** an action link for the shop:
- **Link Text**: Purchase a product
- **Link Target**: Enter a link to your Shop page
- **URL Parameter**: (Leave blank)
- **Use On Behalf Of**: Enable

3. **Save** and **Publish** the account page.

## Using the Group List Editor

The Group List Editor provides a flexible tool for you to display and manage lists of groups, sub-groups, relationships, and/or memberships. You can configure it to serve several different purposes.

Display an organization's roster
A common use for the Group List Editor is to display a list of contacts that belong to an organization.

For example, add the content item to an organization's profile page, so that the content item displays memberships for the selected organization. Configure the content item with the following settings:

- **Allow editing**: Enable, if you want System Administrators or Staff to edit the roster
- **Clicking on a contact opens their profile page**: Enable to link contact names directly to their profile page
- **Provide option to view and edit membership details**: If you want users to have easy access to both the account pages and the Group Member Detail window, also enable this option. Users can click an icon to switch between these options.
- **Is the page context (parent) for this iPart a group?**: No
- **Display a list of**: Select *Groups owned by the parent ID and their members*
- Choose the group types to include: Organization
- 
**Note:** To limit the amount of information about an organization's members, deselect the **Allow expanding lists box**.

Display a contact's memberships
Another common use for the Group List Editor is to display a list of a contact's memberships in groups such as committees and chapters.

For example, add the content item to a contact's profile page, so that the content item displays memberships for the selected contact. Configure the content item with the following settings:

- **Allow editing**: Enable, if you want System Administrators or Staff to edit the contact's memberships
- **Clicking on a contact opens their profile page**: Not applicable

- **Is the page context (parent) for this iPart a group?**: No
- **Display a list of**: Select *Groups that the parent ID is a member of*
- **Choose the group types to include**: Select the group types you want to display, such as **Chapters** and/or **Sections**

Relationships in the Group List Editor

You can easily create a link between two contacts using the Group List Editor content item. The relationships you define show up on the record of both contacts, and you can specify roles for one or both of the contacts. For example, if you edit Jean Smith's record to indicate that she knows Russell Smith, then that relationship will also appear in Russell Smith's record. Alternately, if you edit Jean's record to indicate that Russell is her child, you can also specify that her role is the parent of Russell. Then Russell's record will reflect that Jean is his parent.

There is no limit to the number of relationships you can create or the types of relationships you can create. We have provided a few relationship types out-of-the-box, but you can add additional ones if needed.

Only users with System Administrator or Staff privileges can create relationships between contacts, but any user can view a list of relationships.

> **Note:** To use this relationship feature, you must have the RELATION license.

Creating relationship types groups and roles

Edit the Customer setup table for Relationship types, adding the relationships that you want to have available in the Group List Editor. For each relationship type you add, you can also define a Reciprocal relationship, which the Group List Editor automatically populates as a set (such as for Parent and Child).

To set up the Group List Editor to display relationships

1. Add the Group List Editor content item to a content record on which you want to display a list of a contact's relationships. For example, add it to an account page. The content item displays a list of relationships for the currently selected contact. The selected contact is determined by either a contact ID passed to the page via a URL parameter (from the Directory, for example), the contact selected in the On Behalf Of control, or the currently

signed in user.

2. Configure the content item with the following settings:
   - **Allow editing**: Enable, if you want System Administrators or Staff to edit relationships
   - **Is the page context (parent) for this iPart a group?**: No
   - **Display a list of**: Select *Both of the above*
   - Choose the group types to include: Select Relationships
3. **Save and Publish** the content record.

**Using the Content HTML content item**

Using the Content HTML content item, you can add simple content to your website, anywhere you want. In addition to the WYSIWYG functionality, you can switch to **HTML** mode to insert JavaScript to embed other sites, display web widgets, and use variables to create relative paths.

Embedding external sites

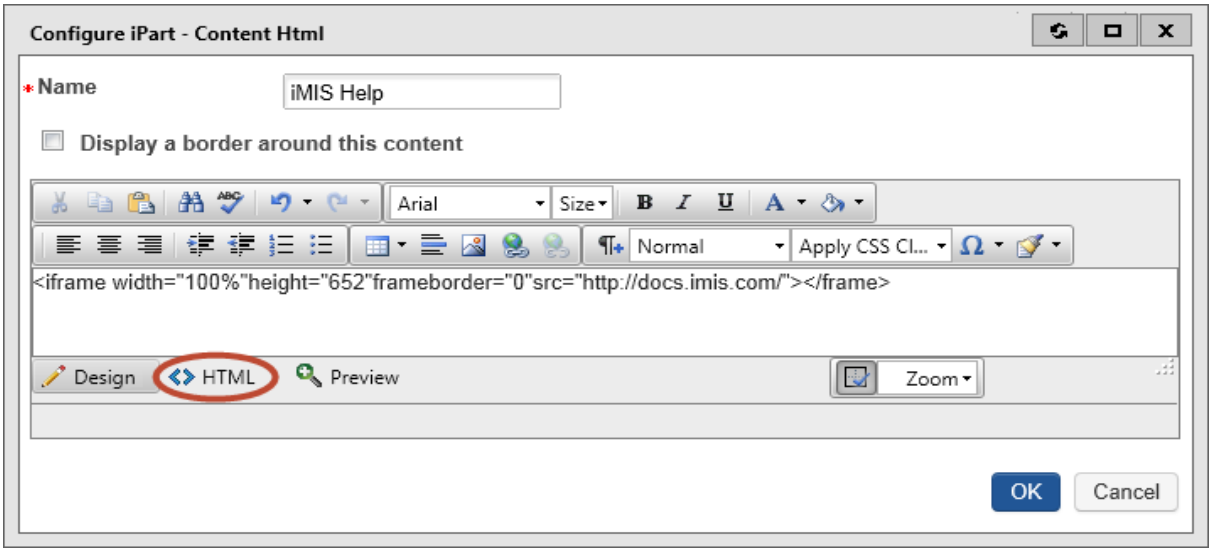
To embed any external page into an iMIS site, you can use an <iframe> like this:

1. Go to **Page Builder > Manage content** and create a new content record.
2. Select add content and place a single **Content Html** content item on it (from the **ContentTypes** folder).
3. Show the source by clicking the **<> HTML** tab and type in an iframe tag, such as this:

```
<iframe width="100%" height="652" frameborder="0" src-
c="http://docs.imis.com/"></iframe>
```

4. Go to **RiSE > Site Builder > Manage sitemaps** and create a new navigation item that points to the new content record.
5. If appropriate, restrict the navigation item's **Access Settings**, such as to **Authenticated User Full Control**.

Click to view image

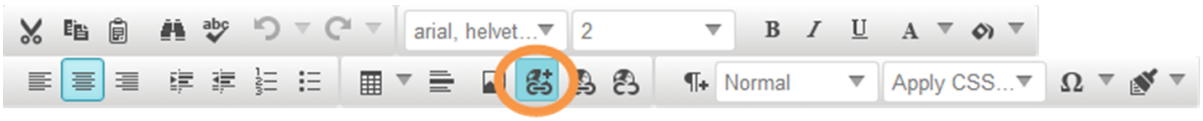



Inserting links to iMIS content

To insert a direct link to any content in iMIS onto an iMIS page, you can use the **content link manager**:

1. Create a new content record with the Content HTML content item or edit an existing record to insert a link.
2. Enter the HTML content you want to display, and highlight the text you would like to link to
3. From the editor toolbar, select the content link manager icon:

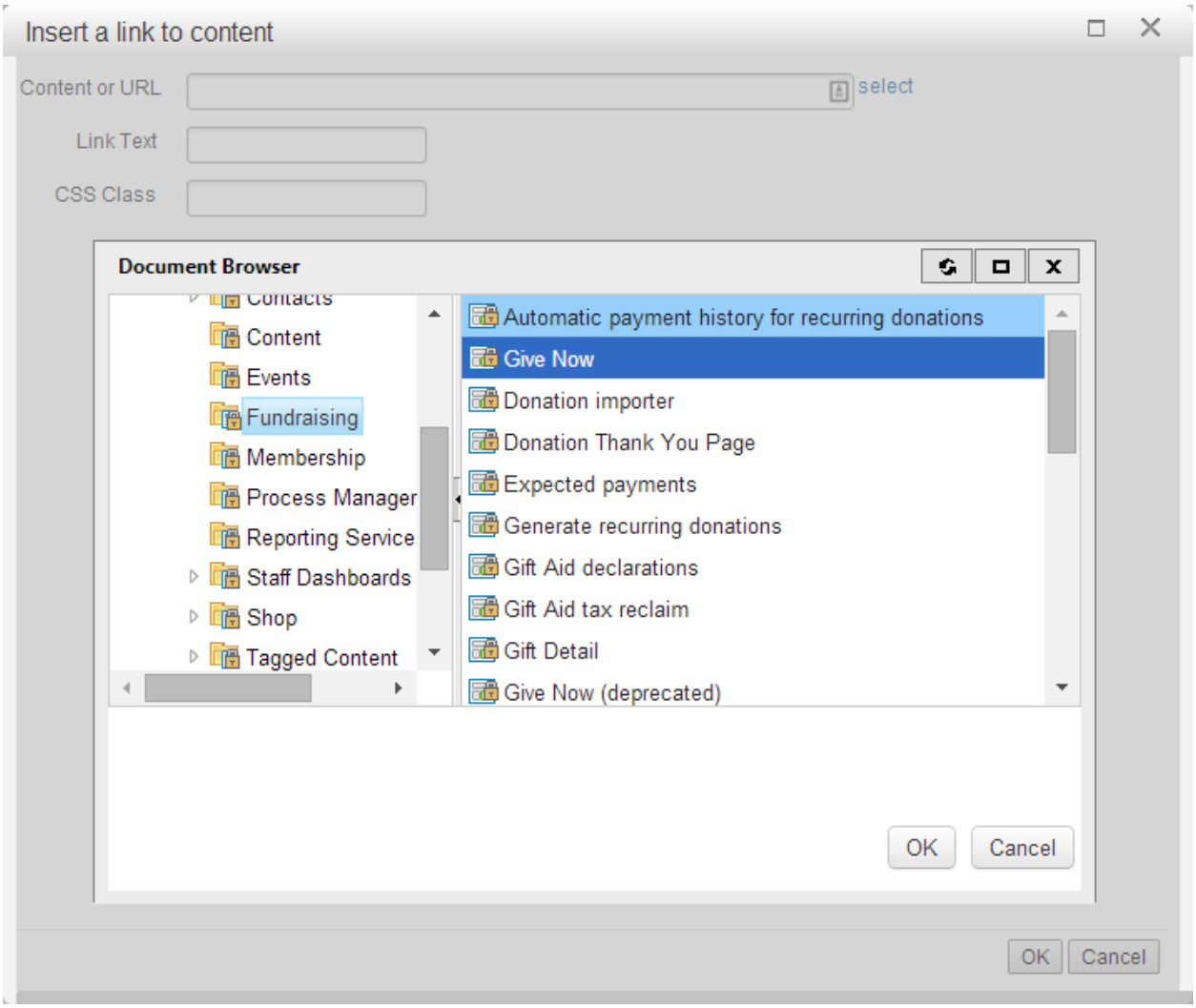
   Click to view image




4. Use the **Select** button to navigate through the Document Browser to the content you would like to link to.

   Alternately, you can type in a shortcut URL to the content you link to. This will preserve the link even if the content is moved in the document system.

   Click to view image




5. Click **OK** to insert your link.

Displaying web widgets

You can install and display JavaScript-based web widgets (plugins, gadgets) in your WCM-generated websites using the Content HTML content item. A web widget is a small program that your users can execute within a web page and that can provide a wide range of functionality.

For example, Google Gadgets offers thousands of free web widgets including mini applications, games, news feeds, maps, and a wide range of other types of content. Many other websites also provide free widgets that can access data from their site. For example, Twitter provides widgets that let you display Twitter updates on your website. LinkedIn

provides plugins that display information such as company profiles, member profiles, and links to share on LinkedIn. You just have to search the web to see what you can find that meets your needs.

> **Warning!**
>
> Only embed widgets from authors whom you trust. Malicious code may damage your computer or violate your privacy.

To add a JavaScript-based web widget to a webpage

1. Go to **RiSE > Page Builder > Manage content**.
2. Create a new content record or edit an existing one.
3. Click add content to find and select the **Content Html** content item.
4. Click **< > HTML** to switch to HTML mode.
5. Copy the JavaScript embed code for the widget you want to add and paste it into the HTML area.
6. Click **OK**, then **Save** and **Publish** your content record. The widget is displayed when that content record is rendered on a webpage.

Creating relative paths using variables

The Content HTML content item does not support the use of the **~/** (tilde slash) shortcut, often used to automatically build the correct paths when a control is rendered in different domains. However, several variables are available in this content item that allows you to enter paths for links and resources that are automatically resolved to various folders in your website. The variable names are case-sensitive.

> **Note:** Images do not render in Design mode because the variable is not transformed until the content record is published.

- **[Website]** – Resolves to the root of the website and contains the website name. Example: **[Website]Home.aspx.**
- **[~]** and **[Root]** – Both variables resolve to the root of the website. Example: **[~]Home.aspx** resolves to **http://mydomain/Home.aspx**.

- **[Theme]** – Resolves to the website's theme folder. Example: **[Theme]images/image.png**. This variable can be used to access theme resources such as images and CSS.
- **[iMIS]** – Resolves to the **iMIS** directory of the website. Example: **[iMIS]ContactManagement/CreateAccount.aspx**.
- **[Common]** – Resolves to the AsiCommon directory of the website. Example: **[Common]Controls/Shared/FormsAuthentication/Login.aspx** .

### On Behalf Of: Customer service mode

Your site is not just for self-service: **On Behalf Of** gives your staff a customer service mode, to complete website commerce on behalf of your customers. When requests for event registrations, product orders, and even membership renewal payments come in by phone, fax, or email, **On Behalf Of** lets you conduct a secure session during which you can add items to a customer's cart and complete the transaction for them, all without signing out of your own session.




Separate carts, for privacy

To avoid confusion and to protect your customers' privacy as to which items they may have added to their own carts, **On Behalf Of** sessions create and save carts that are completely separate from those your customers see. For added security, items yet to be purchased are saved in these carts, but not any cardholder information that may have been entered.

For example, if you added a registration to a member's cart but do not submit it, then she will *not* see the registration in her cart the next time she signs in; however, when you return to registering her on her behalf, you see her cart restored to the state it was in

when you left it. Once you *complete* a purchase on her behalf, both she and you can see the order through her account page.

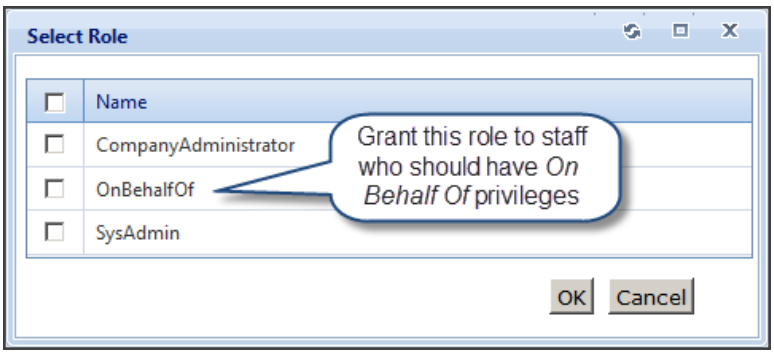
> **Note:** You can use the audit trails to track which logged-in user performed each action that affected an On Behalf Of transaction.

Who can act On Behalf Of?

To protect the security of contact data, users must be added to the security role SysAdmin or OnBehalfOf to perform actions on behalf of another contact (individual or organization). It is easy to give a staff member On Behalf Of privileges.

1. Go to **Settings > Security administration > Users**.
2. Find and select a user, and in **User Information** click **add role**.

   Click to view image




Changing and ending On Behalf Of

When you act on behalf of someone else, all of your commerce-related actions pertain to the target contact until you end the session in one of these ways:

- Select a new target contact: click **(change)** next to the target contact.
- Clear the selected contact: click the down arrow next to the target contact and select **Clear**.
- Close the browser.
- Sign out of iMIS.

Whose contact information do content items show?

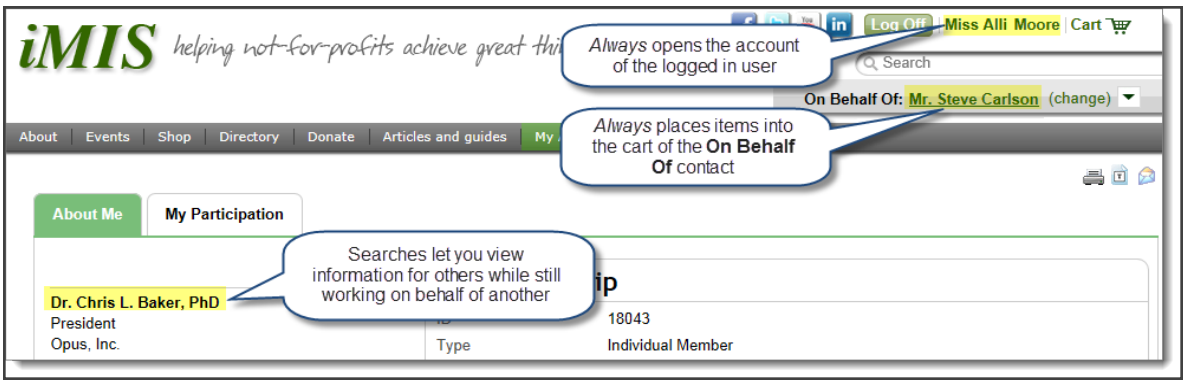
Acting on behalf of another contact controls the current cart, but it does not keep you from getting to information for other contacts. An content item determines whose cart and

information to show and update based on this logic:

- If the link's URL specifies an ID (such as for search results), it shows information for that contact.
- If not, it shows information for your **On Behalf Of** contact, if appropriate. For example, the Query Menu content item runs queries regardless of the target contact.
- Without **On Behalf Of**, it shows information for you, the logged-in user.
- If no one is signed in, it shows limited information.

  For example, you could be working on behalf of one contact when you need to use the **Directory** to look up an address for another. You can drill down on information from those searches with no effect on your on-behalf-of contact: the content items pass the queried contact's ID on the URL to show you the information you need. Only when you take actions that add items to the cart is **On Behalf Of** enforced.

  Click to view image




**Note:** What never changes is the contact name link in the top navigation: it always shows information for you (the logged-in user).

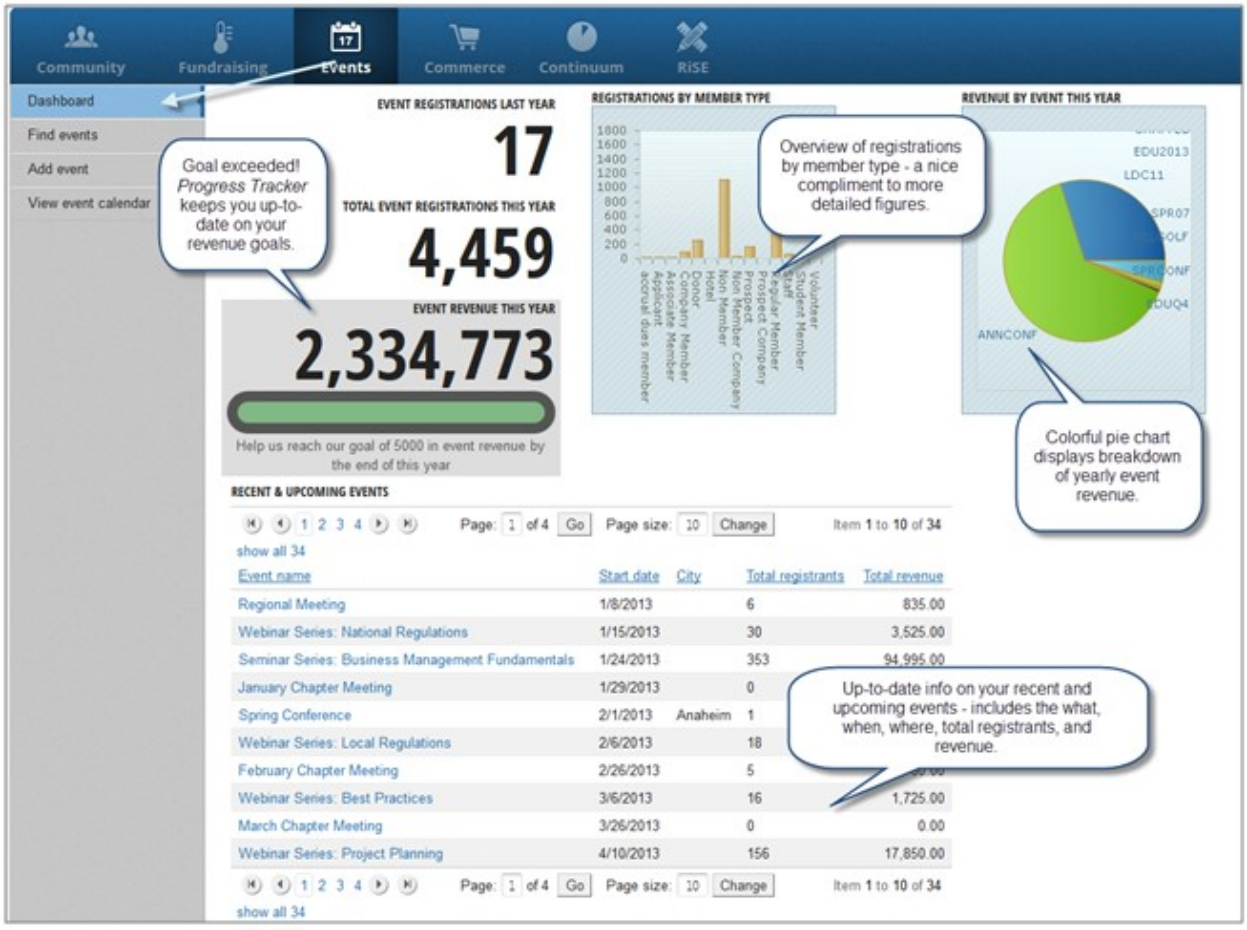
## Events dashboard in the Staff site

From your Staff site, **Events** offers a quick-view **Dashboard** of your organization's event progress and figures:

- Event registrations last year
- Registrations by member type
- Revenue by event this year
- Total event registrations this year

- Event revenue this year
- Recent & upcoming events

Click to view image




## Event-Specific Console

Each event displays an event-specific console page that provides a detailed display of information about the event such as its description and up-to-date registration figures.

## Event Content Items

Specific event content items are designed to present your events with self-service registration in the public facing iMIS website.

## Creating an Event

From a large annual conference with numerous program items to a weekly committee meeting, iMIS is built for you to create events smoothly and efficiently.

## Searching for Events

Searching events is made easy through the use of the event search, list, and calendar. You can search for events by month, event name, city, state, or province, or topic in the event search. The event list displays an overview of all the events that are available for registration. The event calendar displays all available events in a calendar format.

## Registering for Events

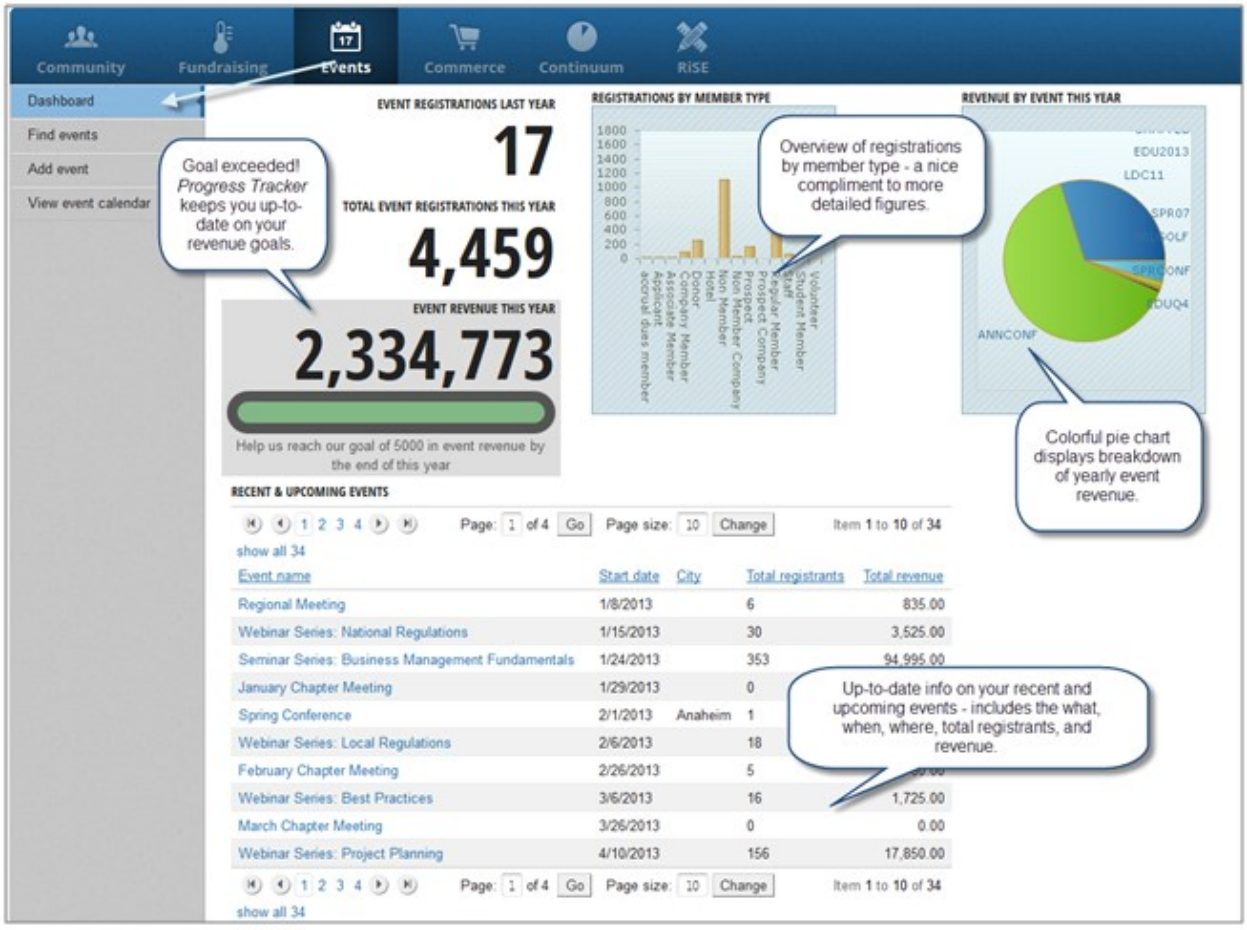
In staff and member sites, you can register yourself, another person using the On Behalf Of feature, or others from your company according to how the meeting is set up. These steps describe how to register people from your same company if the event is configured to do so.

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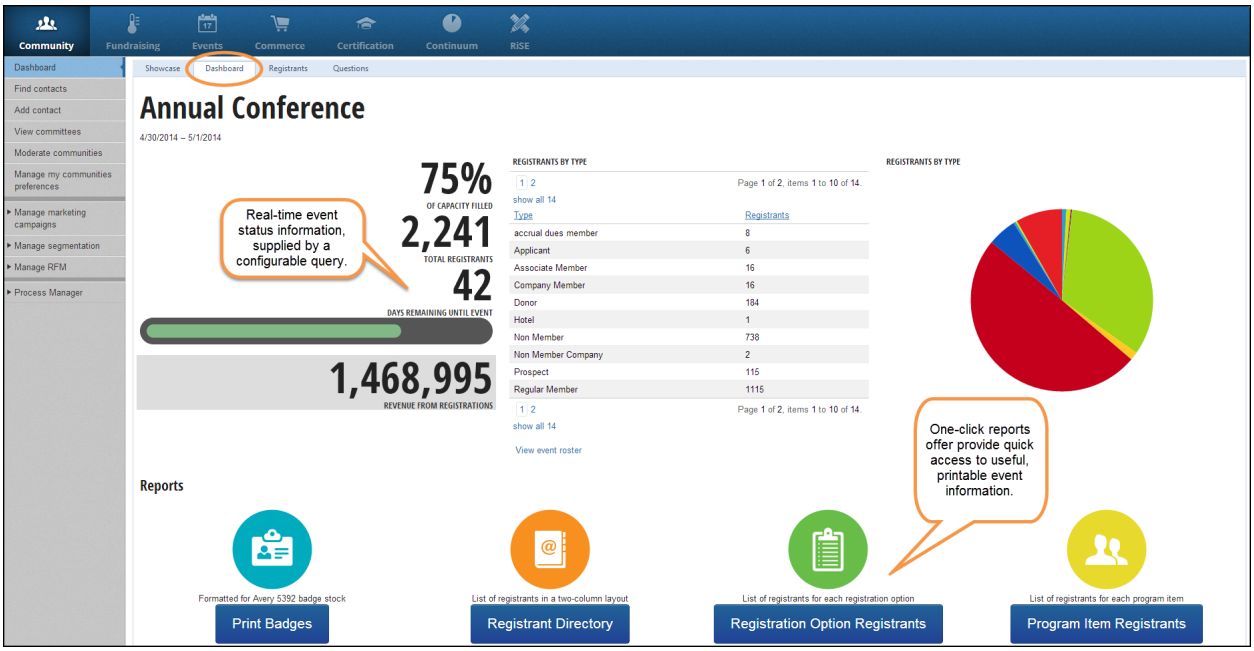
## Event-specific console

Every event in iMIS has its own unique console. From a single location, staff event managers are able to see at-a-glance statistical information, run reports and print badges, view registrants, and view and edit event and program item details.

### Dashboard

The event-specific **Dashboard** tab is the landing page for Events. It provides a quick view of important, up-to-date registration information and statistics for a specific event. The dashboard information is configurable.

Click to view image




#### Reports

The **Reports** area displays a graphic panel with links to **Print Badges**, **Registrant Directory**, **Registration Option Registrants**, and **Program Item Registrants**:

- **Print Badges** displays a report containing registrant badge information. The badges display the full name, informal name, title, organization, city, state/province, and country of each registrant. This report is configured to print badges on *Avery 5392* badge stock.
  To configure the **Print Badges** report results, you can adjust the following parameters:
  - **Event Code**: The unique event identification code determined during your initial event set up.
  - **First Name** (optional): Enter a first name to display badges only for people with that name.
  - **Last Name** (optional): Enter a last name to display badges only for people with that name.
  - **Include Guests**: Select **Yes** or **No** from the drop-down list.

    If you select **Yes**, guests are grouped together with the primary registrant and their badge will display only their name and a note that they are a guest of their primary registrant.
  - **PDF** and **Excel** icons: Select an icon to export the report as the designated file type.

    > **Note:** You must export a report as a **PDF** in order to preserve the *Avery 5392* formatting for printing.

- **Registrant Directory** displays a 2-column report that lists all event registrants and their information.
  To configure the **Registration Directory** report results, you can adjust the following parameters:
  - **Report Title** (optional): Enter a descriptive title for your report.
  - **Include Guests**: Select **Yes** or **No** from the drop-down list.

    If you select **Yes**, guests are grouped together with the primary registrant and their badge will display only their name and a note that they are a guest of their primary registrant.
  - **Include Cancelled**: Select **Yes** or **No** from the dropdown list.

If you select **Yes**, cancelled registrations are included in the report and are distinguished by an asterisk (*).

- **Event Code**: The unique event identification code determined during your initial event set up.
- **PDF** and **Excel** icons: Select an icon to export the report as the designated file type.

> **Note:** You must export a report as a **PDF** in order to preserve formatting for printing.

- **Registration Option Registrants** displays a list of registrants and the organizations they belong to for each registration option.
  To configure the **Registration Option Registrants** report results, you can adjust the following parameters:
  - **Report Title** (optional): Enter a descriptive title for your report.
  - **Include Cancelled**: Select **Yes** or **No** from the drop-down list.

    If you select **Yes**, cancelled registrations are included in the report and are distinguished by an asterisk (*).
  - **Show Registrants for**:
  - **Event Code**: The unique event identification code determined during your initial event set up.
  - **Include Waitlist**: Select **Yes** or **No** from the dropdown list.

    If you select **Yes**, guests are grouped together with the primary registrant and their badge will display only their name and a note that they are a guest of their primary registrant.
  - **PDF** and **Excel** icons: Select an icon to export the report as the designated file type.

> **Note:** You must export a report as a **PDF** in order to preserve formatting for printing.

- **Program Item Registrants** displays a list of registrants and the organizations they belong to for each program item.

  To configure the **Program Item Registrants** report results, you can adjust the following parameters:

  - **Report Title** (optional): Enter a descriptive title for your report.
  - **Include Cancelled**: Select **Yes** or **No** from the drop-down list.

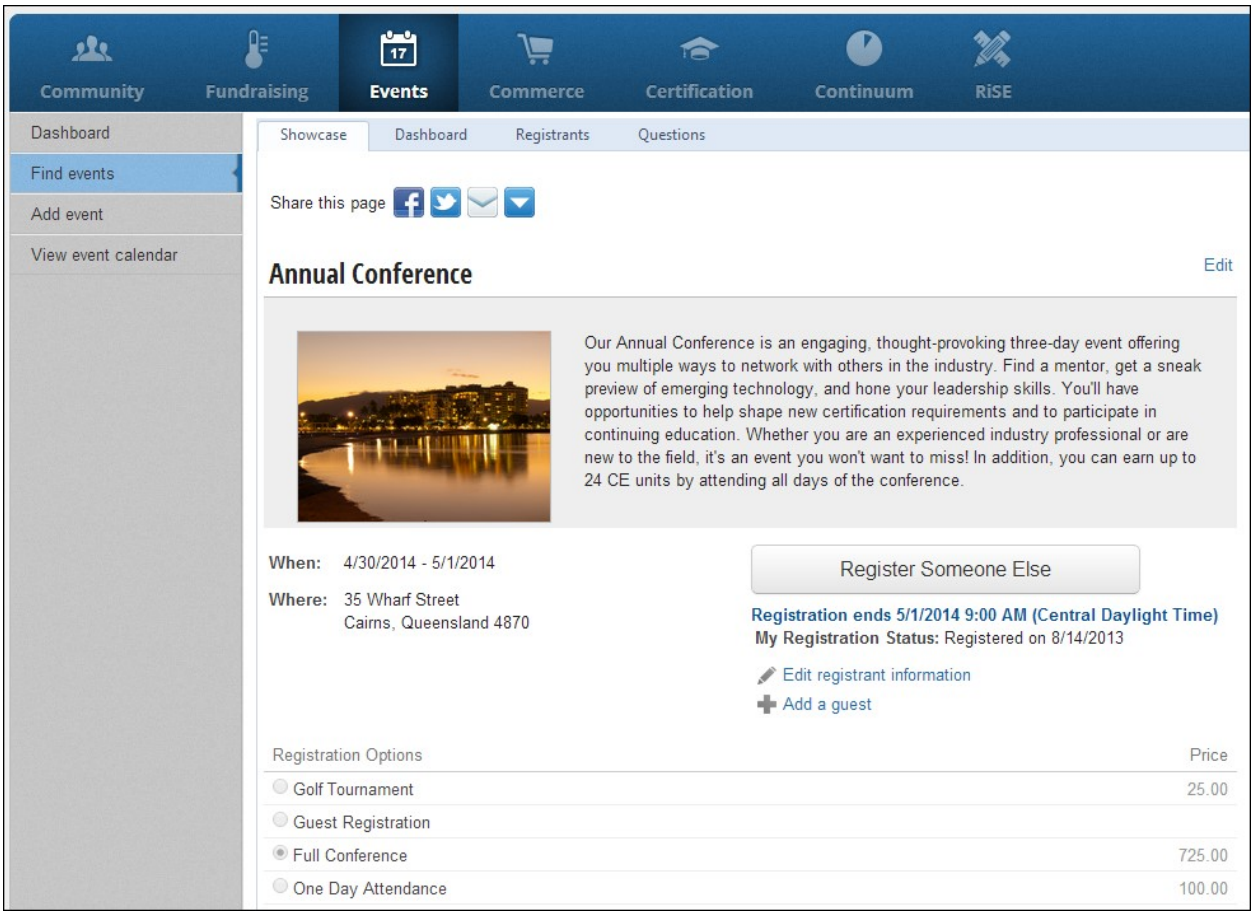
    If you select **Yes**, cancelled registrations are included in the report and are distinguished by an asterisk (*).
  - **Show Registrants for**:
  - **Event Code**: The unique event identification code determined during your initial event set up.
  - **Include Waitlist**: Select **Yes** or **No** from the dropdown list.

    If you select **Yes**, guests are grouped together with the primary registrant and their badge will display only their name and a note that they are a guest of their primary registrant.
  - **PDF** and **Excel** icons: Select an icon to export the report as the designated file type.

    > **Note:** You must export a report as a **PDF** in order to preserve formatting for printing.

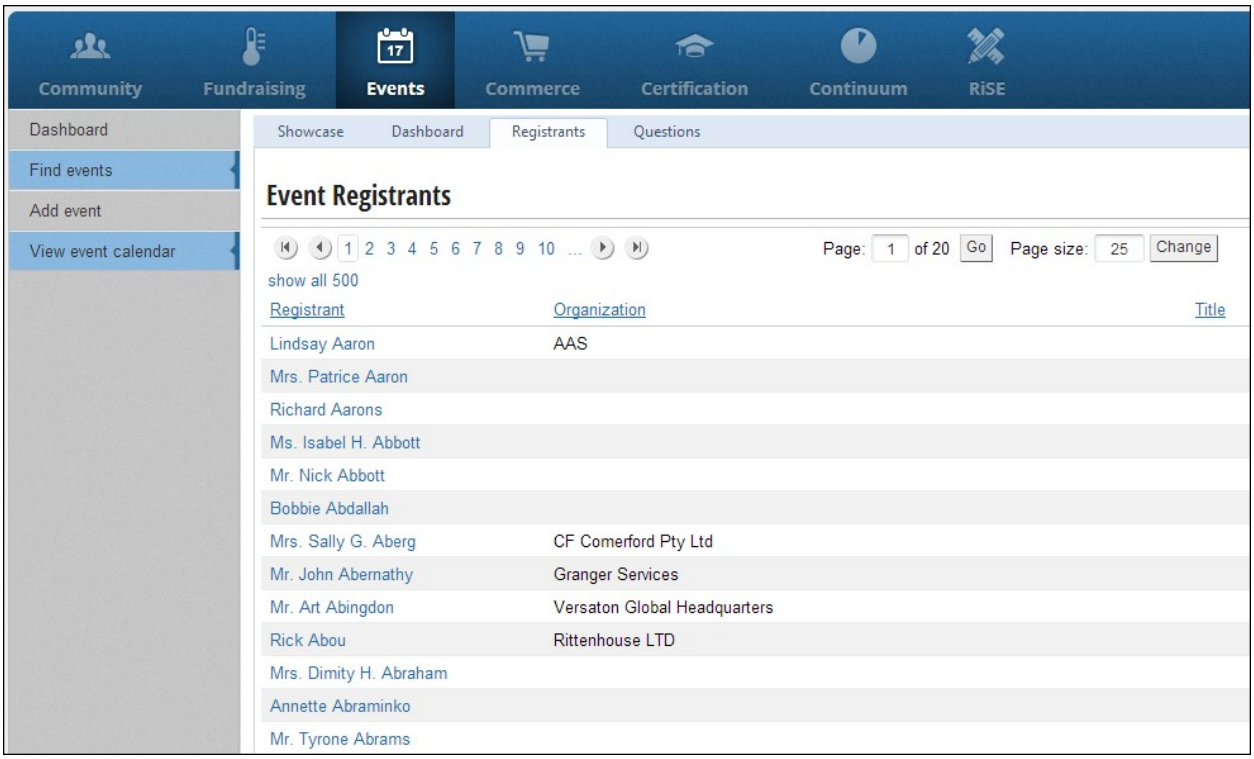
**Showcase**

The event-specific **Showcase** displays the same information your event registrants see. Event details, functions, and options are configurable from this section. For more information about using the showcase tab, please see Creating an event and Registering for events.



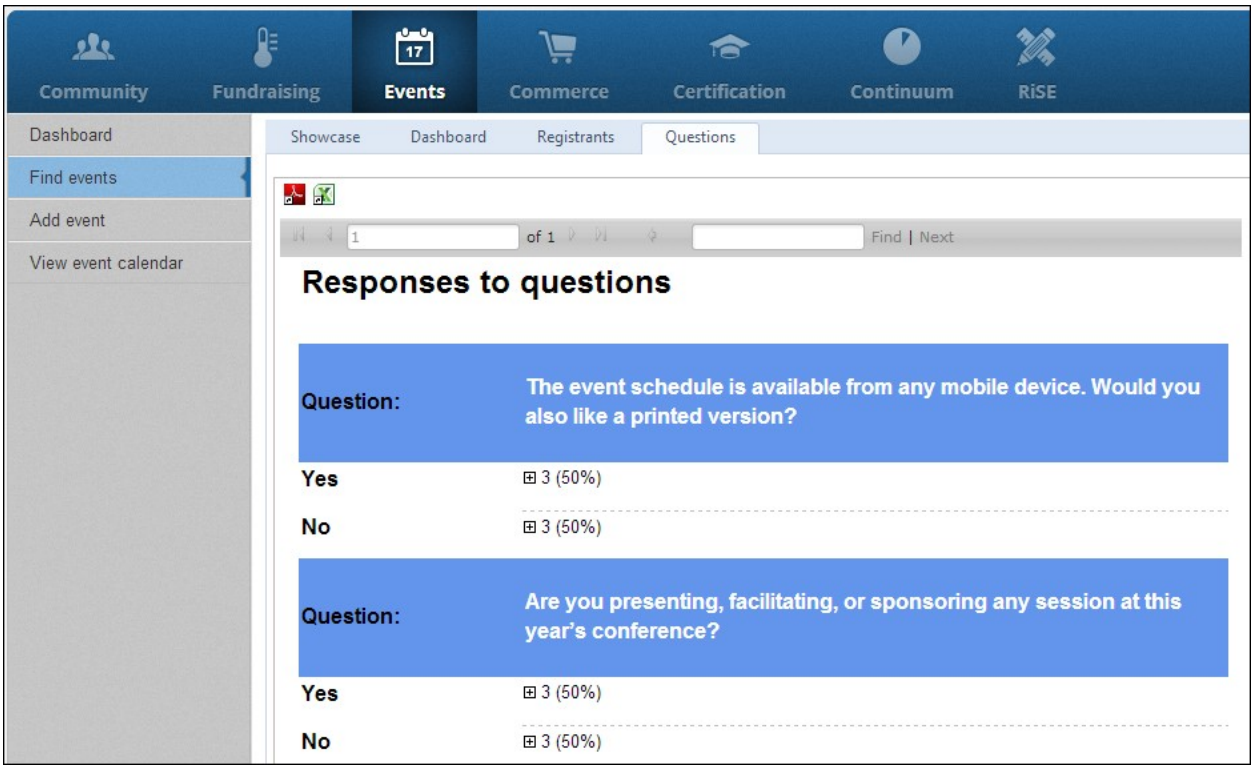

## Registrants

The **Registrants** tab presents a listing of all the registrants for a selected event.




## Questions

The **Questions** tab displays registrant responses to event-level questions. Answers are displayed in a percentage format for yes/no questions, in a graph format for multiple-choice questions, and as a collapsible list for open-ended response questions.




## Creating an event

### Creating an event

1. In the Staff site, go to **Events > Add event**.
2. Navigate to the (**Info**) tab.

> **Note:** The time displayed for the date and time fields is determined by the time zone of your database server.

3. General Information Section:

- Enter the **Event Code**.

> **Note: Code** must be alphanumeric, contain no spaces, and be unique among all events.

- Enter the **Event Name**.
- Enter a **Description**.
- Specify the inclusive dates and times.
- Enter a **Capacity** if you want iMIS to limit the number of registrations to accept.

- To display an image with the event listing, choose an **Image** from the list or browse to **Upload New Image**.
- Specify a date and time range for when events **Show in search** display to the public in search results and the event calendar.
- If these fields are left blank, the event will display on the calendar for non-staff users to see.
- If the date range includes the current date, the event will display on the calendar for non-staff users to see.
- If the date range does not include the current date, only staff users will see the event on the calendar.
- Select a **Default program sort** to set the initial sort order of the event's program items. You can choose **Day**, **Category**, **Track**, or **View all**. Website users can change the program items' sort order when viewing the event.

4. Registration Section:

- (optional) In the **Registration opens** and **Registration closes fields**, enter the date and time range when you want to allow public users to register for events.

> **Note:** Staff users and system administrators can always register themselves and other contacts for the event, regardless of the date range entered in the **Registration opens** and **Registration closes** fields.

- (optional) In the **Registration closed message** field, enter a message to display on the event Showcase page after the registration has closed to public users. The default message is **Registration is closed**.
- (optional) Enable the **Register Someone Else** button to allow users to register others by selecting the **Allow registering others** checkbox. When **Registering Someone Else**, Staff and authorized members are able to search for an existing contact to register or add a new contact all from a single screen.

> **Note:** The ability to add a new contact when **Registering Someone Else** is not configurable. If you select **Allow registering others**, staff and authorized members can always add a new contact when **Registering Someone Else**.

> **Note:** The user who pays for the registrant's event fees is listed as the **Bill To** party on those registrations. All accounting and invoice transactions are tracked under the **Bill To** ID.

- (optional) If you have an event for which this is appropriate, enable **Allow adding guests**. When enabled, the registrant can add a new contact and register that person as a guest for an event via the **Add a Guest** link. When you register someone as a guest, their registration is dependent upon the registration of the host. The host can be the person you are working **on behalf of**, an individual registered using **Register Someone Else**, or yourself.
- (optional) To allow users to change their program items after checkout, enable **Allow itinerary changes after checkout**. If there is a cutoff date for changes, enable **Cutoff for itinerary changes**.

> **Note:** If **Allow itinerary changes after checkout** is enabled for the event and the **Cutoff date for itinerary changes** has not passed, public users can still change program item registrations even after the event registration has closed, with the following exceptions:
> -- Fundraising program items
> -- Program items with a promotion discount applied
> -- VAT or Canadian taxation methods
> -- Canceled registrations

5. Additional Information Section:
- To include Additional Information, enter HTML text in the editing panel. There is no limit on size.
6. Click **Save**.

> **Note:** When an event date is changed, each of the associated program items will need to be reconfigured as well.

### Defining event pricing and registration options

You must define at least one registration option or program item in order for users to be able to register for your event. For example, you might choose to create several

registrations to include your members, students, vendors, staff members, and presenters. Each registration option allows you to set a price and registration cut-off date that is unique from other registration options.

> **Note:** In the Advanced Accounting Console, if the **Registrant Class Determination** is enabled for **Member type** then all of the pricing options can only be configured through the Advanced Accounting Console. Edit an event by selecting **More > Web Options** and enable **Member / Non-Member** for the **Registrant Class Determination** to configure pricing options through the web.

1. Navigate to the (**Pricing**) tab.
2. Enter the **Early Cut-Off** date and **Regular Cut-Off** date for the registration prices, if applicable.

   > **Note:** The dates entered are inclusive. As an example, **Early Cut-Off** date is the last day for the early discount price.

3. If you have enabled Canadian taxation or VAT taxation in iMIS, you can specify the taxation rules to apply. The taxation method is set up for your default organization in the Advanced Accounting Console (at **File > System Setup > Organization Names**).

   Click for details

   - If your organization uses the Canadian taxation method with either GST or GSTINC as the taxation authority, enter the **Tax Authority**.
   - Organizations using the GST tax authority can also choose to **Tax by Address**.
   - If your organization uses the VAT taxation method, specify the **VAT Rule**.

   See Taxation for more information on setting up Canadian and European taxation methods in iMIS.

4. In the **Registration Options** section, click **Add**.
5. On the (**Info**) tab, add a **Registration Option Code** and a **Registration Option Name**.

> **Note: Code** must be alphanumeric, contain no spaces, and be unique among all registration options and program items in the event.

> **Note:** Once you have saved your Function Code, you are unable to change it.

6. Enter any other optional fields that apply to the registration option.
7. Open the Registration Options (**Pricing**) tab and set the prices for the registration option.
8. You can set both **Default** and **Members** price fields, so that your members (those with *IsMember* status) can enjoy the benefit of a reduced fee. The price you enter auto-fills the **Members** price; leave it (to prevent any discounting) or override the price by lowering the amount. When your members view an event, they will see only the appropriate fee.
9. If you entered an **Early Cut-Off** date for your event, the **Early pricing** fields will be available. If you entered a **Regular Cut-Off** date, **Late pricing** fields will be available.
10. To make the registration option complimentary, select **Comp** for **Default** and/or **Members** prices.
11. Select the (**Accounting**) tab to review the settings and make any required changes for the item.
    Click for details
    - If you have enabled Canadian taxation or VAT taxation in iMIS, you can select the **Tax Category**. The **Tax Category** specifies the taxation rules to be applied.The options available depend on the taxation method set up for your default organization in the Advanced Accounting Console (at **File > System Setup > Organization Names**).
    - If your organization uses the Canadian taxation method with GST as the taxation authority, select **GST/HST** or **PST**. If the Registration Option is non-taxable, do not select an option. If the Registration Option is taxable, select one or both options.
    - If your organization uses the Canadian taxation method with GSTINC as the taxation authority (generally countries in the Asia-Pacific region), select **Taxable** or **Non-Taxable**.
    - If your organization uses the VAT taxation method, select **Taxable** or **Non-Taxable**. If the Registration Option is **Taxable**, enter the **VAT Tax Code** you want to apply.
    See International Taxation for more information on setting up Canadian and European (VAT) taxation methods in iMIS.

- See Taxation for more information on setting up Canadian and European (VAT) taxation methods in iMIS.
- From the **Income** drop-down, choose the GL account to assign to the registration option. The **Default** option will use the system default account for events.
- (Optional) Enter a **Fair Market Value**. Currently, this value is not included in any of the receipting logic.For event registrations, the tax-deductible amount is often calculated as the amount of the registration fee minus the **Fair market value** of any benefits that the registrant receives for their registration.

> **Note:** The **Fair Market Value** option is only available if you have a FUNDRAISING iMIS license.

12. On the (**Questions**) tab, click **Add new** to include Registration Option-specific questions. If you would like to adjust an existing question, select a row and click **Edit selected**.

> **Note:** If you would like to hide a question from registrants, select the **Hidden** check-box in the Questions configuration area.

> **Note:** If you would like change the presentation order of your questions, click the up and down arrows on the questions tab.

a. Type in your question.
b. Select the checkbox if you would like to indicate that an answer to the question is required.
c. Select the answer type from the drop down.
There are six different answer types available:

- **Numeric integer** – The registrant can enter only whole numbers (positive or negative).
- **Numeric decimal** – Registrant can enter any number with up to 4 decimal places. If more are entered, they will be truncated to the fourth place (not rounded).
- **Multi-line text** – The registrant can enter lengthy answers in a multiple-line text box.
- **Single-line Text** – The registrant can enter an answer of only one line in a text box.
- **Yes/No** – The registrant can only choose "Yes" or "No".
- **Dropdown list** – The registrant can select one of several listed options.

> **Note:** Event organizers configure drop-down lists either explicitly, defining each option manually, or by query, defining a static group of list options for an individual question through a pre-arranged query.

> **Note:** The **Display Value** field determines the text seen by registrants. The **Data Value** field is only used in the database. For example, if you chose to display long sentence answers to registrants, the Data Value field would enable you to record abbreviated versions of those options in the database.

d. Click **Save**.

13. Repeat steps **a-d** to add additional questions to a single Registration Option.

> **Note:** The modifications made on the (**Questions**) tab determine the content viewed by registrants after they have selected a Registration Option.

> **Note:** In order for responses to each group of questions to be saved, registrants must select **Save Response** before checking out.

> **Note:** If a *SysAdmin* makes changes to questions while a registrant is completing a question, it is possible that either the question or the registrant response will be lost. Ensure that your changes and updates are conducted at a time that few people will be registering.

14. Click **Save & Close**.

If needed, you can define additional registration options so that registrants can choose between different options.

**Setting up questions for events**

1. Navigate to the **(Questions)** tab.
2. Select **Add new** to add new questions. Select a row and click **Edit selected** to edit an existing question.
3. Type in your question.

4. Select the checkbox if you would like to indicate that an answer to the question is required.
5. If you would like to hide a question from registrants, select the **Hidden** checkbox in the Questions configuration area.
6. Select the answer type from the drop down.
   There are six different answer types available:

- **Yes/No** – The registrant may only choose "Yes" or "No".
- **Numeric integer** – The registrant may enter only whole numbers (positive or negative).
- **Numeric decimal** – Registrant may enter any number with up to 4 decimal places. If more are entered, they will be truncated to the fourth place (not rounded).
- **Single-line Text** – The registrant may enter an answer of only one line in a text box.
- **Multi-line Text** – The registrant may enter lengthy answers in a multiple-line text box.
- **Dropdown list** – The registrant may select one of several listed options.

> **Note:** The answer type cannot be edited after saving a question.

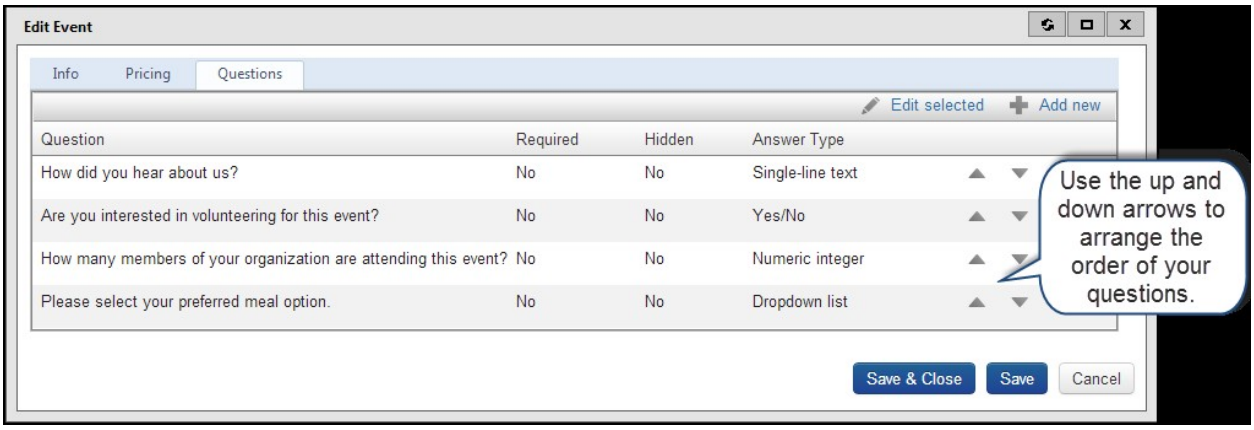
> **Note:** Event organizers configure drop-down lists either explicitly, defining each option manually, or by query, defining a static group of list options for an individual question through a pre-arranged query.

> **Note:** The **Display Value** field determines the text seen by registrants. The **Data Value** field is only used in the database. For example, if you chose to display long sentence answers to registrants, the Data Value field would enable you to record abbreviated versions of those options in the database.

7. Click **Save**.
8. Repeat steps **2-3** to add additional questions.

> **Note:** If you would like to change the presentation order of your questions, click the up and down arrows on the **(Questions)** tab.

9. When you have finished adding your questions, click **Save & Close**.
   Click to view image




**Note:** The modifications made on the **(Questions)** tab determine the content viewed by registrants after they have elected to "**Register Myself**".

**Note:** If an event organizer with administrative privileges makes changes to forms while a registrant is completing a form, it is possible that either the question or the registrant response will be lost. Make sure to conduct your changes and updates at a time that few people will be registering.

### Adding program items to an event

1. Navigate to Event **Showcase**.
2. In the **Program** area, click **Add**.
3. Enter a **Program Item Code** and **Program Item Name** for the program item.

**Note: Code** must be alphanumeric, contain no spaces, and be unique among all registration options and program items in the event.

4. Enter values for **Capacity**, **Maximum Registrations per Registrant**, **Category**, or **Track** if needed; these fields are optional:
   Click for details

- **Capacity** – If you set a maximum capacity, once that limit is reached, iMIS disables relevant registration buttons and links and prompts registrants to review any registrations pending in the cart, if affected. Entering no value allows unlimited registrations.

- **Maximum Registrations per Registrant** – If the **Maximum Registrations per Registrant** attribute for this event was set to greater than **1**, you can add a number of guests to your registration. For example, if the attribute was set to **4**, you can specify up to a maximum of four registrants as part of your registration (yourself and three guests).
- **Category** – Designates one or more terms, separated by semicolons, as being relevant categories for this function. For example, if the function targets both intermediate and advanced practitioners, you might enter **Intermediate;Advanced**.
- **Track** – Designates one or more terms, separated by semicolons, as being relevant tracks for this function. For example, if the function serves both managers and technologists, you might enter **Management;Technical**.

5. If there are multiple program items with the same start date and time, you can enter a **Sort Sequence** to determine what order they appear in the program. Program items with the same start date and time will be sorted by this value, lowest to highest (items with a value of **0** will be the first in the order).
6. To display an image with the program item listing, choose an **Image** from the list or browse to **Upload New Image**.
7. To include **Additional Information**, enter HTML text in the editing panel; there is no limit on size.
8. Open the (**Pricing**) tab and set the prices for the program item.
9. You can set both **Default** and **Members** price fields, so that your members (those with *IsMember* status) can enjoy the benefit of a reduced fee. Note that the price you enter auto-fills the **Members** price; leave it (to prevent any discounting) or override the price: lower the amount, or select **Comp** for those members to not be charged a fee. When your members view an event, they will see only the appropriate fee.
10. If you entered an **Early Cut-Off** date for your event, the **Early** pricing fields will be available. If you entered a **Regular Cut-Off** date, **Late** pricing fields will be available.
11. To make the program item complimentary (or to include it as part of the event registration), select **Comp** for **Default** and/or **Members** prices.
12. Select the (**Accounting**) tab to review the settings and make any required changes for the item.

    Click for details

- If you have enabled Canadian taxation or VAT taxation in iMIS, you can select the **Tax Category**. The **Tax Category** specifies the taxation rules to be applied. The options available depend on the taxation method set up for your default organization in the Advanced Accounting Console (at **File > System Setup > Organization Names**).
  - If your organization uses the Canadian taxation method with GST as the taxation authority, select **GST/HST** or **PST**. If the program item is non-taxable, do not select an option. If the program item is taxable, select one or both options.
  - If your organization uses the Canadian taxation method with GSTINC as the taxation authority (generally countries in the Asia-Pacific region), select **Taxable** or **Non-Taxable**.
  - If your organization uses the VAT taxation method, select **Taxable** or **Non-Taxable**. If the program item is **Taxable**, enter the **VAT Tax Code** you want to apply.
    See Taxation for more information on setting up Canadian and European (VAT) taxation methods in iMIS.
- From the **Income** drop-down choose the GL account to assign to the program item. The **Default** option will use the system default account for events. If needed, you can also choose a **Deferred Income** account to assign to the program item.

  **Note:** The **Deferred Income** option is available with a DEFINC iMIS license.
- (Optional) Enter a **Fair Market Value**. This amount is the value that a donor receives for making a Gift and and allows the portion of their Gift that is eligible for tax reporting to be calculated correctly.

  **Note:** The **Fair Market Value** option is only available if you have a FUNDRAISING iMIS license.

13. Open the (**Questions**) tab.
14. Select **Add new** to include Registration Option-specific questions. If you would like to adjust an existing question, select a row and click **Edit selected**.

    **Note:** If you would like to hide a question from registrants, select the **Hidden** checkbox in the Questions configuration area.

> **Note:** If you would like to change the presentation order of your questions, click the up and down arrows on the (**Questions**) tab.

15. Type in your question

a. Select the checkbox if you would like to indicate that an answer to the question is required.

b. Select the answer type from the drop down.
There are six different answer types available:

- **Numeric integer** – The registrant may enter only whole numbers (positive or negative).
- **Numeric decimal** – Registrant may enter any number with up to 4 decimal places. If more are entered, they will be truncated to the fourth place (not rounded).
- **Multi-line Text** – The registrant may enter lengthy answers in a multiple-line text box.
- **Single-line Text** – The registrant may enter an answer of only one line in a text box.
- **Yes/No** – The registrant may only choose "Yes" or "No".
- **Dropdown list** – The registrant may select one of several listed options.

> **Note:** Event organizers configure drop-down lists either explicitly, defining each option manually, or by query, defining a static group of list options for an individual question through a pre-arranged query.

> **Note:** The **Display Value** field determines the text seen by registrants. The **Data Value** field is only used in the database. For example, if you chose to display long sentence answers to registrants, the Data Value field would enable you to record abbreviated versions of those options in the database.

c. Click **Save**.

d. Repeat steps **a-d** to add additional questions to a single program item.

> **Note:** The modifications made on the (**Questions**) tab determine the content viewed by registrants after they have added a program item to their itinerary.

> **Note:** In order for responses to each group of questions to be saved, registrants must select **Save Response** before checking out.

> **Note:** If a **SysAdmin** makes changes to forms while a registrant is completing a form, it is possible that either the question or the registrant response will be lost. Make your changes and updates at a time that few people will be registering.

16. Click **Save & Close**.

Additional options for event definition may be available in the Advanced Accounting Console. Events and program items created on the web using content items can be updated in the Advanced Accounting Console (at **Events > Define an event**), if needed.

> **Note:** You must populate the **Default Terms Code** field in **AR/Cash > Set up module > Aging** with a value. If not, Event program items and registration options do not appear when users register on the web. You may also see the following error in the Error log: "**COrder.TermsCode: The supplied value '0' is not defined in the Financial Terms reference table.**"

> **Note:** When an event date is changed, each of the associated program items will need to be reconfigured as well.

> **Note:** If the option to **Show this function on the Web** has been disabled, the program item will not be visible to members or to Staff users on the Web. This option can be enabled through the Advanced Accounting Console.

Defining how program items display for a specific registration option

As an event planner, you can easily customize how program items should display for each registration option. You can define the display options from the context of a specific registration option or a specific program item.

1. Edit an event, and on the (**Pricing** tab) open a registration option.
2. Select the (**Program Options**) tab.

3. For each program item, choose how the item should display when a registrant chooses this registration option:
- **Display and allow user to add/remove** – The program item is displayed for this registration option, and the registrant can register for it. This option is available only if the program item allows registration.
- **Display and do not allow user to add/remove** – The program item is displayed for this registration option, but the registrant cannot register for it.
- **Do not display** – The program item is not displayed for this registration option.
4. When you have chosen display options for each program item, click **Save & Close**.

Defining how a specific program item displays for each registration option

As an event planner, you can easily customize how program items should display for each registration option. You can define the display options from the context of a specific registration option or a specific program item.

1. Edit a Program Item and select the (**Registration Option**) tab.
2. For each registration option, choose how the current program item should display when a registrant chooses this registration option:
- **Display and allow user to add/remove** – The current program item displays the registration option, and the registrant can register for it. This option is available only if the item allows registration.
- **Display and do not allow user to add/remove** – The current program item displays for the registration option, but the registrant cannot register for it.
- **Do not display** – The program item does not display for the registration option.
3. When you have chosen display options for each registration option, click **Save & Close**.

Registering by default related registration options

As an event planner, you can easily customize whether to register by default registrants for your related Program Items and Registration Options. You can also choose how each will display for registrants:

1. Edit an event, and on the (**Pricing**) tab open a registration option.
2. Select the **(Program Options**) tab.
3. For each program item, select **Register by default**.

4. For each program item, choose how the item should display when a registrant chooses this registration option:
- **Display and allow user to add/remove** – The program item is displayed for this registration option, and the registrant can register for it. This option is available only if the program item allows registration.
- **Display and do not allow user to add/remove** – The program item is displayed for this registration option, but the registrant cannot register for it.
- **Do not display** – The program item is not displayed for this registration item.
5. When you have chosen the display options, click **Save & Close**.

> **Note:** When **Register by default** is selected and either **Display and do not allow user to add/remove** or **Do not display** are chosen, registrants will be auto-enrolled for that program item.

### Registering for events

For yourself or **On Behalf Of** another contact, you can view contacts' events and register them for events. Public and Casual users are able to register other contacts from the same company. You can also register guests for yourself or other contacts if the event permits it.

If a staff user has specified a time range that the event is open for registration, public users can only register for the event if the current date falls within the time range. Staff users and system administrators can always register themselves and other contacts for the event.

An added feature for staff users: when registering yourself or others, you can ignore warning messages and errors related to:

- Event or Program Item capacity
- Itinerary conflicts
- Editing existing registrations
- Unanswered but required survey questions

  Simply ignore these errors during registration and proceed to checkout. You can also ignore the error messages at checkout.

> **Note:** If you have opened a contact record, you can click the name of the event and proceed through the registration process to checkout.

### Registering for an event

All available events are listed on the **Event Calendar** and in the general events list (**Events > Find events**). Events listed on the **Event Calendar** are color-coded to indicate visibility and availability for registration:

- Green indicates that the event is visible to all users and open to registration.
- Yellow indicates that the event is visible to all users but not open to registration.
- Orange indicates that the event is visible only to staff users.

You can browse this list or use the **Search** box to search for a word or phrase. Registrations appear in your cart along with any other items added, such as products and donations.

> **Note:** Event registration is only available for events with an Active status.

> **Note:** If double-clicking an event in the **Event Calendar** returns the error **The resource cannot be found**, ensure that the **EventDetail** shortcut is configured correctly in **Site Builder > Manage shortcuts**.

1. Select **Events > Find events** or **Search** for the event.
2. Select the event. Navigate to the (**Showcase**) tab.
3. Click **Register Myself**.

> **Note:** If you would like to register **On Behalf Of** a contact, click the **select contact** drop-down, then search for the contact by name, company, or ID.

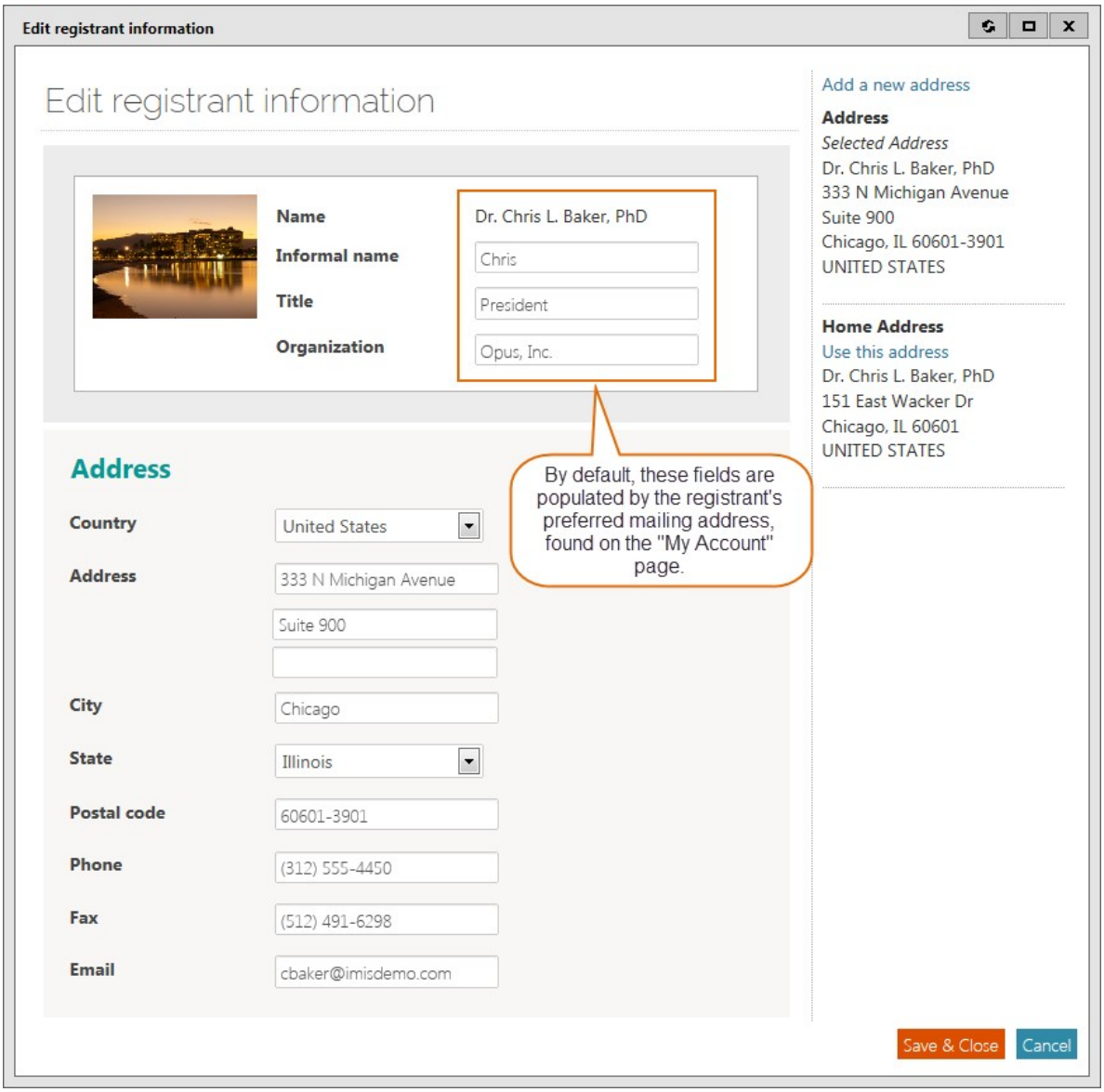
> **Note:** Staff users have the option to define a registration time range when creating events. If an event is not available for registration then the registration buttons are disabled for public users. When a registration period is defined, notification messages display The messages inform the user when a registration period begins or

ends. The time noted in these messages is populated by the time in your database server.

Click to view image




4. Answer any questions that appear below your registration status and click **Save Responses**.
5. Click **Edit registrant information** to manage the registrant details (**Informal name**, **Title**, **Organization**, and **Selected Address**). This information is used for badges and other event-related reports. Registrants can edit this information or add a new address:
   Click to view image




To override this default (*Preferred Mail*) address, select a different address or add one to the user's account.

**Note:** Any changes made to these registrant details update every instance of that address throughout iMIS. If you would like to create unique badge information for a registration, choose **Add a new address** and include your desired information.

> **Note:** If you would like to leave the **Informal name**, **Title,** or **Organization** blank, this information must be removed from the **My Account** page. When a user simply deletes this information while registering for an event, it is repopulated by the information on the **My Account** page.

6. If the event has registration options, select one for the registrant.

> **Note:** If items in the itinerary are no longer available based on the selected registration option, they are removed from the itinerary. A message is displayed indicating which items have been removed. Hidden program items are not included in the displayed message.

> **Note:** If a registration is removed from the cart, the selected program items are still in the itinerary. They can be removed on the event page.

7. Select the program items the registrant will attend.

   Click for details

a. Click on the program item group headings to expand and collapse the group sections.

b. (Optional) If the **Maximum Registrations per Registrant** attribute for this event was set to greater than **1**, you can add a number of guests to your registration. For example, if the attribute was set to **4**, you can specify up to a maximum of four (yourself and three guests) in the **Quantity** field on the program item. If you specify a number greater than the maximum value for this attribute, you will see an error message, and the quantity will not update.

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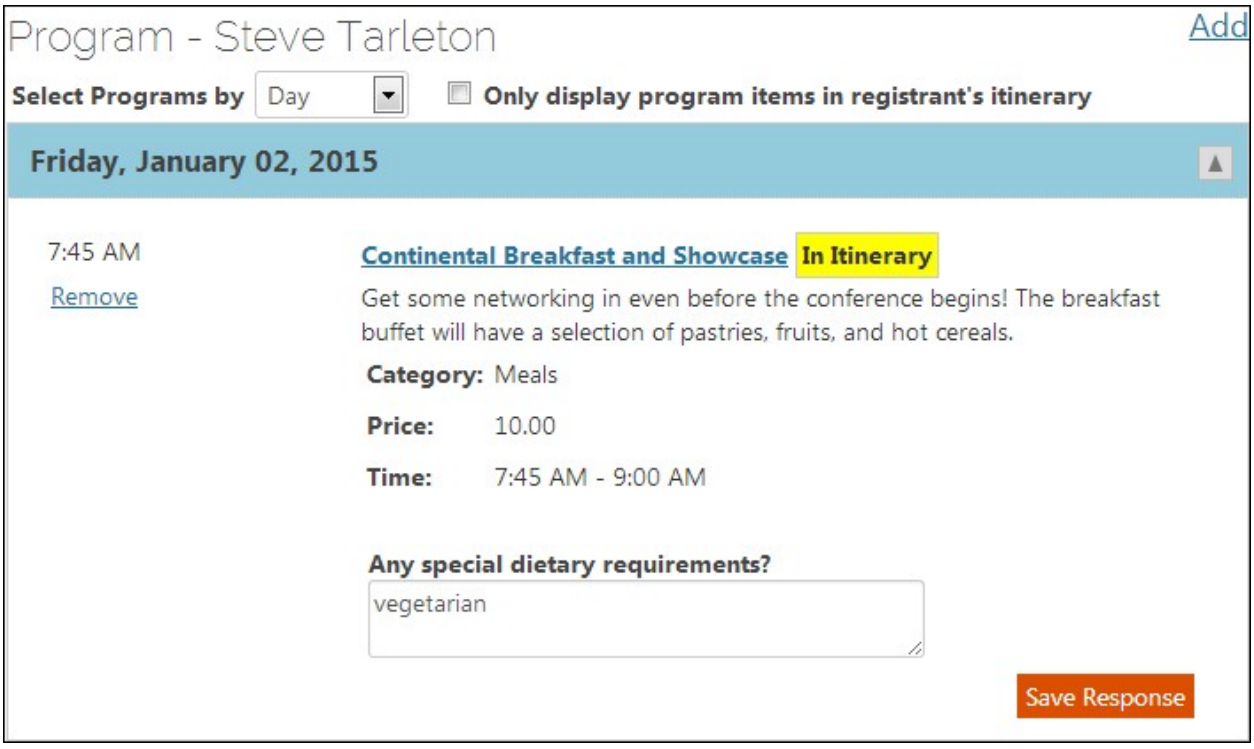

c. Click **Add**.

> **Note:** Functions set up for automatic enrollment do not have an Add link.

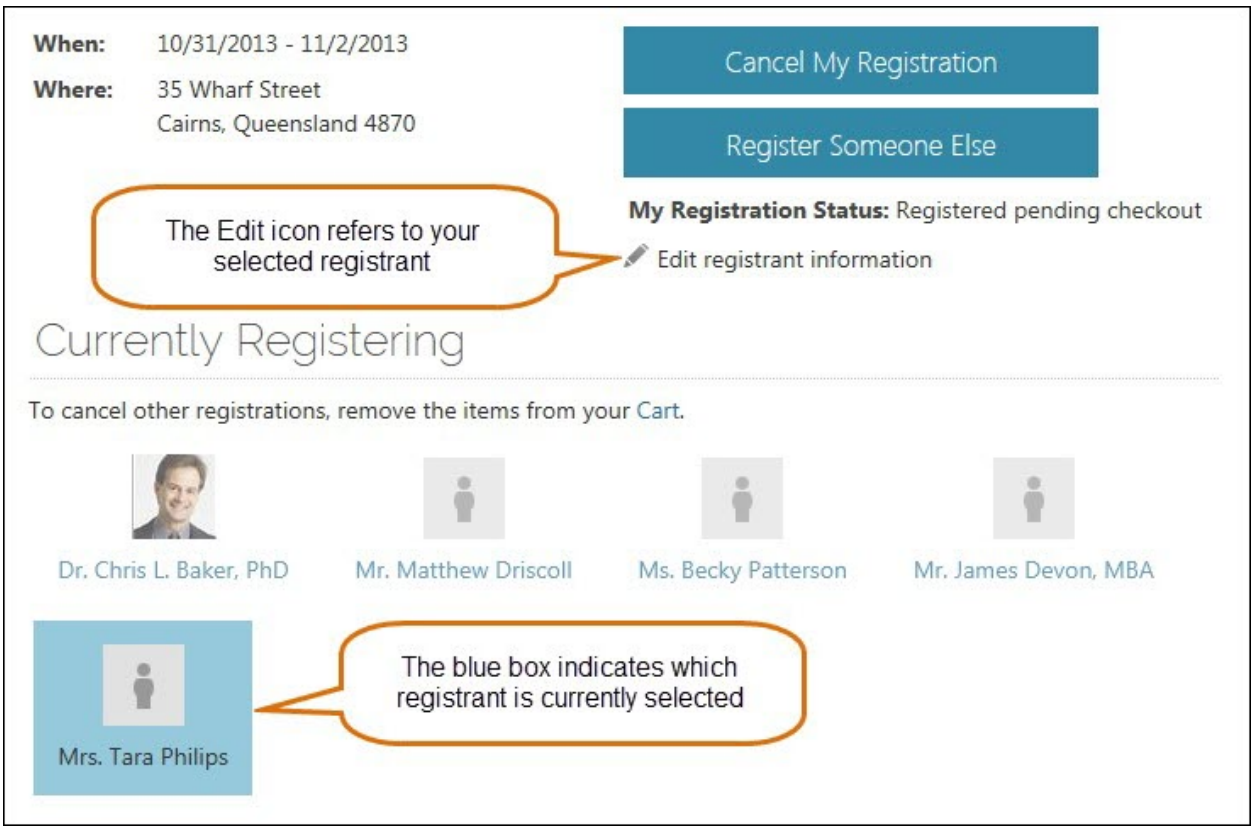
- For each program item added, the text **In Itinerary** appears next to the program item name.
- If there are any conflicting program items in the itinerary, such as two program items at the same time, you will receive a conflict message and will not be able to complete the registration process. You can easily clear up the conflict by removing one of the conflicting items

d. If the added program item has questions, complete the question form and click **Save Response**.

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> **Note:** Using the **Register Someone Else** feature will place all additional registrations in your shopping cart. If you would like to register a different user and place the registration in their shopping cart, elect to work **On Behalf Of**, and select another user.

8. The **Cart** will contain your registration checkout details.

   Click for details
   iMIS guides you through the payment process.

   Event and program item registrations appear in the shopping cart. Registrants may continue shopping or proceed to checkout. The pending registration is noted in the cart counter at the top of the page, and it shows up in the cart along with any other items selected for purchase.

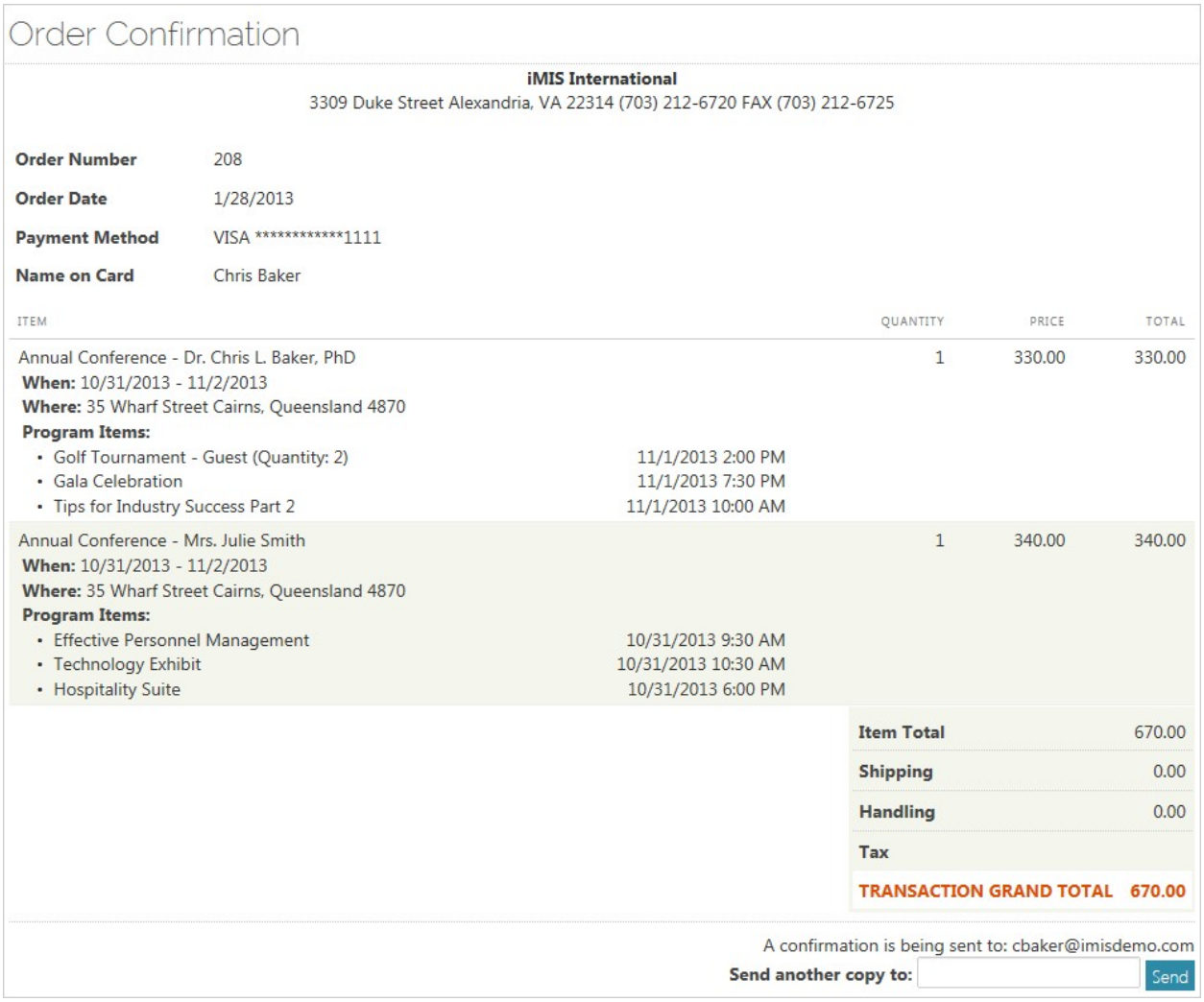
   > **Note:** If you have registered for an event that contains required questions, a reminder message displays in the shopping cart alerting you to return to the event and answer any missed required questions.

   > **Note:** If a public user adds an event to the cart on a date outside the registration period, a message notifies him or her that registration for the event is unavailable and to remove the event from the cart.

   Links in the cart let users:

- Cancel the pending registration by removing it.
- Click back to the event showcase (the page with both event details and the program items).
- After checking out from the **Cart**, an **Order Confirmation** page appears. This reflects all registration details, including additional registrants and program item details.

Click to view image



Order Confirmation

**iMIS International**
3309 Duke Street Alexandria, VA 22314 (703) 212-6720 FAX (703) 212-6725

**Order Number** 208
**Order Date** 1/28/2013
**Payment Method** VISA **********1111
**Name on Card** Chris Baker

| ITEM | | QUANTITY | PRICE | TOTAL |
|---|---|---|---|---|
| Annual Conference - Dr. Chris L. Baker, PhD<br>**When:** 10/31/2013 - 11/2/2013<br>**Where:** 35 Wharf Street Cairns, Queensland 4870<br>**Program Items:**<br>• Golf Tournament - Guest (Quantity: 2)<br>• Gala Celebration<br>• Tips for Industry Success Part 2 | <br><br><br><br>11/1/2013 2:00 PM<br>11/1/2013 7:30 PM<br>11/1/2013 10:00 AM | 1 | 330.00 | 330.00 |
| Annual Conference - Mrs. Julie Smith<br>**When:** 10/31/2013 - 11/2/2013<br>**Where:** 35 Wharf Street Cairns, Queensland 4870<br>**Program Items:**<br>• Effective Personnel Management<br>• Technology Exhibit<br>• Hospitality Suite | <br><br><br><br>10/31/2013 9:30 AM<br>10/31/2013 10:30 AM<br>10/31/2013 6:00 PM | 1 | 340.00 | 340.00 |

| | |
|---|---|
| **Item Total** | 670.00 |
| **Shipping** | 0.00 |
| **Handling** | 0.00 |
| **Tax** | |
| **TRANSACTION GRAND TOTAL** | **670.00** |

A confirmation is being sent to: cbaker@imisdemo.com
**Send another copy to:** Send

> **Note:** When you have submitted the order, iMIS sends an email confirmation. This online confirmation serves only as an acknowledgment of registration from the web. It does not update the registration record for a confirmation. The message, "This registration has been confirmed," does not appear in the **Register a customer** window.

9. After you have completed a registration for yourself or someone else, you can return to the event and view registration details. Select the desired registrant from the **Registrants** carousel. You can add and remove program items if the event permits it, or add a guest for yourself or others you have registered. You can also edit the registrant information for

anyone you have registered.

### Canceling an event registration

Users can cancel an event registration if they have not yet paid for it.

1. Select **Events > Find event** or **Search** for the event.
2. Select the desired event.
3. Click **Cancel My Registration**.
   Canceling an event registration before checkout has the effect of canceling registration for any and all of its program items as well.

> **Note:** If the ability to register someone else is enabled, you can delete others' registrations in bulk from the shopping cart.

### Changing program item registrations after registration is complete

If **Allow itinerary changes after checkout** is enabled for the event (and the **Cutoff for itinerary changes** date has not passed), users can change their program item registrations after completion of the registration process, with the following exceptions:

- Fundraising program items
- Program items with a promotion discount applied
- VAT or Canadian taxation methods
- Canceled registrations

1. In the program area of an event you have already registered for, add, remove, or update the quantity for any program item.
2. After completing all desired changes to program items, click **Proceed to Checkout** or view the **Cart**.
3. The **Cart** will contain a line for the adjusted event with the total charge or credit for all adjustments.
   iMIS guides you through the payment process.
4. An Order Confirmation page will appear, reflecting all of your registration and program item details.

### Canceling a program item registration

Users can also cancel a program item registration if they have not yet paid for it.

1. Select **Events > Find events** or **Search** for the event.
2. Select the desired event.
3. Click **Remove** for the desired program item.

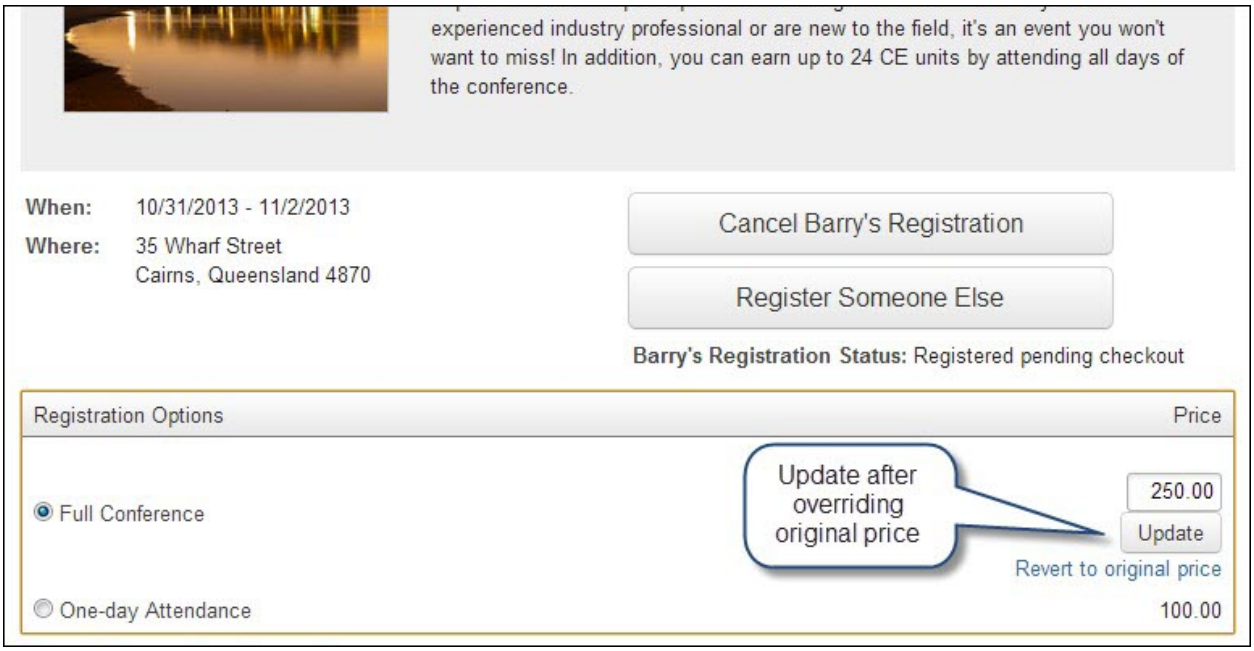
**Overriding event pricing**

If you are a staff user, you can manually override event pricing to give your organization's members (and non-members) one-time discounts on event registration options and related program items. Registrations and program items can then be added to the cart with the price override included. This can also be done working **On Behalf Of** a user.

> **Note:** The ability to override the price of an event is disabled if the system-wide taxation method is set to GSTINC.

1. Go to **Events > Find events**, and then search for the event.
2. Click the event you wish to register the user for.
3. On the resulting event display, click to register the user.
4. Select a **Registration Option**.
5. Manually edit the price in the editable **Price** field. Click **Revert to original price** if you want to return to the original price.
6. Click **Update**.
7. (optional) Repeat this step for any program items you have added to the user's itinerary, and would like to override. Click **Update** for each overridden program item.

Click to view image




8. Click **Proceed to Checkout** when you are ready to check out with the new prices.
9. Once in the cart, you will see the new price under **Items**. You can proceed through check-out as normal.

> **Note:** After a price is overridden, no further discounts or promotions may be applied.

**Register a Guest, Register Someone Else , and Register On Behalf Of: What's the difference?**

There are three different ways to register someone other than yourself using iMIS.

- **Add a guest** (when enabled) allows users to add guests to their registrations. Guest registrations are tied to the primary registration. If that registration is canceled for any reason, the guest's registration will be cancelled as well. Guest registrants are not able to use the **Add a guest** feature.
- **Register Someone Else** enables the logged in user to register a new contact or an existing contact from a list. This registration method is added to the cart of the logged-in user, but does not depend on the logged in users' registration. You are able to use the **Add a guest** feature with **Register Someone Else**.

- **On Behalf Of** enables Staff users to assume the identity of one of their contacts. When you select **Register Myself**, you are doing so as the user you have assumed. You are able to **Register Someone Else** and **Add a guest** to your **Register Someone Else** while working On Behalf Of an individual. Any registrations you create while working On Behalf Of a contact will be added to their cart.
  The **Register Someone Else** feature is a complete registration, as if registrants were registering themselves, where **Add a guest** is usually limited. For example, when a user uses **Register Someone Else** to register a new or an existing contact, they can be signed up for a full event registration including program items. When added to an event through **Add a guest**, the new or existing contact is often limited to tours, banquets and social events.

  **Note:** Guest registrants are connected to primary registrants, even if registration is canceled before checkout. A relationship is created using the iMIS relationships module for the primary and guest registrants through the **Add a guest** registration procedure.

  You can manually administer these relationships. Open the primary registrant's profile page. You can see a list of the primary registrant's relationships, or you can create new relationships. Click **Add relationship**.

  When you find the contact you want to make a guest of the primary registrant, you must set the **Role** for the guest: select **Event Guest** from the drop-down. Note that this automatically populates the primary registrant's role as **Event Guest of**.

  If you want to delete a relationship, you can define an **End** date. The relationship will be canceled after that date.

### Adding Guests to Event Registrations

If an event is configured to **Allow adding guests**, you are able to add a guest to a registration. When you register someone as a guest, their registration is dependent upon the

registration of the primary registrant. The primary registrant can be the person you are working **On Behalf Of**, an individual registered using **Register Someone Else**, or yourself. If the primary registrant cancels their registration, all of their guests' registrations are canceled as well. Your guest registrants will appear in the Showcase following the primary registrant.

You can configure the Customer Type that is assigned to your newly created guest contacts based on the membership status of the host registrant. These Customer Types are configured in the system settings in the Staff site (at **Settings > Security administration > Roles**).

Do the following to add a guest to an event registration:

1. Select an event.
2. Click **Register Myself** or **Register Someone Else**.

> **Note:** Staff users have the option to define a registration time range when creating events. If the event is not open for registration, the registration buttons are disabled for public users. When a registration period is defined, notification messages display, informing the user when the registration period begins or ends. In these notification messages, the time uses the time zone of the server that hosts your website.

3. Click **+ Add a guest**:

- If you have not previously registered a guest, a **Register Guest** window is displayed. You must create a contact account for your guest. Only **First name** and **Last name** are required, but you can include **Prefix**, **Suffix**, **Designation**, and **Informal name** among other values.
- If you have previously added a guest, a **Register Guest** window is displayed with the following options:
  - **Select an existing contact**: Select an existing contact from the drop-down. You can edit some of the contact information for the existing contact, including **Informal name**, **Organization**, and **Address**.

- **Add a new contact**: Only **First name** and **Last name** are required, but you can include **Prefix**, **Suffix**, **Designation**, and **Informal name** among other values.

4. Complete the guest registration form and click **Save & Close**.
5. Continue the registration process as you would for any other event, answering questions and selecting the appropriate registration options and program items as desired.
6. Click **Proceed to Checkout** to complete the registration process.

> **Note:** By default the primary registrant's information populates the address field for a new contact. If the primary registrant has no default address selected, new guest information will remain blank. You can change or remove your guest's address as needed.

### Registering Someone Else

When you **Register Someone Else**, Staff and authorized members are able to search for an existing contact to register or add a new contact from a single screen. Staff can also complete bulk registrations using **Register Someone Else** when they work **On Behalf Of**.

Do the following to Register Someone Else:

1. Select an event.
2. Click **Register Someone Else**.

> **Note:** When this option is disabled, users can only register for themselves.

> **Note:** Staff users have the option to define a registration time range when creating events. If an event is not available for registration then the registration buttons are disabled for public users. When a registration period is defined, notification mes-sages display The messages inform the user when a registration period begins or ends. The time noted in these messages is populated by the time in your database server.

You will have two options:

- **Select an existing contact**: Select an existing contact from the drop-down. You can edit information for the existing contact, including **Informal name**, **Organization**, and **Address**

> **Note:** This option will appear as a list of co-members from your company or organization. If you have no co-workers or do not have administrative privileges, you will only be able to add a new contact.

- **Add a new contact**: Only **First name** and **Last name** are required, but you can include **Prefix**, **Suffix**, **Designation**, and **Informal name** among other values.

  > **Note:** You will be alerted if the contact has already registered for the event.

3. Click **Save & Close**. The registration will appear in the Event Showcase.
4. Continue the registration process as you would for any other event, answering questions and selecting the appropriate registration options and program items as desired. You can also add a guest. The guest registration will appear in the showcase as **[Full Name] Guest of [selected registrant]**.
5. Click **Proceed to Checkout** to complete the registration process.

> **Note:** You can cancel or edit the registration information of any registrant in your Event Showcase before you checkout. Simply select the registration you would like to edit and click **Edit [Registrant Name] registrant information**.

## Searching for events

### Event search

You can search for events by month, event name, city, state, or province, or topic in **Events > Find events**. Staff users can search for all events, including events that are not web-enabled when defined from the Advanced Accounting Console or Desktop.

> **Note:** When searching for multiple locations for City and State, put each value in quotations and use commas between multiple values. For example, enter "Austin," "Dallas," "Houston" to search for Events in those three cities.

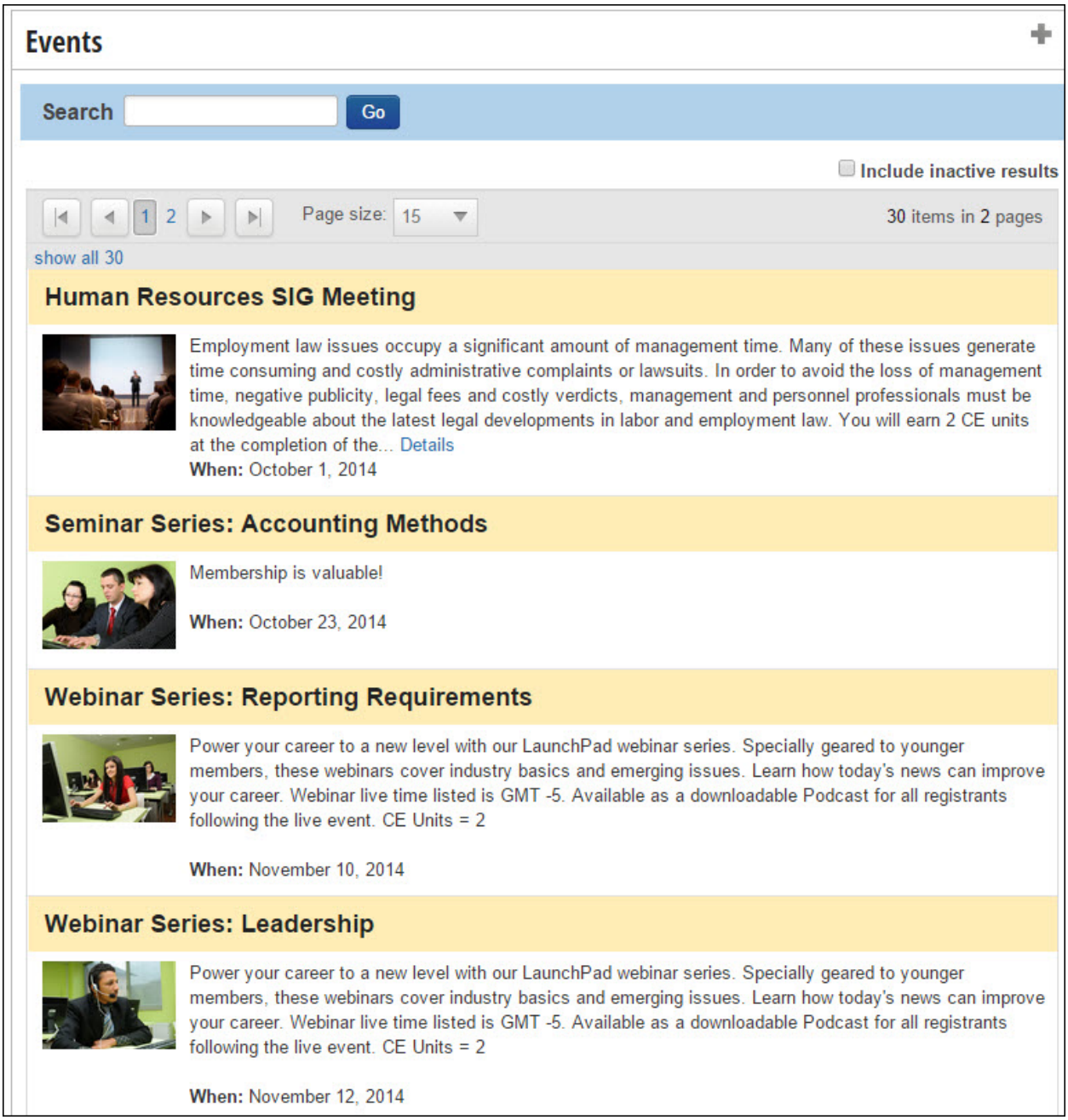



**Note:** This page can be configured to list any type of event using the **ViewAll** query. Access this query from **RiSE > IQA > EventManagement > DefaultSystem > Queries > EventSearch** to add a filter for the event Type.

### Event list

List active events by selecting **(Event** tab) **> Find events**.

**Note:** You can configure this page to list any type of event using the **ViewAll** query. Access this query from **RiSE > IQA > EventManagement > DefaultSystem > Queries > EventList** to add a filter for the event Type.




### Event calendar

Go to **Events > View event calendar** to view events by Day, Week, Month, or Timeline. Events listed on the **Event Calendar** are color-coded to indicate visibility and availability for registration:

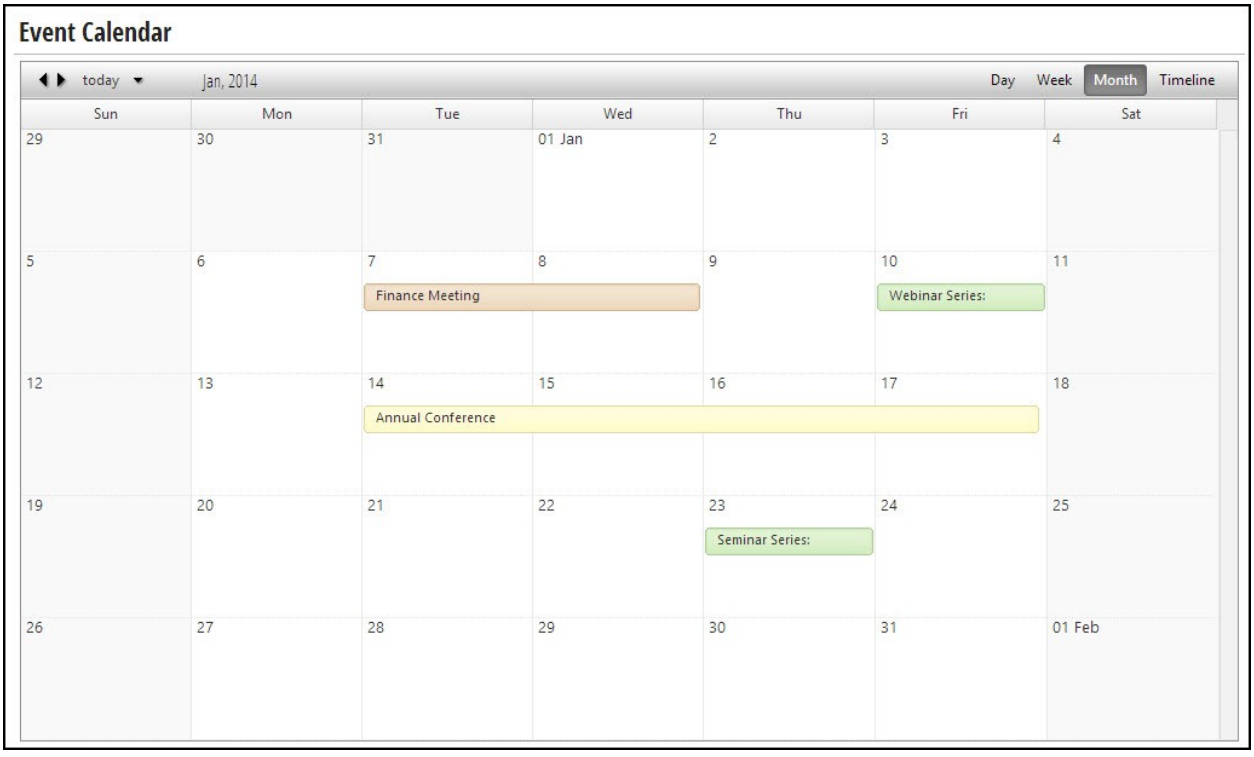
- Green indicates that the event is visible to all users and open to registration.
- Yellow indicates that the event is visible to all users but not open to registration.

- Orange indicates that the event is visible only to staff users.

> **Note:** If you would like to display an explanation of the event colors on the **Event Calendar** page, add a Content Html content item that includes the relevant information.

Events appear on the calendar depending on their specified beginning and end dates defined when the event was created:

- If there was no date range specified, the event will display on the calendar for non-staff users to see.
- If the date range includes the current date, the event will display on the calendar for non-staff users to see.
- If the date range does not include the current date, only staff users will see the event on the calendar.

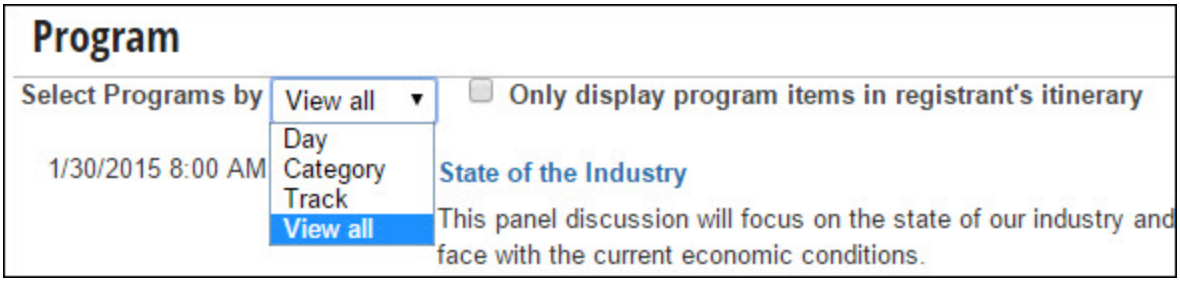



## Event content items

Use the Events content items (**Content Gallery > Offering**) to design and present your events for self-service registration in your public-facing iMIS website:

- **Event Display** – shows event information, manages registration status, and (optionally) permits users to register others
- **Event Program Display** – lists all program items within an event that the registrant can select, with the ability to group the program items by day, track, and category, if they are defined:

  Click to view image



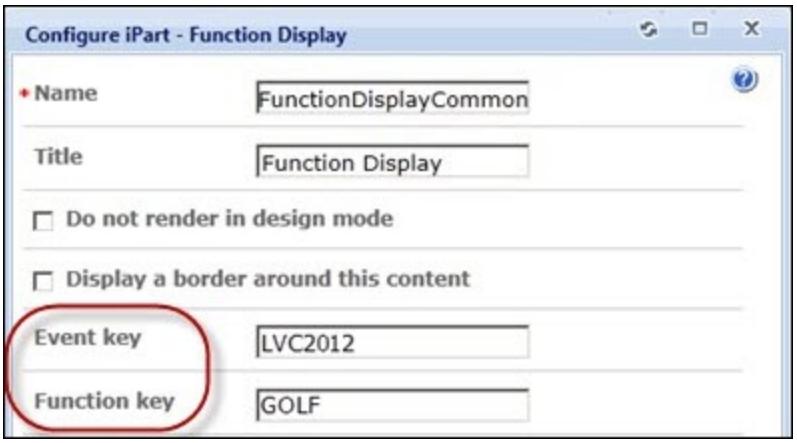

- **Function Display** – shows program item information and modifies registration status
- **Event Edit** – edits details about an event and allows users to create new events when no event key is specified
- **Function Edit** – edits details about a program item and allow users to create new program items when no function key is specified

> **Note:** Anonymous visitors to your website (both non-members and members who have not signed in yet) and can view information about events and program items. However, to register, they must sign in.

### Referencing by key

These content items reference specific events and program items directly by use of a *key*. Usually keys are passed by the URL, but you can also specify a key when configuring a content item. Keys in the URL override those in the configuration.

Click to view image




Keys are required for the Display content items. If a key is missing (that is, a key is neither passed on the URL nor specified in the configuration) in a Display content item, then the content item hides itself from your users. If a key is missing in the Edit content items, then the content item will create a new event or program item.

> **Note:** It takes a while for the indexing service to remove a deleted event. If a content item cannot hide itself because of this delay, it reports that the event was deleted.

Finding event keys

How you identify the key for a specific item depends on whether it is an event or a program item:

- **Event key** (**Meet_Master.MEETING** column): This comes from the **Event Code** defined in the event.
- **Function key** (**Product_Function.PRODUCT_CODE** column): This comes from the **Program Item Code** defined in the program item.

**Connecting event content items for dynamic refreshing**

1. Edit the content record that contains the event content items (*Event Display*, *Event Program Display*).
2. Set up the connection:

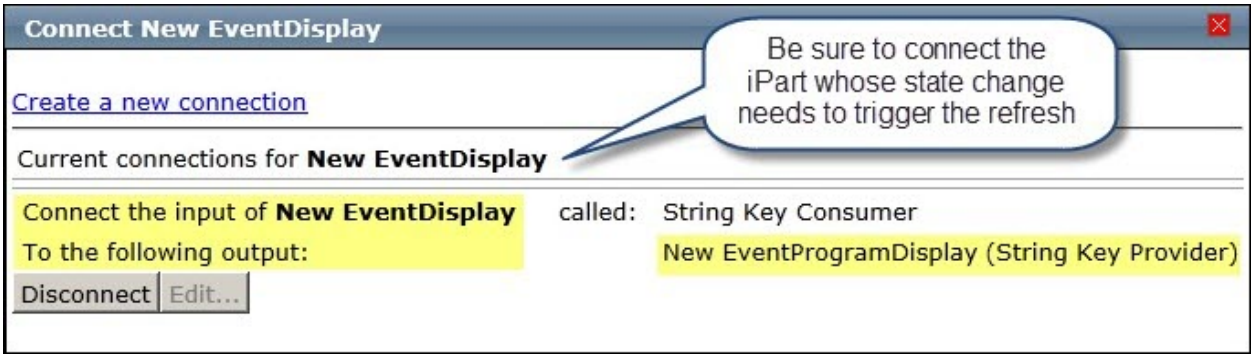
- Select **Connect** on the *Event Display* content item's title-bar menu. The **Connect** box that opens shows you any current connections and lets you disconnect them.

- Select **Create a new connection**. The **Connect** box that pops up prompts you to create one of four connection types.

> **Note:** Do not be misled by the language of connection. The **Consumer** is the *actor* that triggers a refresh on another content item, and the **Provider** *provides* a pointer to itself to the Consumer.

3. From the **String Key Consumer** drop-down, select your *Event Program Display* content item.
4. Select **Connect**.

Click to view image




5. Click **Save**.
6. **Publish** the content record.

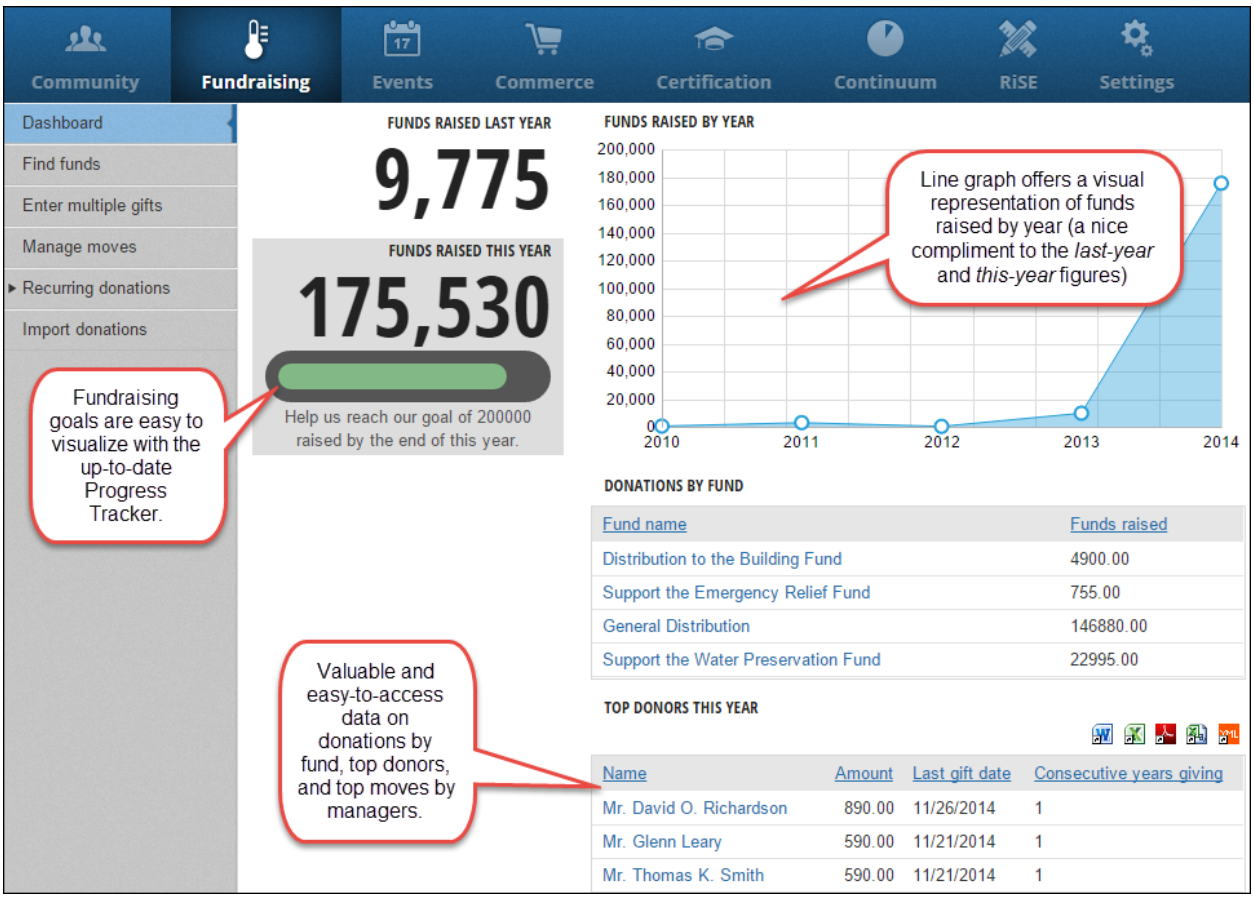
### Connecting content items to refresh program items

In order for the Program Display content item to refresh automatically whenever a user changes the selected registrant, it needs a *connection* to the Event Display content item on the content record that they share. You will need to create connections for any event pages that you design from scratch using the content item's **Connect** feature, which you enable separately from **Configure**.

> **Note:** Check a content item's Configuration Help topic to find out if it supports any connection options. A content item has no connection support (neither consumer nor provider) unless its author added it.

# Fundraising

Fundraising offers an easy-to-read Dashboard Overview of your fundraising activities for present and past years, as well as figures on new donors using Acquisitions.




## Overview

- Funds raised last year
- Funds raised by year
- Funds raised this year
- Donations by fund
- Top donors this year
- Top moves managers this year

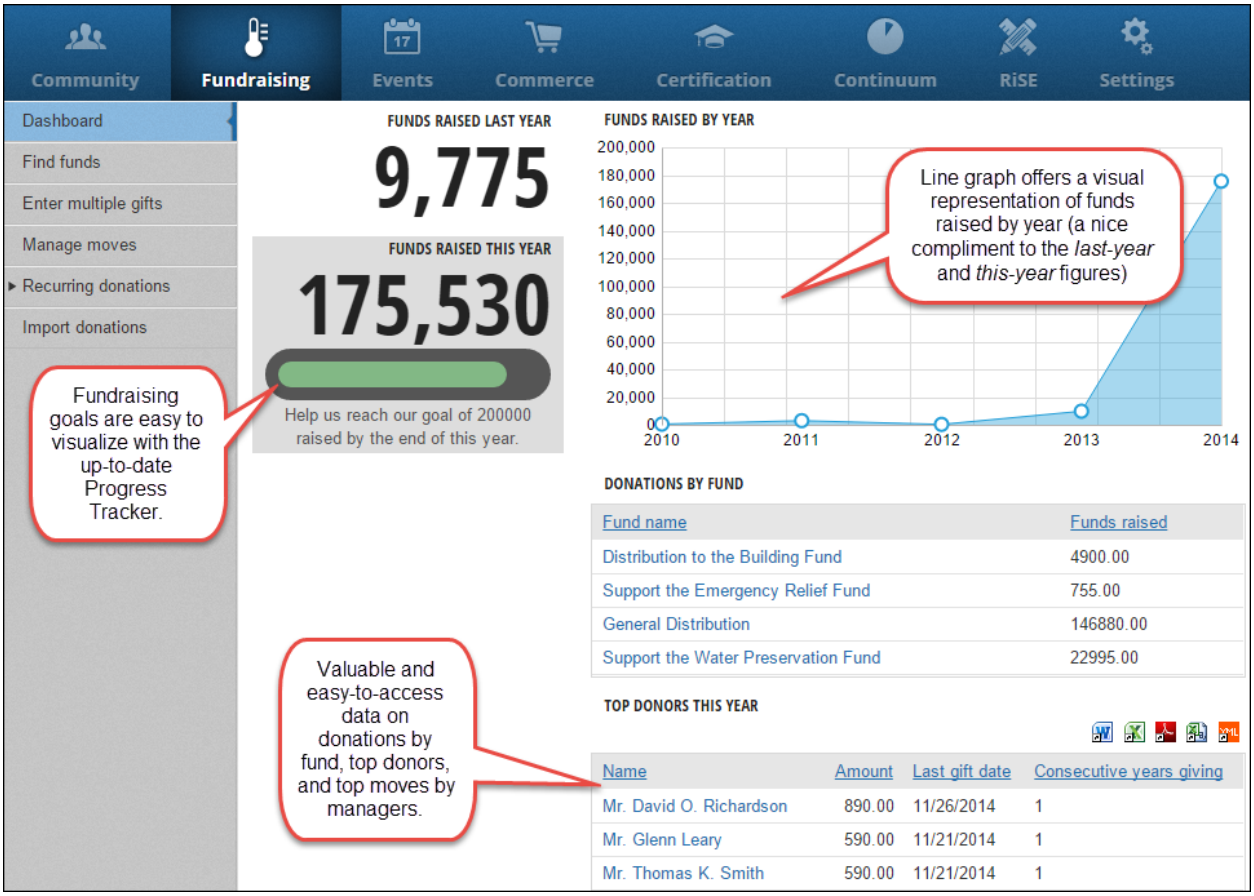
*See also*

- Enter Multiple Gifts
- Moves Manager
- Friendraising

- Gift Aid (UK)
- Standing Orders (UK)

## Fundraising

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*See also*

- Enter Multiple Gifts
- Moves Manager
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- Gift Aid (UK)
- Standing Orders (UK)

## Enter Multiple Gifts

The **Enter multiple gifts** window in the iMIS Staff site lets you quickly enter new gifts or single pledges based on default values. For each session you can set the default values for a specific gift or pledge. After setting the default values, you can enter as many gifts or pledges as needed in one session.

The **Single Gift** and **Single Pledge** gift types are the only gift types supported for Multiple Gift Entry. The MultipleGift Entry table does not support the following:

- Installment gifts
- Split gifts
- Matching plans

> **Note:** To use Multiple Gift Entry, your administrator must set up batch control in the Advanced Accounting Console at **Finance > Options > Configure accounting options > Batch Control**.

### Enabling web-based Multiple Gift Entry

Do the following to enable the web-based Multiple Gift Entry:

1. Grant the **Full** users **Fund Raising** authorization level **3** or higher:
   a. In the Staff site, go to **Settings > Security administration > Users**.
   b. Find the contact for which you want to grant **Fund Raising** authorization.
   c. Expand the **Staff Access** panel.
   d. In the **Module Authorization Levels** area, set the **Fund Raising** authorization level to **3 - Limited Entry/Edit**.
2. Set the system to use batches. In the Advanced Accounting Console, go to **Finance > Processes > Manage batches**.

### Setting defaults for Multiple Gift Entry

To process gifts quickly, you enter shared field values (defaults) to set up your Multiple Gift Entry table. After you submit these values, iMIS builds your pre-populated table, ready for data entry.

> **Note:** In Multiple Gift Entry, you cannot enter an in-kind gift or asset.

1. In the Staff site, go to **Fundraising > Enter multiple gifts**.
2. In the top half of the table, enter the required overview fields and any others that apply. Most of these fields are in the Single Gift entry form.

- (required) **Date Received**
- (required) **Batch** – Lists existing open batches.
- **Distribution**
- **Salutation**
- **Appeal**
- **Merge**
- **Campaign**
- **Sender**
- **Fund**
- **Pay By** – Lists the available payment types associated with the selected batch type. The description displayed is the **Title** of the cash account defined by the system administrator in **Accounting > Options > Set up tables > Set up cash accounts**.

3. In the bottom half of the table, enter one or more gift detail fields:

- (required) **Gift Type**
- **Gift Amount**
- **Description**
- **Notes**

4. Specify the number of entries you want to pre-populate with these defaults: **How many rows would you like?**
5. Click **Go**.

**Using Multiple Gift Entry**

When using the **Enter multiple gifts** window, gifts paid for in cash or by check cannot be entered in the same batch as gifts paid for with debit or credit cards. Instead, cash and

check gifts must be entered in a batch enabled for cash. When you create a batch for a cash or check gift entry, select an account from the **Cash Table** field that is set up for cash (in the Advanced Accounting Console, go to **Finance> Processes > Manage batches**).

> **Note:** If the **Multi-use checkbox** is labeled in **Settings > Fundraising > Configure fundraising options**, then the generic checkbox appears next to the **Notes** column in the Multiple Gift Entry table. The checkbox is the last field on each line item in the grid.

1. In the Staff site, go to **Fundraising > Enter multiple gifts**.
2. To customize the Multiple Gift Entry table, enter the field default data.

   > **Note:** On the web, the batch selected on the **Enter multiple gifts** window is for Multiple Gift Entry transactions only. No other types of transactions can be entered.

3. Click **Go**. The **Enter multiple gifts** window is updated with a table for data entry.
4. In the table, enter the donation information. You can override the value in any of the multiple entry fields for any gift or pledge.

   > **Note:** On the web, save your entries before clicking another tab, or your work might be lost.

5. Click **Save**.

Keyboard shortcuts for Multiple Gift Entry

Once your cursor is in the table, you can complete data entry without using the mouse:

- **Tab** – moves from left to right
- **Enter** on an icon pops up the needed window (**Search** or **Add donor information**)
- **Arrow Down** – moves the user to the donor id field at the start of the next row
- **Alt+S** – submits the batch to iMIS

Substituting a credit card holder name

During Multiple Gift Entry, you can submit donations for a donor with a credit card under a different name by manually overriding the donor's name in the **Name on Credit Card**

column. iMIS substitutes the correct name.

iMIS automatically associates the **Name on Credit Card** with the donor based on how you searched for the donor:

- **By ID number**: The text **[Default:Donor's Name]** appears in the **Name on Credit Card** column. This indicates that the **Name on Credit Card** will be substituted with the donor's name.
- **By contact name**: The name of the donor appears in the **Name on Credit Card** column.

## Moves Manager

Major gifts fundraising requires a highly individualized and hands-on approach. Moves management is a system for planning and reporting the relationship between the organization and a potential donor, specifically targeting major gifts.

Your moves management plan can include the identification of your most loyal donors and the steps to cultivating the relationship over a period of time. This increases your understanding of the constituent and enhances their engagement with your organization, so that they are ready to support your cause at the right time.

iMIS Moves Management allows you to provide your staff with a strategic process for a positive and rewarding relationship with their prospects and donors. They record significant interactions during the donor journey, which helps your organization better forecast gift revenue (pipeline). And, because staff are empowered to act strategically, you can meet your goals with greater efficiency.

Each Moves Manager (solicitor) is assigned the responsibility for cultivating a relationship with specific constituents and tracking the progress of the plan. In large organizations, a number of Moves Managers may report to a Major Gifts Manager.

### To designate a Moves Manager

1. From the staff member's account page, select the **Donor Data** tab.
2. Click the icon to edit **Donor Info**.
3. Select the **Is a moves manager** option and **Save**.

### To assign a Moves Manager to a Major Donor

1. From the donor/prospect's account page, select the **Donor Data** tab.
2. Click the icon to edit **Donor Info**.
3. From the drop-down, select the **Moves Manager** to be associated with this contact and **Save**.

**To set up a cultivation plan for a Major Donor**

1. Sign in as a Moves Manager.
2. Select **Fundraising > Manage moves**.
3. Select a contact.
4. Click the icon to edit the **Cultivation Plan**:
1. Select the **Gift Type** and **Estimated Value**.
2. Enter the **Planned Ask Time**.
3. Select the **Cultivation Stage** and **Quality**, for example "Top Priority."
4. Add any **Note** that is important to the plan.
5. Click the icon to edit **Cultivation Activities**:
1. Select the **Type** of activity or move.
2. Enter the **Date** and a **Note**, if desired.
6. **Save and Close** the window.

## Friendraising

Friendraising adds social networking and peer-to-peer fundraising functionality to the iMIS fundraising product line. Customers who add Friendraising to their iMIS solution can empower their constituents to reach out to new members and donors. Friendraising supports campaigns and special events that rely on fundraising among peers to succeed.

This entirely web-based service empowers both the organization and its supporters. Organizations are able to communicate directly with team captains, share fundraising tips and tricks, upcoming deadlines, success stories, and other key information for the campaign. The result is dramatically increased campaign and member recruitment and fundraising revenue built upon of the strength of one-to-one relationships.

Friendraising consists of two pieces:

- The **Friendraising Administration Console** (a third party application) provides you with a site where you can create online fundraising events, from which your supporters can sign

up to participate, create their own personal pages, set up collection goals, raise funds, and promote their participation to their friends, family, and others.

> **Note:** Contact your AiSP about obtaining the Friendraising Administration Console, which is separate from the iMIS Friendraising interface. The console is a required component of the Friendraising feature.

- The **Friendraising Interface** in iMIS provides the tools you need to import all activities from the Friendraising site into iMIS to create new contacts, event registrations, and donations. When a member clicks **Sign Up** on their Friendraising event home page, that transaction is considered a registration in the Friendraising system. During sign up, the member can add a Friendraising donation. iMIS uses a similar model to integrate transactions:
  - A Friendraising constituent is imported as an iMIS Contact.
  - A Friendraising registration is imported as an iMIS Event Registration.
  - A Friendraising donation or sponsorship is imported as an iMIS Donation.

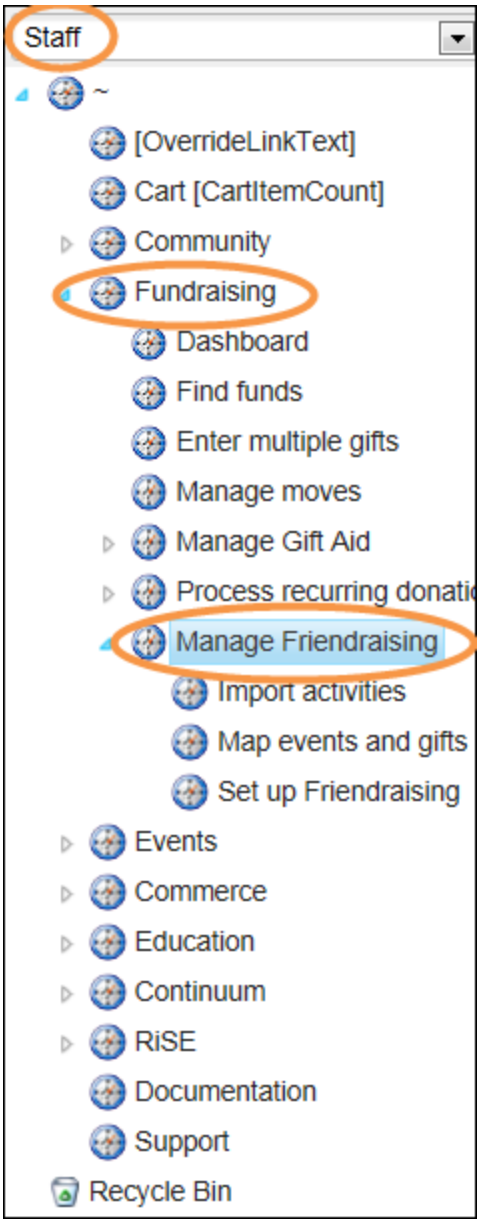
**Enabling Friendraising**

iMIS comes with the Friendraising feature pre-installed, however, by default, it is hidden and must be enabled. This is accomplished by unhiding the **Manage Friendraising** navigation item.

> **Note:** The steps in this section are based on the default configuration of Friendraising. Your view of the product may not match these steps if your organization has implemented this feature in another way.

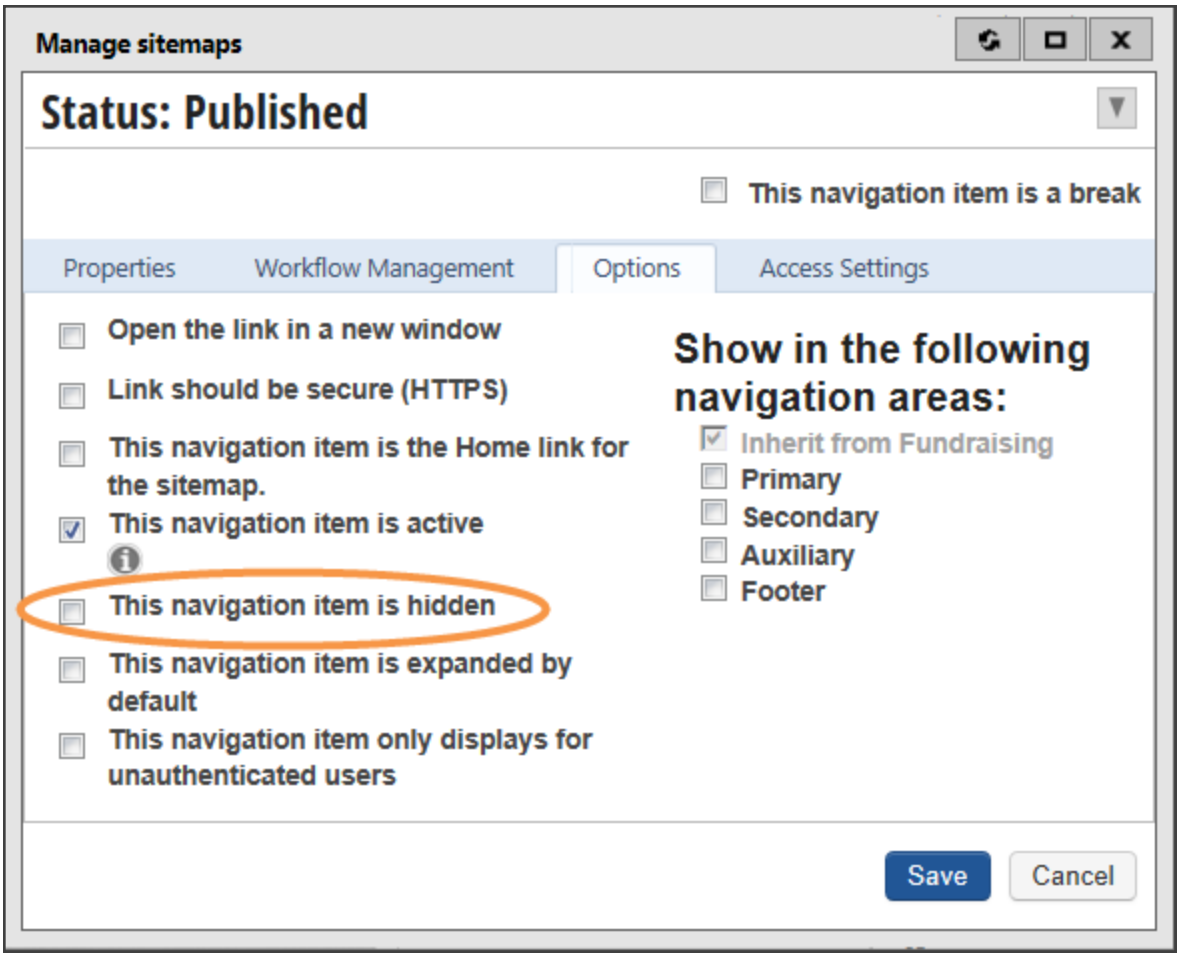
1. In the Staff site, go to **RiSE > Site Builder > Manage sitemaps**.
2. From the drop-down menu above the sitemap tree, select **Staff**.
3. Reveal the **Manage Friendraising** navigation item.

   Click to view image



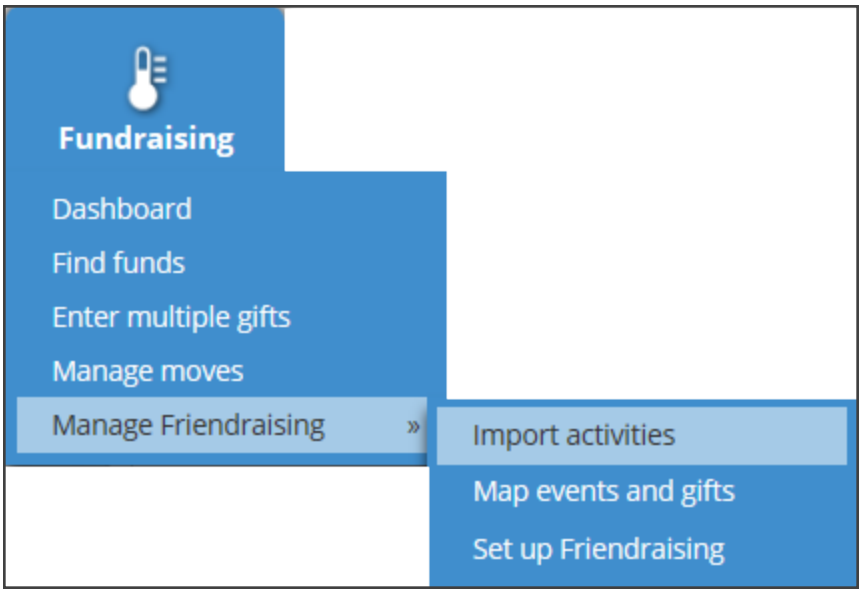

- In the sitemap tree, expand **Fundraising**.
- Select the **Manage Friendraising** navigation item.
- Click **Edit**.
- Under the **Options** tab, clear the **This navigation item is hidden** checkbox.
- **Save**, and close the window.

Click to view image




- From the toolbar, click **Publish**.
  The three **Friendraising** pages, **Import activities**, **Map events and gifts**, and **Set up Friendraising**, are displayed.

  Click to view image




4. (optional) Set up on-demand imports using the **Friendraising Importer** content item.

   **Note:** To use this content item, your AiSP must help you set up the Friendraising Administration Console for on-demand exports.

- From **RiSE > Page Builder > Manage content**, edit the **Friendraising Imports** content record.

  **Note:** By default, this is available from **Core Content > Tools > Friendraising Imports**, However, depending on your organization's configuration selections, this content record could be elsewhere.

- **Remove** the **File Importer For Web Services** content item.
- Click **add content** to find and select the **Friendraising Importer** content item.
- **Save** and **Publish** the content record.

**Setting up Friendraising**

To start using iMIS Friendraising:

- Update the **Staff** sitemap and configure the Friendraising pages from **Content Management**.
- Define the settings required to use the Friendraising Bridge in iMIS.

> **Note:** These settings are defined within the third party Friendraising Administrative console.

- Map the events defined in the Friendraising Administration Console to events and gifts defined in iMIS.
- (optional) Create user-defined tabs for the Friendraising tables.
- (optional) Create the Team Participation report.

> **Note:** Contact your AiSP about obtaining the Friendraising Administration Console, which is separate from the iMIS Friendraising interface. The console is a required component of Friendraising.

Setting up the Friendraising pages in iMIS

**Setting up the default member type of imported Friendraising contacts**

Your system's default member type is assigned to any new contacts created when importing Friendraising transactions. If you have not already done so, select your default member type from **Settings > Organization > The default Customer Type to use when creating new customers online**.

**Configuring the Friendraising pages**

The Friendraising pages are built in iMIS using content records and iParts|topic=Concept: content records, iParts, and content types that you can configure for the needs of your organization. For information about how to configure content items, see Fields: Content Gallery. iMIS Friendraising is comprised of the following:

| Description | Default navigation | Default content records | Content items |
|---|---|---|---|
| New node on the Fundraising tab to organize the Friendraising pages. | Fundraising > Manage Friendraising | (none) | (none) |

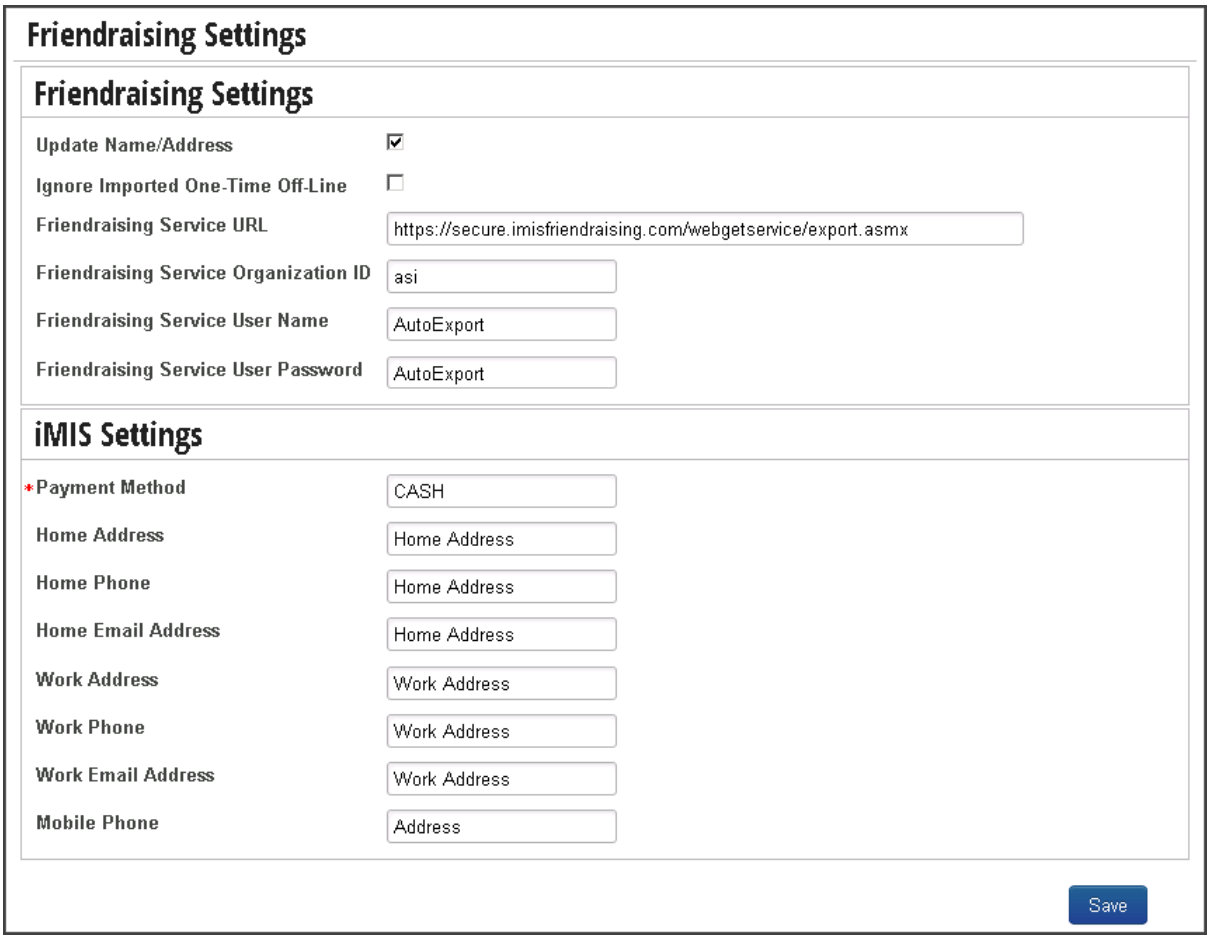
| | | | |
|---|---|---|---|
| Staff can import and process Friendraising Export Files downloaded from the Administration Console. The Export File must be manually downloaded first before you can import it. | Fundraising > Manage Friendraising > Imports | @/iCore/Tools/Friendraising_Imports | • File Importer For Web Services<br>• File Viewer For Web Services<br>• Log Viewer For Web Services |
| Staff can import Friendraising Export Files on demand from the third party Friendraising Administration Console, without the need to download the file first. If you prefer to use this import method, edit the *Friendraising Imports content record* and replace the *File Importer For Web Services* content | (none) | (none) | • Friendraising Importer |

| | | | |
|---|---|---|---|
| item with the *Friendraising Importer content item*.<br><br>*Note:* You must contact your AiSP to request that they enable your Friendraising Administration Console for exports to use this content item. | | | |
| Staff can map the events defined in the Friendraising Administration Console to gifts and/or events defined in iMIS. | Fundraising > Manage Friendraising > Map events and gifts | @/iCore/Tools/Friendraising_Mappings | • Friendraising Mapping |
| Staff can define the settings required to use the Friendraising Bridge in iMIS. | Fundraising > Manage Friendraising > Set up Friendraising | @/iCore/Tools/Friendraising_Settings | • Friendraising Settings |

## Defining Friendraising settings

To import Friendraising contacts, event registrations, and gifts, you must define your connection settings and map the Friendraising events to iMIS events and distributions.

1. In the Staff site, go to **Fundraising > Manage Friendraising > Set up Friendraising**.
   Click to view image




2. Define the following **Friendraising Settings**:

- **Update Name/Address**: Enable this option if you want to update the name and address of Friendraising contacts in iMIS when differences are detected during an import. For example, if an existing contact registers for a Friendraising event using a new street address, their iMIS contact record is updated with the new address when you import the Friendraising transaction.
  This option does not affect new Friendraising contacts, which always generate new contact records in iMIS.

- **Ignore Imported One-Time-Off-Line**: Select this option if you do not want to import transactions marked as One-Time-Off-Line in Friendraising. This marker indicates that a trans-

action has been imported to the Friendraising Administration Console from an external source.
For example, when setting up a new Friendraising implementation, some users import donations into the console to maintain a historical record. These imported transactions are marked as One-Time-Off-Line in the console.

- To download your Friendraising Export Files to iMIS on demand via the **Friendraising Importer** content item, you must enter the following authentication information.

> **Note:** If you have not already done so, contact your AiSP to request that they enable your Friendraising Administration Console for on demand exports, so that you can enter the information below.

  - **Friendraising Service URL**
  - **Friendraising Service Organization ID**
  - **Friendraising Service User Name**
  - **Friendraising Service User Password**

3. Define the following **iMIS Settings**:

- **Payment Method**: Enter an iMIS **Cash Account Code** that is a **Cash** type. Incoming Friendraising transactions are associated with this code. iMIS Cash Account Codes of other types (i.e. Credit Card) cannot be used, because the incoming transactions have already been billed via the payment gateway associated with your organization's Friendraising account. We recommend that you create a distinct **Cash Account** of the **Cash** type to track Friendraising transactions (in the **Cash accounts** window in the Advanced Accounting Console at **Finance > Options > Set up tables > Cash accounts**), so that you can make sure these are reconciled separately from other iMIS transactions.
- If you want to capture address data from your imported Friendraising transactions, you must enter an iMIS **Address Usage** label for each Friendraising field listed below. You can find your **Address Usage** labels in Desktop from **Customers > Set up module > General > Address and Notes**.
- **Home Address**
- **Home Phone**
- **Home Email Address**

- **Work Address**
- **Work Phone**
- **Work Email Address**
- **Mobile Phone**

> **Note:** You can only record one phone number per each iMIS **Address Usage** label. Therefore, you must assign a unique iMIS **Address Usage** label to the Friendraising **Home Phone**, **Work Phone**, and **Mobile Phone** settings.

> **Note:** Similarly, you can only record one email address per each iMIS **Address Usage** label. Therefore, you must assign a unique iMIS **Address Usage** label to the Friendraising **Home Email Address** and **Work Email Address** settings.

4. Click **Save**.

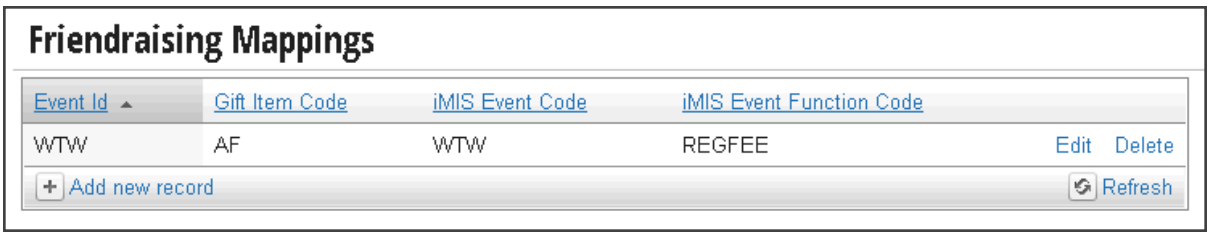
#### Mapping events and gifts

To import registrations and gifts, you must first map each event defined in the Friendraising Administration Console to an event defined in iMIS. To map events, you need the Friendraising Event ID as well as the iMIS distribution, event, and function codes.

Each Friendraising event you create in iMIS must include at least one event function. The function fees are defined in the Friendraising Administration Console.

Each Friendraising donation is considered a single gift in iMIS. When a donor sponsors an event participant, the donation is imported as a single gift from the sponsor, but iMIS also records a soft credit in the iMIS Advanced Accounting Console on the event participant's record to show who is responsible for helping to obtain the gift.

1. In the Staff site, go to **Fundraising > Manage Friendraising > Map events and gifts**.
Click to view image



2. Click **+ Add new record**.
3. Define the following Mapping elements:

- **Event Id**: The Friendraising event ID listed in the export file.
- **Gift Item Code**: The iMIS Distribution Code to be assigned to imported gifts associated with this event.
- **iMIS Event Code**: The iMIS Event Code to be assigned to imported registrations associated with this event.
- **iMIS Event Function Code**: The iMIS Event Function Code to be assigned to imported event function registrations associated with this event.

> **Note:** If a registration fee has been set up for the event in the Friendraising Administration Console, then you must map that event to an **iMIS Event Function Code** that has the same fee amount.

4. To save the event mapping, click Insert.

Setting up Friendraising user-defined tabs in iMIS Advanced Accounting Console

To record and display important information about Friendraising event participants in the iMIS Advanced Accounting Console, you must first run a SQL script that allows you to create user-defined tabs based on the Friendraising-specific tables.

Do the following to enable the Friendraising tables for user-defined tabs:

1. From the **~\AsiPlatform\Asi.Scheduler_iMIS\util** folder located in your appserver's installation directory, locate the **RegisterFriendraisingUDTablesV10.sql** script. The **~\AsiPlatform\Asi.Scheduler_iMIS\util** path is relative to the root of your iMIS application.
2. From SQL Server Management Studio, execute the **RegisterFriendraisingUDTablesV10.sql** script on your iMIS database.
3. From iMIS Advanced Accounting Console, create user-defined tabs for the following Friendraising tables and fields:

- To create and edit the user-defined tables, go to iMIS Advanced Accounting Console and select **Configure** tab > **Membership > Configure membership options > Additional Windows**.

| Description | Table | Fields |
|---|---|---|
| Contains information about any teams a contact has joined as part of an event registration. | **Name_FRTeamInformation** | ID<br>SEQN<br>MEETING<br>TeamID<br>TeamName<br>TeamType<br>TeamGoal<br>TeamCaptainAlternateId |
| Contains information about a contact's event registrations. | **Name_FREventInformation** | ID<br>SEQN<br>MEETING<br>LocationID<br>RegistrationType<br>ParticipantGoalOnline |
| Contains survey questions and the contact's answers. | **Name_FRSurveyQuestion** | ID<br>SEQN<br>MEETING<br>QuestionID<br>AnswerID<br>AnswerValue |
| Contains the contact's mail and | **Name_FRAd-** | ID |

| | | |
|---|---|---|
| email opt out preferences. | **ditionalInfo** | HomeMailOptOut<br>HomeEMailOptOut<br>WorkMailOptOut<br>WorkEMailOptOut |
| Contains a record of each registration or donation that has been successfully imported for a contact. | **Name_FRTransactionLog** | ID<br>SEQN<br>TransactionID<br>TransactionType<br>EventID<br>ConstituentID<br>DateImported |
| Contains a contact's AlternateId, which is the constituent ID in Friendraising.<br>*Note:* Name_AlternateId is not a user-defined table specific to Friendraising, but does contain information useful for Friendraising purposes. | **Name_AlternateId** | ID<br>SEQN<br>IdType<br>AlternateId |

### Managing Friendraising transactions

Use iMIS Friendraising to import Friendraising event registrations, donations, and contacts via Export Files downloaded from the Friendraising Administration Console.

> **Note:** The steps in this section are based on the default configuration of Friendraising. Your view of the product may not match these steps if your organization has implemented this feature in another way.

Importing, processing, and posting Friendraising data

1. Import the Friendraising export file manually.
   - Manual download, using the **File Importer For Web Services** content item:
     - Download the Friendraising export file from your Friendraising Administration Console.
     - In iMIS, navigate to **Fundraising >Manage Friendraising > Import activities**.
     - Select **XML file** from the **File Format** list.
     - **Browse** for the export file that you just downloaded, and then click **Upload**.
     - The file is added to the list under the **File Name** column and is updated with a timestamp.
2. From the file list, click **Process** on the line of the file you imported.
   When you click **Process**, iMIS uses your mappings|topic=Defining Friendraising mappings and settings to process the registrations and gifts in the Friendraising export file, and it removes the import file from the File list. One of two scenarios may occur:

   - *Import succeeds:*
     - **Success - [import file name].log** is created in the Log Viewer. The log lists each transaction that successfully posted.
   - *Import fails* (one or more transactions could not be processed):
     - **Warnings - [import file name].log** is created in the Log Viewer. The log lists each transaction that could not be processed and any payments that have been successfully posted. Review the error messages to determine how to resolve the problems.
     - **[import file name] - error - [timestamp].xml** is created in the File list. This file contains only those transactions that could not be processed. After you resolve the problems listed in the Warnings log file, Process this file to complete the import.
3. From iMIS Advanced Accounting Console, navigate to **Accounting > Processes > Manage batches**.
   Imported Friendraising transactions are automatically placed in system-generated batches that are created based on the date the import took place. All of the transactions from a single day are placed in a batch named **Auto-Created**, created by **AUTOBATCH**.

This batch may contain other auto-created transactions. If today's Friendraising batch is closed, and a new import takes place, a new batch is created with today's date.

4. To review the imported Friendraising transactions, select the appropriate **Auto-Created** batch and click **Print Selected**.
5. To post the batch, click **Post Selected**.

Creating a Team Participation report

For easier querying and reporting, use the **vFRParticipantTeamCaptain** view, which unites team, team captain, and participant information. The view is created when you install Friendraising, and it contains the following columns:

- ID
- Meeting
- Team ID
- Team Name
- Team Type
- Team Goal
- Captain ID

To report on this information, create a Team Participation query based on a business object that uses this view.

Do the following to create the Team Participation report:

1. Create the new business object.

- In the Staff site, go to **RiSE > Business object designer.**
- Select **New > Design Business Definition**.
- **Name** the object **FriendraisingTeamInfo**.
- Click **Create Object**.
- (**Database** tab).
  - From the **Tables** section, click **Add**.
  - Select the **vFRParticipantTeamCaptain** view and click **OK**.
  - The **Available Columns** section is updated to list the view's fields.
  - From the **Available Columns** list, select the fields you want to be listed as Properties of the business object and then click **Add as Properties**. The properties are added in the

order you select them. Or you can **Add All as Properties**. If you add all fields as properties, the properties are added in alphabetical order.

- Click **Save** and then **Publish**.

2. Define a query using the new business object.
3. Create a report using the new query.

## Gift Aid (UK)

iMIS Gift Aid allows UK charities to reclaim tax on Gift Aid donations. This adds significant value to a gift at no cost to the donor.

### How Gift Aid works

Paul earned £1000 last month. Assuming he pays regular income tax on his earnings at the basic rate of 20%, £200 in tax was deducted from his pay, or £25 in tax for every £100 in pay.

Paul then makes a donation of £100 to your charity. If Paul completes a Gift Aid declaration, you can reclaim the £25 he paid in tax on this £100 donation. Thus, your charity receives £125 (£100 donation + £25 tax reclaim) at no extra cost to Paul.

### Changes to Gift Aid beginning April 6th, 2008

Since April 6th, 2000, charities have been able to claim Gift Aid relief at the basic rate of income tax (22%) if the individual donor consented and the donation was eligible for tax relief.

On April 6th, 2008, the basic rate of income tax changed to 20%, reducing the amount of Gift Aid relief available to charities. However, the government instituted a period of transitional tax relief that will last from April 2008 to April 2011. During this time, charities can claim 20% Gift Aid relief on donations and the HMRC will make up the remaining 2%.

Charities do not need to make a special claim for transitional relief. HMRC pays it automatically along with your Gift Aid tax repayment.

For more information about Gift Aid, visit the HMRC Gift Aid site.

### Managing Gift Aid (../Admin)

Use iMIS Gift Aid to manage the following tasks:

- Recording a contact's Gift Aid declaration, so that you can reclaim tax on their donations.
- Generating Gift Aid tax reclaim data so that you can track the eligible Gift Aid donations your organization has received. You can also mark these as claimed, so that those transactions do not show up in future iMIS generated reclaims.
- Creating a printable report that you can use to reclaim tax from the HMRC. Visit the HMRC for more information about how to reclaim tax on Gift Aid.

**Recording Gift Aid declarations**

If a donor is a UK taxpayer, they can make a Gift Aid declaration to your organization, so that you can reclaim the tax paid on their donation. Donors can make Gift Aid declarations online, by filling out a form, or by phone, but you must confirm the declaration in writing. The declarations you enter into iMIS are matched against the donations you receive when you generate Gift Aid tax reclaims. You can only reclaim the tax if a donor has a valid Gift Aid declaration.

A donor's declaration only has to be completed once for your charity and can be valid for as long as the donor remains a taxpayer. It is the donor's responsibility to inform you when they are no longer eligible for Gift Aid. In theory, all declarations could be open-ended. However, many organizations prefer to contact donors periodically to check that they are still taxpayers, and thus use an arbitrary declaration length of four or five years.

> **Note:** A 30-day cooling off period is applied to all gift aid declarations, based on the **Date Received** entered for the declaration. During the cooling off period, no tax can be reclaimed for the contact. Once the 30-day period is over, donations received from the contact are eligible for gift aid reclaims.

Entering a Gift Aid declaration

1. From iMIS Web View, select **Community > Find contacts**.
2. Search for and select a contact.
3. From **Contacts > Contact management**, select **Gift Aid declarations**.
4. Select **Create new declaration**.
5. Create a new declaration using the fields described in the Gift Aid declaration window section.
6. Click **Save**.

Generating Gift Aid tax reclaim data

1. Navigate to the **Tax reclaim** page in iMIS. By default, it is located on iMIS Web View under **Donations > Gift Aid**.
2. Enter the tax recovery information using the fields described in the Gift Aid tax reclaim window section.
3. Click **Generate Claim**.
   The new claim appears in the **Review Claim** section.
4. Select **Review** next to the new claim.
   The **Claim Details** page opens.
5. Review the transactions in the claim.

   > **Note:** iMIS does not check for missing or incomplete donor names in the claim. We recommend that you review the data and update records within iMIS as needed.

6. (optional) From the **In Claim** column, use the transaction checkboxes to exclude or include transactions in the claim. You can locate specific transactions using the **Transaction ID** or **Contact ID** fields.
   Changes to the transactions in the claim are automatically saved as you make your selections.
7. To ensure that the transactions in the claim do not appear in any future claims, select **Mark as Claimed**.

Creating a Gift Aid tax reclaim report for the HMRC

1. Navigate to the **Tax reclaim report** page.
   By default, it is located on iMIS Web View under **Donations > Gift Aid**.
2. From the list, select **Gift Aid Claim Report** and click **Run**.
3. In the **Gift Aid Reference Equals** field, enter the claim's **Tax Reclaim Reference**.
4. Click **Run**.
   The tax reclaim report appears.
5. To export the report to a PDF or Excel file, click the one of the export icons located in the top-left of the page.

Gift Aid declaration window

These fields define a donor's gift aid declaration. By default, these fields are found in the following location:

- From iMIS Web View, select **Contacts > Find contact**, and then search for and select a contact. From **Contacts > Contact management**, select **Gift Aid declarations**.

**Fields**

- **Prefix, First Name, Last Name** – Defaults to the selected contact's prefix and name. These fields must contain the name of the individual paying tax for the gift aid declaration.
- **Address, Address 2, Address 3, City, County, Postcode, Country** – Defaults to the selected contact's main address in iMIS. For HMRC reporting purposes, the address fields must contain the taxpayer's correct address.
- **High-rate tax payer** – Indicates that the donor is a high rate tax payer. This field is for informational purposes only and does not affect the amount of tax reclaimed. You could use this information, for example, to target marketing campaigns to these donors.
- **Declaration Notes** – Captures notes about the declaration.
- **Status** – Specifies the status of the declaration.
- **Declaration Method** – Specifies how the declaration was made.
- **Confirmation Required** – Indicates that confirmation of the declaration must be obtained from the donor before any tax can be reclaimed. For example, a declaration made verbally requires confirmation. When cleared, no further confirmation is required.
- **Confirmation Sent Date** – Specifies the date a confirmation letter was mailed to the donor.
- **Date Received** – Specifies the date the donor made the declaration.

> **Note:** A 30-day "cooling off" period is applied to all gift aid declarations, based on the **Date Received** entered for the declaration. During the cooling off period, no tax can be reclaimed for the contact. Once the 30-day period is over, donations received from the contact are eligible for gift aid reclaims.

- **Effective From** – Specifies the date from which the declaration is valid.
  - **Apply 4 year rule** – Sets the effective date of the declaration to a rolling four-year period that equals today minus 4 years.
  - **Other** – Specifies a fixed date from which the declaration is valid.

- **Expiry Date** – Specifies the end date of the declaration. An end date is not required. However, some organizations prefer to contact donors periodically to check that they are still taxpayers, and thus use an arbitrary declaration length of four or five years.
- **Related Appeal** – Specifies a related appeal code associated with the receipt of the declaration.

Gift Aid tax reclaim window

These fields define a donor's gift aid declaration. By default, these fields are found in the following location:

- From iMIS Web View, select **Donations > Gift Aid > Tax reclaim**.

**Fields**

- **Tax Reclaim Reference** – Specifies a unique reference for the claim. The reference can be any combination of letters, numbers, or special characters. It has a maximum length of 50 characters.
- **From / To** – Specifies the date range of the tax reclaim. The **From** and **To** dates must not cross the end of a UK tax year which runs from 6 April to 5 April the following year.
- **Tax Rate** – Specifies the tax rate to be applied to the tax reclaim. Claims made for transactions before 6 April 2008 use a 22% tax rate, and transactions after that date use the prevailing tax rate.

**Setting up Gift Aid (../Admin)**

To set up Gift Aid in iMIS, you must:

- Edit iMIS Web View sitemap to display the Gift Aid navigation items.
- Configure the Gift Aid pages.

Displaying the Gift Aid navigation items

1. In the Staff site, go to **RiSE > Site Builder > Manage sitemaps**.
2. From the drop-down menu above the sitemap tree, select iMIS Web View.
3. Reveal the **Gift Aid declarations** navigation item.

a. In the sitemap tree, select **Contacts > Contact management > Gift Aid declarations**.
b. From the toolbar, click **Edit**.
c. (**Options** tab) Clear the **This navigation item is hidden** checkbox.
d. Click **Save**.
e. Close the window.
f. From the toolbar, click **Publish**.

4. Reveal the **Gift Aid** navigation item.

a. In the sitemap tree, select **Donations > Gift Aid**.

b. From the toolbar, click **Edit**.

c. (**Options** tab) Clear the **This navigation item is hidden** checkbox.

d. Click **Save**.

e. Close the window.

f. From the toolbar, click **Publish**.

Configuring the Gift Aid pages

iMIS Gift Aid is built using content records and content items (Concept: content records, iParts, and content types) that you can configure for the needs of your organization.

By default, iMIS Gift Aid is comprised of the following:

| Description | Default sitemap navigation | Default content record | Content items |
|---|---|---|---|
| Record and manage Gift Aid declarations from donors. | Contacts > Contact management > Gift Aid declarations | @/iCore/Fundraising/Gift Aid declarations | ContentTypes/Offering/Gift Aid Declaration |
| Generate data for Gift Aid tax reclaims. | Donations > Gift Aid > Tax reclaim | @/iCore/Fundraising/Gift Aid tax reclaim | ContentTypes/Offering/Gift Aid Reclaim |
| Create tax reclaim reports for the HMRC. | Donations > Gift Aid > Tax reclaim report | (none) | (none) |

## Standing Orders (UK)

Some donors like to give recurring, open-ended gifts by instructing their bank to pay a certain amount of money each month, quarter, or year directly to the non-profit's bank account. In the UK, these bank instructions are known as Standing Orders. Unlike a continuous credit card donation or a direct-debit bank transaction, the donor initiates the Standing Order and the bank makes regular payments on the donor's behalf.

In iMIS, Standing Orders are known as Commitments. iMIS allows charities to manage various aspects of the Standing Order process, such as:

- **Handling donor commitments** – Logged-in public users can make a Standing Order commitment from a simple webpage and staff can add, update, or delete commitments using specialized staff screens.
- **Generating expected payments** – Staff can run a monthly report that calculates the income expected from each donor so that the non-profit knows how much income is expected from Standing Orders.
- **Importing bank payments** – On a periodic basis, the non-profit receives or downloads the file that contains information about all of the Standing Order payments it has received from donors. Using iMIS, staff can import and process this information to match bank payments to the expected payments. iMIS gifts are created for each matched payment.

### Managing Standing Orders (../Admin)

Use iMIS Standing Orders to manage the following tasks:

- Recording a contact's commitment to donate to your organization by Standing Order.
- Generating a record of the payments your organization expects to receive every month.
- Importing the Standing Order payment file you receive periodically from your organization's bank.
- Matching the payments you received from the bank to the payments you expected to receive.
- Resolving any mismatched payments.

> **Note:** The following steps are based on the default Standing Order configuration shipped with iMIS. If your organization has tailored this feature, your view of the product might not match the documentation.

Recording Standing Order commitments, Staff

1. From iMIS Web View, select **Contacts > Find contact**.
2. Search for and select the iMIS contact who has made the commitment.
3. Navigate to the **Standing Order commitments** page.
   By default, it is located on iMIS Web View from **Contacts > Contact management > Recurring donation commitments**.
4. Create a new commitment or edit an existing commitment.

> **Note:** A donor can notify you of their intent to make donations by Standing Order if your organization has implemented the **Recurring Donation Commitments Public View (UK)** content item.

Generating expected payments

1. Navigate to the **Expected payments** page.
   By default, it is located on iMIS Web View under **Donations > Recurring donations**.
2. Select a **Month/Year** and click **Generate Expected Payments**.

Importing the Standing Order payment file

1. Navigate to the **Import Standing Order payment file** page.
   By default, it is located on iMIS Web View under **Donations > Recurring donations**.
2. Select a **File Format**.
   The file format identifies the structure of the data within the file, so that iMIS can properly import and process the contents. Currently the **Standing Order payments file - BACS format** is the only supported format (see Understanding the supported Standing Order payment file format).
3. **Select** a file, and then click **Upload**.
   When you upload a file, it is prepared for processing as a common standing order payment file.

Matching imported payments to expected payments

> **Note:** The maximum import file size that can be processed depends on many factors, such as memory, processor speed, and load on the server. If you have any problems processing a large file, then we recommend that you break it up into

smaller pieces of no more than 1000 transactions per file.

1. From the **Files awaiting processing** section of the **Import Standing Order payment file** page, find the file you imported in the list. The file name has been updated with a timestamp.
2. Click **Process**.
   When you click **Process**, iMIS compares the information in the imported bank file to the expected payments you have on record. For iMIS to successfully create a donation payment for the correct contact, each of the following items must match up:

- Branch Sort Code
- Bank Account Number
- Match Reference Number
- Donation Amount

**Note:** An expected payment record must be generated for the month and year of the bank payment.

After iMIS does the comparison, one of two scenarios may occur:

- If all items in the bank payment file are matched to expected payments, then:
- A **Success - [import file name].log** is created in the **Log Viewer**. The log lists each payment that has been successfully matched. An iMIS gift is created for each successful match.
- The original import file is removed from the **Files awaiting processing** list.
- If one or more items in the bank payment file could not be matched to expected payments, then:
- A **Warnings - [import file name].log** is created in the **Log Viewer**. The log lists each payment that could not be matched and any payments that have been successfully matched. If a Warnings log has been created, you must review the errors and take steps to resolve the payment mismatches. An iMIS gift is created for any successful matches.
- The original import file is removed from the **Files awaiting processing** list.
- An [**import file name] - error - [timestamp].xml** file is created in the **Files awaiting processing** list. This file contains all of the items from the original bank payment file that

could not be matched. After resolving the payment mismatches, reprocess this file to complete the import.

Resolving payment mismatches

1. From the **Log Viewer** section of the **Import Standing Order payment file** page, find the **Warnings** log for the file you are trying to process: **Warnings - [import file name].log**.
2. Click the arrow on the left to expand the log.
   The log lists each payment that could not be matched and any payments that have been successfully matched.
3. Review the error entries in the list.
   The error log entry describes the problem iMIS encountered, the steps you should take to resolve the problem, and the associated payment data from the bank.
4. Resolve the payment mismatches using the information in the error messages.
5. From the **Files awaiting processing** section of the **Import Standing Order payment file** page, process the **[import file name] - error - [timestamp].xml** file that contains the payments that failed to match.
   If all of the problems have been resolved, a **Success - [import file name].log** is created in the Log Viewer. However, if there is still a problem matching payments, a new **Warnings - [import file name].log** is created in the **Log Viewer**.
6. Repeat the steps above until all payments have been matched.

Understanding the supported Standing Order payment file format

The Standing Order data file from your bank must be in the format described below for iMIS to successfully import the file and to match the payment details to the correct Standing Order commitments. Contact your bank to obtain the Standing Order data file. They should be able to provide you with the software necessary to electronically download the file in the following format.

> **Note:** Header and footer rows in the file are ignored during processing.

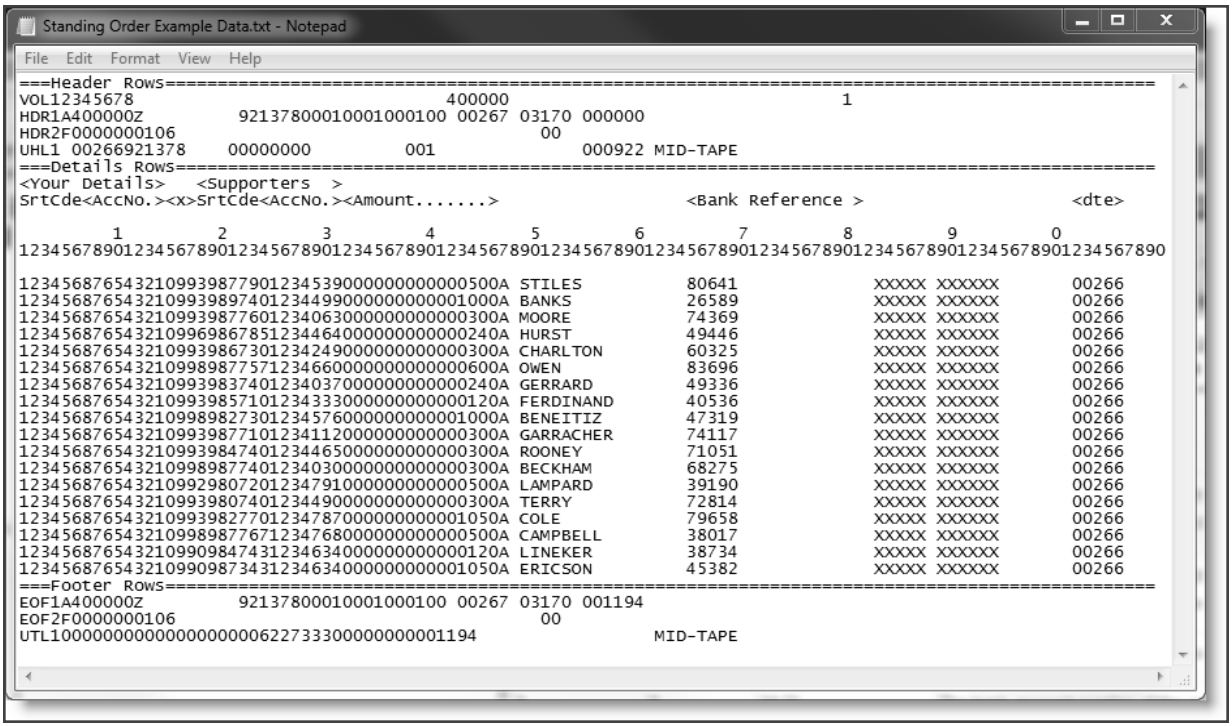
### Barclays Standard Format Layout 1, 106 character data record

| Field Number | Field Size | Character Position | Description |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1. | 6 | 1-6 | Sort Code of your account-holding branch. |
| 2. | 8 | 7-14 | Account Number to which the payment has been applied. |
| 3. | 1 | 15 | Account type.<br>Note: Must be 0 for the iMIS import. |
| 4. | 2 | 16-17 | Transaction code for the entry type.<br>Note: Must be 99 for the iMIS import. |
| 5. | 6 | 18-23 | Sort Code of the bank from which the payment originated. |
| 6. | 8 | 24-31 | Account Number of the originating contact. |
| 7. | 4 | 32-35 | The mandate identifier assigned by the originating bank. If none, this field is zero-filled. |
| 8. | 11 | 36-46 | The amount of the entry in pence, unsigned, right-justified and left zero-filled. |
| 9. | 18 | 47-64 | The originating customer name. |
| 10. | 18 | 65-82 | The reference number quoted by, or on behalf of, the originating customer. In iMIS, this corresponds to the Match Reference Number. If entered, normally the field is left-justified and space-filled for unused characters. |
| 11. | 18 | 83-100 | Space-filled field. |
| 12. | 6 | 101-106 | The date the entry was applied to the bank account, in bYYDDD format (b = blank, |

| | | | |
|---|---|---|---|
| | | | DDD = Julian date). |

## Sample Standing Order payment file




### Setting up Standing Orders (../Admin)

To set up Standing Orders, you must:

- Configure iMIS batch control for Standing Orders.
- Edit your sitemap to display the Standing Order navigation items.
- Configure the Standing Orders pages.

> **Note:** The steps below are based on the default Standing Order configuration shipped with iMIS. If your organization has tailored this feature, your view of the product may not match the documentation.

Configuring batch control for Standing Orders

To use iMIS Standing Orders, you must set up your AR/Cash batch control to enable either **Auto Sequential Batch Numbers** or **Auto Date Batch Numbers**, if one of these options is not already selected.

After you match the Standing Order payments you receive from the bank to the payments you expected to receive, an iMIS gift is created and automatically placed in system-generated **Internet** batches that are created based on the date the match was made. All of the transactions from a single day are placed in a batch with the same date. If today's **Internet** batch is closed, and a new Standing Order transaction takes place, a new batch is created with today's date.

Displaying the Standing Order navigation items

1. In the Staff site, go to **RiSE > Site Builder > Manage sitemaps**.
2. From the drop-down menu above the sitemap tree, select iMIS Web View.
3. Reveal the **Standing Order commitments** navigation item. In the sitemap tree, select **Contacts > Contact management > Standing Order commitments**.
4. From the toolbar, click **Edit**.
5. (**Options** tab) Clear the **This navigation item is hidden** checkbox.
6. Click **Save**.
7. Close the window.
8. From the toolbar, click **Publish**. The **Standing Order commitments** page is displayed on iMIS Web View.
9. Reveal the **Recurring donation**s navigation item. In the sitemap tree, select **Donations > Recurring donations**.
10. From the toolbar, click **Edit**.
11. (**Options** tab) Clear the **This navigation item is hidden** checkbox.
12. Click **Save**.
13. Close the window.
14. From the toolbar, click **Publish**. The Standing Order navigation items listed under **Recurring donations** are displayed on iMIS Web View.

Configuring the Standing Order pages

iMIS Standing Orders is built using content records and content items (Concept: content records, iParts, and content types) that you can configure for the needs of your organization.

By default, iMIS Standing Orders is comprised of the following:

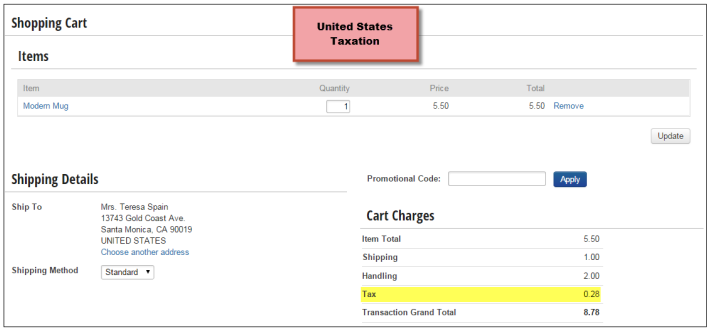
| Description | Default sitemap navigation | Default content record | Content items |
|---|---|---|---|
| An authenticated **public user** can commit to a Standing Order donation from a simple webpage. This feature is not set up by default. You can add this content item to your public WCM website. | (none) | (none) | ContentTypes/Offering/Recurring Donation Commitments Public View |
| The default Thank You page that displays after a **public user** makes a Standing Order com- | (none) | @/iCore/Fundraising/Standing Order Thank You Page | (none) |

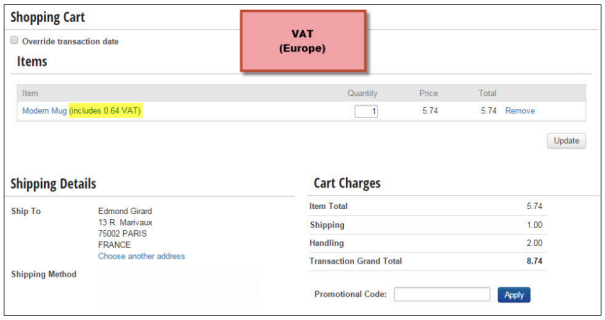
| | | | |
|---|---|---|---|
| mitment. | | | |
| **Staff** can add, update, or delete standing orders from a detailed view of the commitment. Before using this content for the first time, you must configure the content item to select a default **Payment Method**. | Contacts > Contact management > Standing Order commitments | @/iCore/Fundraising/Recurring donation commitments | ContentTypes/Offering/Recurring Donation Commitments |
| **Staff** can generate expected Standing Order payments for a given month. | Donations > Recurring donations > Expected payments | @/iCore/Fundraising/Expected payments | ContentTypes/Commerce/Recurring Donation Expected Payments |
| **Staff** can import and process | Donations > Recurring donations > Import | @/iCore/Fundraising/Import Standing Order payment file | ContentTypes/Utility/File Importer For Web Services<br>ContentTypes/Utility/File |

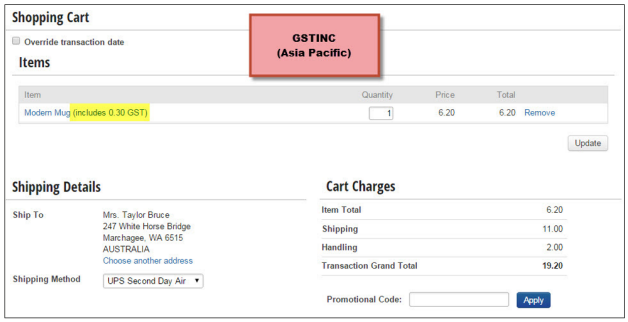
| | | | |
|---|---|---|---|
| Standing Order payment files received from your organization's bank. | Standing Order payment file | | Viewer For Web Services<br>ContentTypes/Utility/Log Viewer For Web Services |

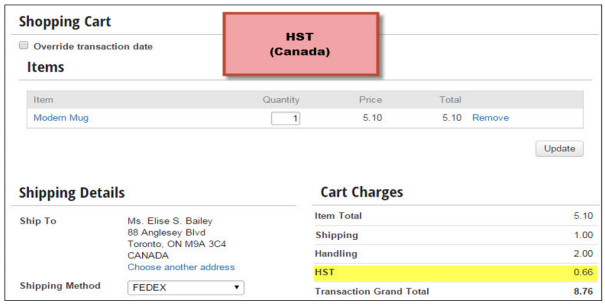
## Taxation

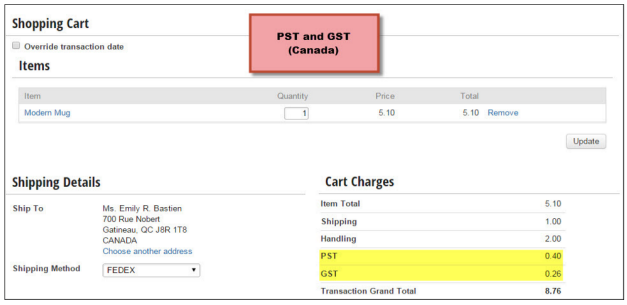
International taxation changes how shopping carts appear to users in different regions. The following image shows how iMIS displays the same product across various taxation methods:

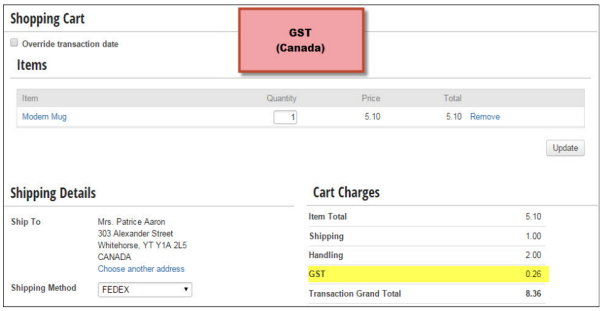


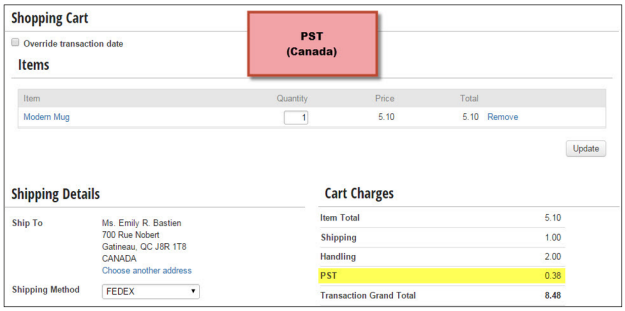



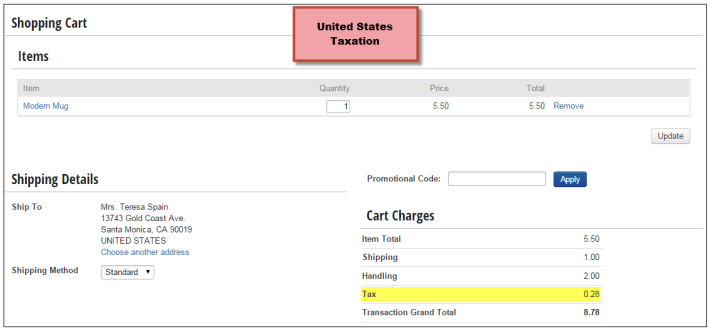



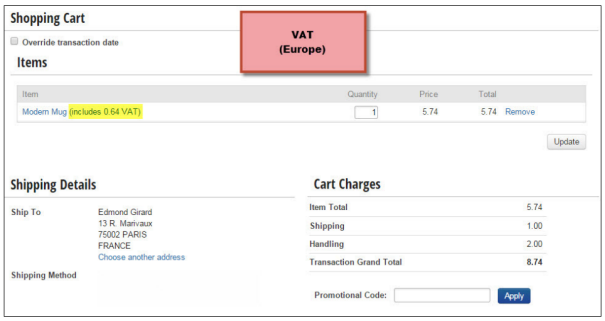

*See also*

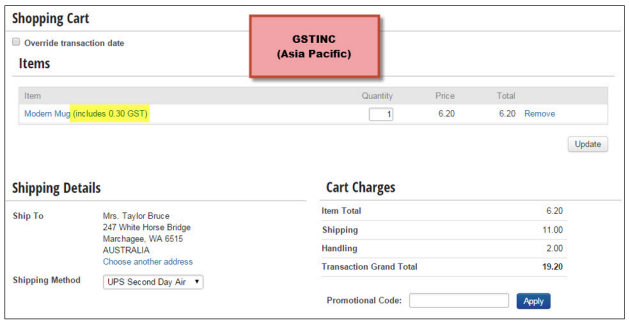
- Canadian Taxation (GST and HST)
- European Taxation (VAT)

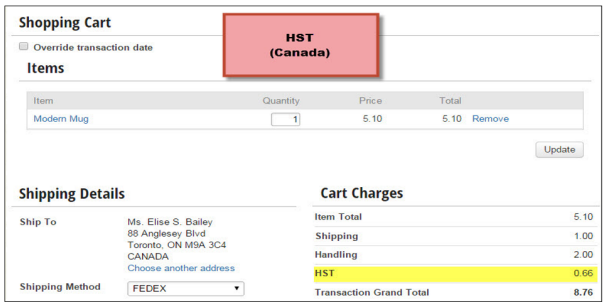
## Taxation

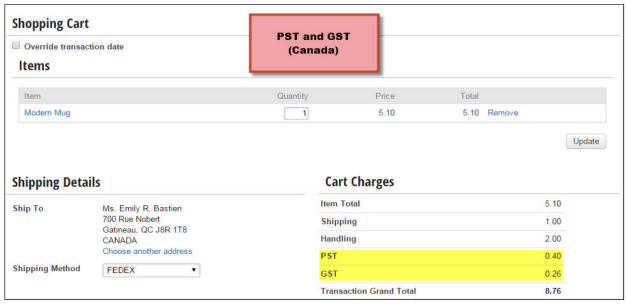
International taxation changes how shopping carts appear to users in different regions. The following image shows how iMIS displays the same product across various taxation methods:

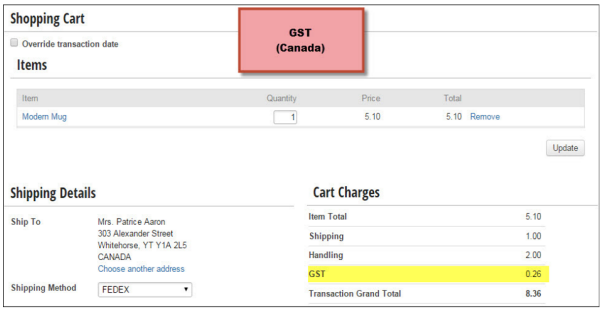


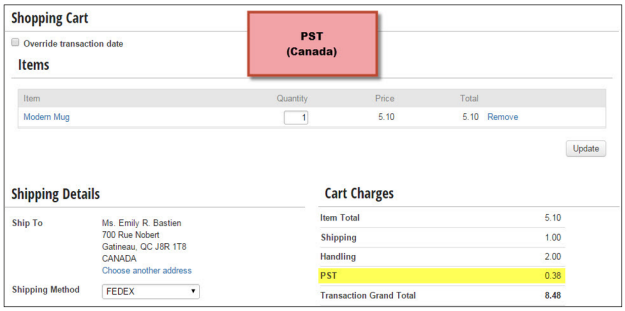




*See also*

- Canadian Taxation (GST and HST)
- European Taxation (VAT)


## Canadian Taxation (GST and HST)

iMIS supports calculation for Canadian federal taxes (GST and HST). This allows you to tailor your organization's taxation method for both Canada and specific Canadian provinces. Applicable taxes are calculated automatically based on the default Canadian tax authority and customer province.

The tax codes for the GST/HST calculation method need to be set up in iMIS before they can be used. If these tax codes are not defined on the Product_Tax table, any taxes calculated equal zero.

To implement GST/HST calculation, you perform the following tasks in iMIS:

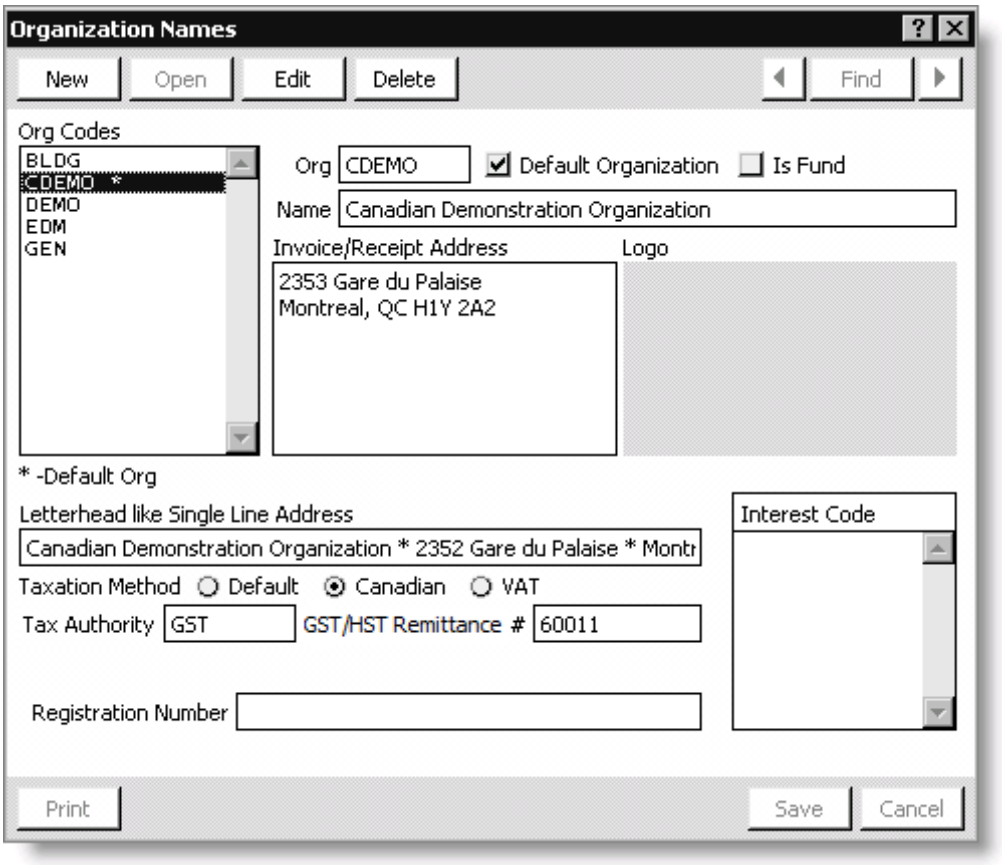
- Enable the **Canadian** taxation method for the **Default Organization**.
- Define the tax codes.
- Define the default tax authority.

> **Note:** When you enable the **Canadian** taxation method, the **VAT** or **Default** taxation method is disabled automatically for an organization. **Canadian** and **VAT** taxation methods are mutually exclusive.

### Enabling Canadian taxation for the Default Organization

The Canadian taxation method must be enabled for the **Default Organization** on the **Organization Names** window before establishing the specific tax codes used by the different modules of iMIS. After enabling the Canadian taxation method, exit and restart iMIS to implement GST or HST calculations for the **Default Organization**.

Click to view image




- **Org Codes** - Lists the codes for the available organizations.
- **Org** - (required) Enter an abbreviated, descriptive code for an organization.
- **Default Organization** (required) - Enable to identify the organization using Canadian taxation as the default organization. If the organization using Canadian taxation is not designated as the **Default Organization**, the **Canadian** taxation method will not be implemented. An asterisk displays to the right of the default organization in the **Org Codes** drop-down list.
- **Is Fund** (optional) - Enable to indicate that an organization is also a fund.
- **Name** (optional) - Enter the full name of an organization. A maximum of 60 alphanumeric characters can be entered.
- **Invoice/Receipt Address** (optional) - Enter an organization's complete address. This address is the receipt address for invoices and other correspondences. It is also used on reports where the name and address display as a block.
- **Logo** (optional) - Paste an organization's logo into this area of the window.

- **Letterhead like Single Line Address** (optional) - If an organization's letterhead is a single line address, enter it in this field. The letterhead is used on reports where the address appears in a single line, such as event confirmations
- **Taxation Method: Canadian** – Enable to use the Canadian taxation method. The following fields display when the Canadian taxation method is enabled:
- **Tax Authority** – Enter an organization's default tax authority. When defining a default tax authority for a Canadian organization, enter the Primary GST for the default tax authority.
- For non-Canadian organizations that use Canadian taxation and include the GST tax in the advertised price of all products (some organizations in Australia and New Zealand), enter GSTINC for the default tax authority.
- Press **Ctrl+L** to look up the tax authority codes defined on the **Tax codes** window (**Settings > Commerce > Set up tables > Tax codes**).
- **GST/HST Remittance #** (optional) - Enter the Canadian GST (Goods and Services Tax) number. The Canadian GST can be printed on invoices.
- **Interest Code** (optional, Fundraising) - Enter the interest code associated with each fund. Press **Ctrl+L** to find the interest codes defined on the **Interest codes** window (**Settings > Fundraising > Interest codes**). This field appears only if you are licensed for Fundraising.
- **Registration Number** (optional) - Enter the registration number associated with an organization or fund. Fundraising organizations must have a registration number (Canada) or tax identification number (United States) to claim and verify tax-exempt status. This field is applicable for the Fundraising module.

Enabling GST for the Default Organization

Do the following to enable GST for the Default Organization:

1. In Advanced Accounting Console, go to **File > System Setup** to open the **System Setup** window.
2. Click **Organization Names** to open the **Organization Names** window.
3. Add or update an organization.
   - If adding a new organization, click **New** and enter a code for the organization in the **Org** field.
   - If updating an organization, select an organization from the **Org Codes** list and click **Edit**.
4. Enable the **Default Organization** option.

5. Enable the **Canadian** taxation method option.
6. Enter the GST/HST Remittance number in the **GST/HST Remittance #** field.
7. If licensed for Fundraising, enter the registration number in the **Registration Number** field.
8. Click **Save**, close all windows, and restart iMIS for changes to take effect.

**Defining Canadian tax codes**

Canada has several types of taxes: a Harmonized Sales Tax (HST), a national Goods and Services Tax (GST), and a Provincial Sales Tax (PST). Because provincial taxes sometimes include a tax on the base national tax (a tax on a tax) in addition to taxes calculated for goods and services, set up base and primary tax authorities that allow for this extra calculation.

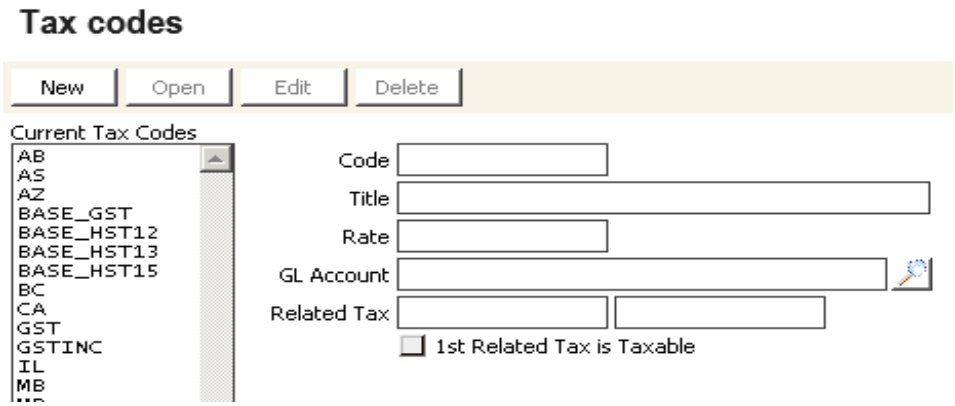
> **Note:** Verify current tax rates for Canada (http://www.cra-arc.gc.ca/tx/bsnss/tpcs/gst-tps/rts-eng.html) and Quebec (http://www.revenuquebec.ca/en/entreprise/taxes/tvq_tps/) before implementing your codes.

These are the roles of the various tax authorities:

- **BASE_GST** - Specifies the GL account for national tax and tax rate.
- **BASE_HST** - Specifies the GL account for harmonized tax and tax rate. For multiple rates, create codes for each, for example, BASE_HST12, BASE_HST13, BASE_HST15 (for 12%, 13%, and 15% respectively).
- **Primary GST** - (required) Primary GST entry, which relates back to the BASE_GST (no GL account or tax rate should be entered).
- **Primary PST** - Specifies the GL account. This is related to BASE_GST and might indicate that PST tax is also applied to the GST tax amount. Use the province abbreviation.

> **Warning!**
>
> Never use the **BASE_GST** as the primary taxation authority; rather, use **BASE_GST** as the related taxation authority to calculate the primary PST and GST. As the basis for tax calculation and tracking, the **BASE_GST** must contain the correct rate and GL account.

Click to view image




- **Current Tax Codes** - Lists the current tax codes.
- **Code** - Enter an abbreviation you want to assign to a tax code.
- **Title** - Enter the title of the current tax code.
- **Rate** - Enter the tax rate of the current tax code.
- **GL Account** - Enter the General Ledger account number assigned to the tax code. Select the lookup icon to search for an account number.
- **Related Tax** - Use these fields to enter multiple tax codes. Enter the codes for any other taxes you want to relate to the tax defined in the **Code** field.
- **1st Related Tax is Taxable** - Enable to make the first **Related Tax** field taxable. The option displays only if the **Canadian** taxation method is enabled for the **Default Organization**.
- **Print** button - Lets you print the **Tax Table Listing** report of the defined tax codes, descriptions, rates, and GL accounts.

The following table is an example of how you might define tax codes across provinces.

Click to view table

| Code | Title | Notes | Rate | GL Acct | Related tax | Taxable |
|---|---|---|---|---|---|---|
| BASE_ GST | Base GST | | 5 | GST | | |
| GST | GST | | | | BASE_ | |

| Code | Title | Notes | Rate | GL Acct | Related tax | Taxable |
|---|---|---|---|---|---|---|
| | | | | | GST | |
| BASE_HST12 | HST 12% | | 12 | HST | | |
| QC | Quebec | GST at 5%, PST at 7.5%, GST taxed | 7.5 | | BASE_GST | Enabled |

Defining BASE_GST

You will need to define a code for the base national Goods and Services Tax (GST). The BASE_GST is used as the related taxation authority when calculating the primary GST and PST. Because it is the basis for tax calculation and tracking, the BASE_GST must contain the correct rate and GL account number.

1. In Advanced Accounting Console, go to **Settings > Commerce > Set up tables > Tax codes** to open the **Tax codes** window.
2. Click **New**.
3. Define a **Code**, **Title**, and tax **Rate** for the BASE_GST tax code.
4. Enter the **GL Account** number (select the lookup icon to look up the account). Do not enter a **Related Tax** because this is the base tax.
5. Click **Save**.

Defining BASE_HST

You will need to define a code for the base Harmonized Services Tax (HST). The BASE_HST is used as the related taxation authority when calculating tax for provinces using HST. Because it is the basis for tax calculation and tracking, the code must contain the correct rate and GL account number. For multiple rates, create additional codes: BASE_HST12, BASE_HST13, BASE_HST15 (for 12%, 13%, and 15% respectively).

1. Go to **Settings > Commerce > Set up tables > Tax codes** to open the **Tax codes** window.
2. Click **New**.
3. Define a **Code**, **Title**, and tax **Rate** for the BASE_HST tax code.

4. Enter the **GL Account** number (select the lookup icon to look up the account). Do not enter a **Related Tax** because this is the base tax.
5. Click **Save**.

Defining Primary GST

Enter a code for the Primary GST. Since the Primary GST relates to the BASE_GST, no GL account number or rate should be entered.

1. Go to **Settings > Commerce > Set up tables > Tax codes** to open the **Tax codes** window.
2. Click **New**.
3. Enter a **Code** and a **Title** for the provincial tax code.

> **Note:** Leave the **Rate** and **GL Account** fields blank.

4. Enter the BASE_GST in the first **Related Tax** field.
5. Click **Save**.

Defining a provincial tax code (PST)

Enter a code for each province for which taxes will be calculated. A provincial tax code is cross-referenced as the primary taxation authority for an organization, so you will need to enter both a rate and a GL account number. In addition, the base national GST will need to be entered as a related tax.

For provinces for which the base national GST is taxable, enable the **1st Related Tax is Taxable** option. Provincial Sales Tax (PST) then will apply to the base national GST.

Some organizations might require provincial tax codes for multiple provinces:

- Organizations using Multi-Warehousing (Orders only)
- Organizations with offices in multiple provinces

> **Note:** Organizations that do not charge provincial taxes, such as Australian and New Zealand organizations and PST exempt Canadian organizations, do not need to define provincial tax codes.

Do the following define a provincial tax code (PST):

1. Go to **Settings > Commerce > Set up tables > Tax codes** to open the **Tax codes** window.
2. Click **New**.
3. Define a **Code**, **Title**, and tax **Rate** for the provincial tax code.
4. Enter a **GL Account** number (select the lookup icon to look up an account).
5. Enter the BASE_GST tax code in the first **Related Tax** field.
6. (optional) For provinces for which the base national GST is taxable, enable the **1st Related Tax is Taxable** option.
7. Click **Save**.

**Defining the default tax authority**

After the Canadian tax codes have been defined, enter the default tax authority that will be used by the default organization using Canadian taxation.

1. Go to **Settings > Membership > Set up tables > Country names** to open the **Country names** window.
2. If adding a new country:

a. Click **New**.
b. Enter the name of the **Country**.
c. Enter the country's **Mail Group**.
d. Accept the default **Address Format**.
e. (optional) If updating an existing country, click **Edit**.

3. Enable the **Use Taxation** option.
4. Click **Save**.
5. (optional) To change the address format, click **Address Layouts** to open the **Country Address Layouts** window and set up the format.
6. Close all windows, and restart iMIS for the changes to take effect.

**Defining the GSTINC tax authority (Asia-Pacific)**

The GSTINC tax code is a special tax authority for clients in countries other than Canada (notably countries located in the Asia-Pacific region) that use the Canadian taxation method for calculating taxes and also include the GST tax in the advertised unit price of products and events.

The GSTINC tax authority assumes a product's advertised price already includes applicable taxes. When the GSTINC tax authority is applied, taxes are extracted from a product's advertised price when an order is entered. For example, a product with an advertised purchase price of 150.00 that includes a 12.5% GST tax will have a unit price of 133.33 with a sales tax of 16.67.

Both the GSTINC and Primary GST tax codes have similar functionality, and both tax codes are set up exactly the same way. The difference between the two is that GSTINC extracts calculated taxes from advertised product prices rather than calculating and adding taxes to product prices.

Defining the GSTINC tax code
Do the following to define the GSTINC tax code:

1. Go to **Settings > Commerce > Set up tables > Tax codes** to open the **Tax codes** window.
2. Click **New**.
3. Enter **GSTINC** for the tax **Code**.
4. Enter a **Title** for the GSTINC tax code.

   **Note:** Leave the **Rate** and **GL Account** fields blank.

5. Enter the BASE_GST in the first **Related Tax** field.
6. Click **Save**.

Which tax code to use as the default?
How you define the prices and taxes for your individual products determines which tax code you define as the default tax authority. Organizations within some countries calculate taxes for product prices and then add the taxes into the advertised price of the products; advertised product prices include any applicable taxes.

- If your organization's policy is to include GST tax in the advertised product price (inclusive), then set **GSTINC** as the **Tax Authority** for the **Default Organization** on the **Organization Names** window (select **File > System Setup**, and click **Organization Names**).

- If your organization's policy is to not include GST tax in the advertised product price (exclusive), then set **GST** as the **Tax Authority** defined for the **Default Organization** on the **Organization Names** window.

  > **Note:** An organization should be defined as using either **GST** or **GSTINC**. It is recommended that all Asia-Pacific pricing use the GSTINC model exclusively.

### Enabling Canadian taxation for countries

When setting up GST and PST calculations for Orders, you must enable **Use Taxation** for each country for which taxes are collected. To enable GST taxation for individual countries, enable the **Use Taxation** option on the **Country names** window.

When the **Use Taxation** option is enabled for a country, GST and PST taxes (Canadian) are calculated for orders that ship to customers within that country. If you ship orders to customers in multiple countries that use the **Canadian** taxation method, enable the **Use Taxation** option for each of those countries.

Enabling taxation for a country

Do the following to enable taxation for a country:

1. Go to **Settings > Membership > Set up tables > Country names** to open the **Country names** window.
2. If adding a new country:

a. Click **New**.
b. Enter the name of the **Country**.
c. Enter the country's **Mail Group**.
d. Accept the default **Address Format**.
e. (optional) If updating an existing country, click **Edit**.

3. Enable the **Use Taxation** option.
4. Click **Save**.
5. (optional) To change the address format, click **Address Layouts** to open the **Country Address Layouts** window and set up the format.
6. Close all windows, and restart iMIS for the changes to take effect.

### Applying Canadian taxation to Events

Canadian taxation for Events involves applying appropriate taxes to individual events and event functions. After defining GST/HST tax codes using the **Canadian** taxation selection in the **Organization Names** window, you can enter the tax codes for your individual events and event functions.

Because services are consumed in the country in which they are delivered, all customers are considered taxable. Only customers with a nontaxable status are exempt.

> **Note:** Once you register a customer for event functions designated as **GSTINC**, you cannot change that registrant's **Tax Authority** on the **Events > Register for an event > Attendee** tab until you un-register the customer from the GSTINC functions.

Assigning taxation to an event

Do the following to assign taxation to an event:

1. Ensure that the following setup tasks are complete:
   - Enable the **Canadian** taxation method for the default organization.
   - Define the **GST**, **HST**, and **PST** tax codes as needed.
   - Define the default tax authority.
2. Go to **Events > Define an event** to open the **Define an event** window.
3. Double-click the event to open it in the **Define an event** window.
4. Click **Edit**.
5. Enter the default tax authority code in the **Tax Authority** field, or select the field's lookup icon to search for a tax code.
6. **Tax by Address** is implemented for online registrations only and does not apply to Desktop registrations. This option causes the appropriate tax to be charged based on the province specified in the registrant's Preferred Shipping Address. If that is unavailable, iMIS defaults to the tax authority of the event. Registrants see the HST amounts itemized in their carts and receipts.
7. Click **Save**.

Assigning taxation to an event function

Do the following to assign taxation to an event function:

1. Go to **Events > Define an event** to open the **Define an event** window.
2. Double-click the event that uses GST taxation to open the event in the **Define an event** window.
3. Double-click the function to open the **Event Function Detail** window.
4. Click **Edit**.
5. Enable the **GST/HST** or **PST** taxable options.
6. Click **Save**.
   When a customer registers for an event function, the system will automatically calculate the tax based upon the tax options you have defined for the specific function.

**Applying Canadian taxation to Orders**

GST calculation for **Orders** involves enabling the **Canadian** taxation method option for countries and applying GST taxes to product categories, individual products, and freight and handling charges.

Freight and handling taxes are charged in addition to any other taxes that are applied to products sold in the country using GST calculation, and freight and handling taxes are calculated on both taxable and nontaxable product purchases.

Which tax authority to use?
When processing orders using Canadian taxation, the Ship to Address's country and state/province determine which tax authority is used for calculating taxes:

- If the **Use Taxation** option is enabled for the Ship to Address's country on the **Country names** window, verify whether the Ship to Address's state/province code matches a tax code defined on the **Tax codes** window:
- If a match exists, select the Ship to Address's state/province code for the order's **Tax Authority** on the **Orders** window (go to **Customer Service > Orders**).
- If a match does not exist, set the order's **Tax Authority** on the **Enter and edit orders** window to equal the **Tax Authority** defined for the **Default Organization** on the **Organization Names** window (normally, this is the tax code defined for the Primary GST).
- If the **Use Taxation** option is not enabled for the Ship to Address's country on the **Country names** window, leave the order's **Tax Authority** field blank on the**Orders** window (go to **Customer Service > Orders**). No taxes will be charged.

- For orders for which no country is defined for the Ship to Address, the assumption is that the Ship to customer shares the same home country as the organization and therefore is taxable. For a Ship to Address for which no country is defined, verify whether the Ship to Address's state/province code matches a tax code defined on the **Tax codes** window:
- If a match exists, select the Ship to Address's state/province code for the order's **Tax Authority** on the **Orders** window (go to **Customer Service > Orders**).
- If a match does not exist, set the order's **Tax Authority** on the **Enter and edit orders** window to equal the **Tax Authority** defined for the **Default Organization** on the **Organization Names** window (normally, this is the tax code defined for the Primary GST).

Before you begin

Ensure that the following setup tasks are complete:

1. Enable the **Canadian** taxation method for the default organization.
2. Define the **GST** and **PST** tax codes.
3. Define the default tax authority.

Applying taxation to a product

Do the following to apply taxation to a product:

1. Go to **Commerce > Inventory > Products** to open the **Products** window.
2. Select a product code from the list of **Current Products**.
3. Click **Edit**.
4. Enable the **Taxable (GST/HST)** or **Taxable (PST)** options.
5. Click **Save**.

Applying taxation to a product category

> **Warning!**
>
> Tax settings at the product level override those at the category level. If you enable taxes for a category but not for a product in that category, no taxes are calculated. If you disable taxes for a category but enable taxes for a product in that category, taxes are calculated.

Do the following to apply taxation to a product category:

1. Go to **Settings > Commerce > Set up tables > Product categories** to open the **Product categories** window.
2. Select a product category from the list of **Current Categories**.
3. Click **Edit**.
4. Enable the **Taxable (GST)** or **Taxable (PST)** options.
5. Click **Save**.

Applying taxation to freight and handling charges

Do the following to apply taxation to freight and handling charges:

1. Go to **Settings > Commerce > Configure commerce options** to open the **Configure commerce options** window.
2. Click **Add-on Charges** to open the **Add-on Charges** window.
3. Click **Edit**.
4. Enable the **Apply Sales Tax to Freight Charges** and **Apply Sales Tax to Handling Charges** options.
5. Click **Save**.

**Modifying reports for Canadian taxation**

Certain standard reports and invoices must be edited so that Canadian taxation information (such as GST and HST) displays on a report. For Orders or Events invoices, you must clone the invoices and modify the parameters to show the Canadian tax rates on the invoice.

1. Go to **Utilities > Report Specs** to open the **Report Specifications** window, from which you can clone and change the following reports:

- **MEETING – Confirmations – Confirmation Letter** (Omnis only)
- **MEETING – Invoices – Print Invoices** (both)
- (Simple Order Entry only) **SIMPLEOE – Invoices – Print New Invoices** (both)
- **Order-Invoices-Activity Menu Items** (both)

2. Scroll and select the report.
3. Click **Clone**.
4. Tab to the **Title** field.
5. Add a period in front of the title.

> **Note:** Putting a period at the beginning of the title places the report first in the alphabetical report category, making it the default report used.

6. In the **Title** field, modify the title to distinguish it from the original.
7. Click **Parameters** to open the **Detail Report Parameters** window.
8. In the **Parameters** text box, enter the text and field contents (press **Enter** after each line). The information you enter in the **Parameters** text box will depend on your organization's specific tax setup. The following text and field contents are examples of the **PST** as the tax authority and the **GST** as the first related tax:

```
Total PST:[Orders.TAX_1]
Total GST/HST:[Orders.TAX_2]
GST/HST Remittance Number:[Org_Control.GSTRemitNumber]
```

> **Note:** If the `<<Message>>` line displays in the **Parameters** text box, do not delete it: doing so prevents the lines following it from printing on the invoice.

> **Note:** `Tax_1` will print the tax calculated for the tax authority entered. `Tax_2` will print the first **Related Tax**. `Tax_3` will print the second **Related Tax** from the **Tax Codes** table for the **Tax Auth** used on the order. `Org_Control.GSTRemitNumber` will display the **GST Remittance #** on the **Organization Names** window.

9. Click **Save**. For invoice reports, the following information displays at the bottom of the invoice:

- Total PST
- Total GST/HST
- GST/HST Remittance

## European Taxation (VAT)

Value-Added Tax (VAT) is a tax levied on goods and services sold within the European Union (EU). iMIS supports VAT, so you can tailor your organization's taxation method for the EU member countries in which you have operations. Applicable taxes then will be calculated automatically based on a customer's country.

To charge VAT, you multiply the net price by the VAT rate (to calculate how much VAT to charge) and then add that amount to the net price to give the gross (inclusive) price:

> Net price = £100
> + VAT due at 20% = £20
> = Gross price = £120

### When is VAT included in the price?

Almost always. By law, the prices advertised in retail shops must include VAT, so no additional tax is charged at checkout. Products advertised in magazines, catalogs, websites, price lists, and other literature may be aimed at the public, businesses, or both. By law, if they are meant only for the public, then prices must include VAT. If they are meant for both public and business, then VAT-inclusive prices are usually given.

**Exception** – Prices quoted between organizations (companies) are often VAT exclusive, because VAT might be claimed back by a company and so should not affect the budget.

### When is VAT shown on bills and receipts?

Most retail prices on bills and receipts include VAT, so it is not shown separately. However, some might list the VAT as a separate line, just to report how much tax is included in the price. Invoices from VAT-registered suppliers (like builders) must show a separate amount for VAT, as well as the VAT Registration Number of the business.

To specify whether you want VAT-inclusive or VAT-exclusive pricing, you enable a setup option. See Configuring VAT accounting options.

### Configuring iMIS for VAT

> **Note:** VAT has a separate license key. You must be licensed for VAT to enable it as a taxation method.

Implement your VAT configuration in the following order:

1. Enabling VAT for the default organization – Gives you access to the VAT options in iMIS.

   > **Note:** Enabling VAT automatically disables the **Default** or **Canadian** taxation method for an organization. The VAT and Canadian taxation methods are mutually exclusive.

2. Defining VAT and intrastate country codes – Lets you verify that the codes are correct for your needs before you do any configuration based on this table.
3. Defining VAT tax codes – Lets you set up the tax codes that you need iMIS to use. If these tax codes are missing from the **Product_Tax** table, any taxes calculated equal zero.
4. Configuring financial entities for VAT – Lets you set company information (such as registration codes and numbers) for each organization that will collect VAT.
5. Setting up Company Flow Down for VAT – Enables **VAT** tab data for the company contact to flow down to company members.
6. Configuring VAT accounting options – Lets you select options for calculating taxability and including VAT in pricing and fees.
7. Defining VAT Rules for Events – Lets you add special rules for your virtual and other-country events.
8. Verify that the **Default country** for your website (in the Staff site, go to **Settings > Contacts > General**) matches the **VAT Country** you selected for your **Default Organization** (go to **File > System Setup > Organization Names**).

   Enabling VAT for the Default Organization

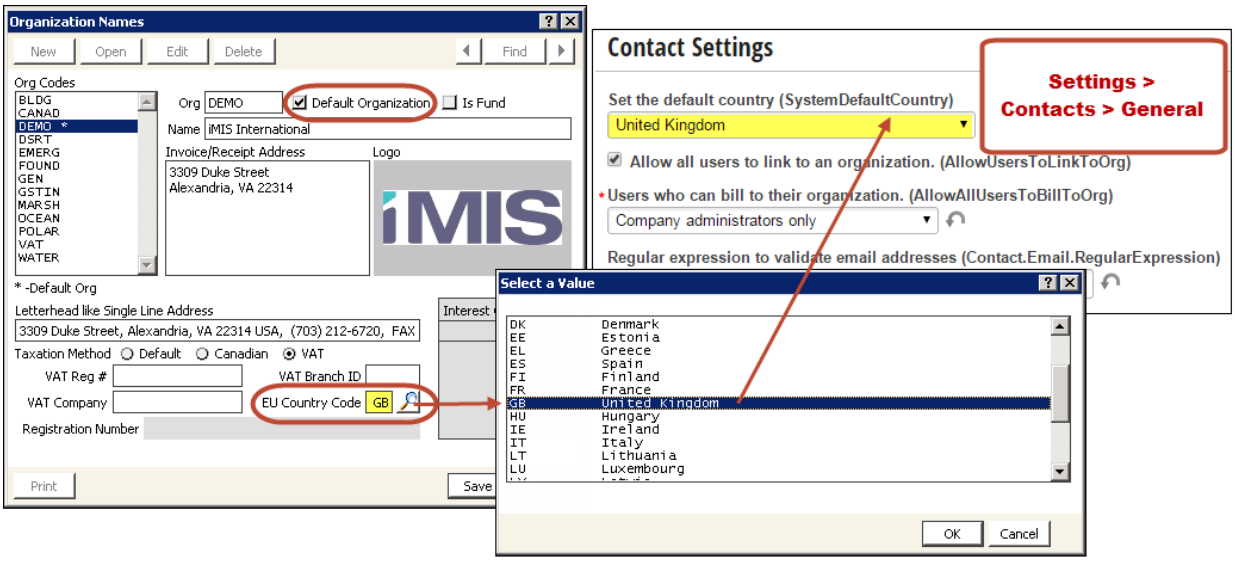
   Before you can configure iMIS to handle VAT for your organization, you must select **VAT** as a **Taxation Method** for your **Default Organization** on the **Organization Names** window. After that, you can create the specific VAT tax codes used by the different areas of iMIS. After enabling the VAT taxation method, be sure to restart iMIS for the change to take effect.

   > **Note:** VAT has a separate license key. You must be licensed for VAT to enable it as a taxation method.

   Do the following to enable VAT for the **Default Organization**:

1. In the Advanced Accounting Console, go to **File > System Setup > Organization Names** to open the **Organization Names** window:
- If adding a new organization, click **New** and enter a code for the organization in the **Org** field.
- If updating an existing organization, select an organization from the **Org Codes** list and click **Edit**.
2. Enable the **Default Organization** option.
3. Enable the **VAT** taxation method option.
4. Click **Save**, close all windows, and restart iMIS for the changes to take effect.

Click to view image




- **Default Organization** (required) – Enable to identify the organization using VAT as the default organization. If the organization using VAT is not designated as the **Default Organization**, the **VAT** taxation method will not be implemented. An asterisk displays to the right of the default organization in the **Org Codes** list.
- **Taxation Method: VAT** (Displays only if you are licensed for VAT) – Enable to use the VAT taxation method. The following fields display when the **VAT** taxation method is enabled:
- **VAT Reg #** – Enter the numeric part of an alphanumeric VAT number. Length and structure will vary depending on country. For example, **FR 224 852 654 12** is used in France and **BE 422 544 865** is used in Belgium.
- **VAT Branch ID** (optional) – Enter the VAT branch ID for an organization.

- **VAT Company** (optional) – Enter the VAT company for an organization.
- **VAT Country** – Enter the alphabetic part of an alphanumeric VAT number that corresponds to the EU member country of the organization. Select the lookup icon to look up a country from those defined in the **Country Names** table.

  > **Note:** If the lookup populates the wrong **VAT Country** code, you first need to fix the entries in your **Country Names** table and then update the entry here.

  The country that you set for your **Default Organization** must match the **System Default Country** that you specify for your website. See General Contact Settings for more information.

- **Registration Number** (optional, Fundraising) – Enter the registration number associated with an organization or fund. Fundraising organizations must have a registration number (Canada) or tax identification number (United States) to claim and verify tax-exempt status.

  Defining VAT and intrastate country codes

  The VAT country code is a two-character code assigned to each European member country. The intrastate code is a country code that is used on intrastate reports. These reports list the transactions between an organization and customers from EU member countries.

  > **Note:** Both the VAT country code and the intrastate code must be defined in iMIS for EU member countries.

  Do the following to define a country code:

1. In the Advanced Accounting Console, go to **Settings > Membership > Set up tables > Country names** to open the **Country names** window.
2. Click **New**.
3. Enter the name of the country in the **Country** field.
4. Enter the country's **Mail Group**.
5. Accept the default **Address Format**.

> **Note:** To set up a different address format, click **Address Layouts** after completing this procedure to open the **Country Address Layouts** window and set up the format.

6. Enter the country code in the **Country Code** field. This code is used for VAT.
7. Enter the country code in the **ISO 3 Digit Code** field. This code is used for reporting purposes.
8. Click **Save**, close all windows, and restart iMIS for the changes to take effect.

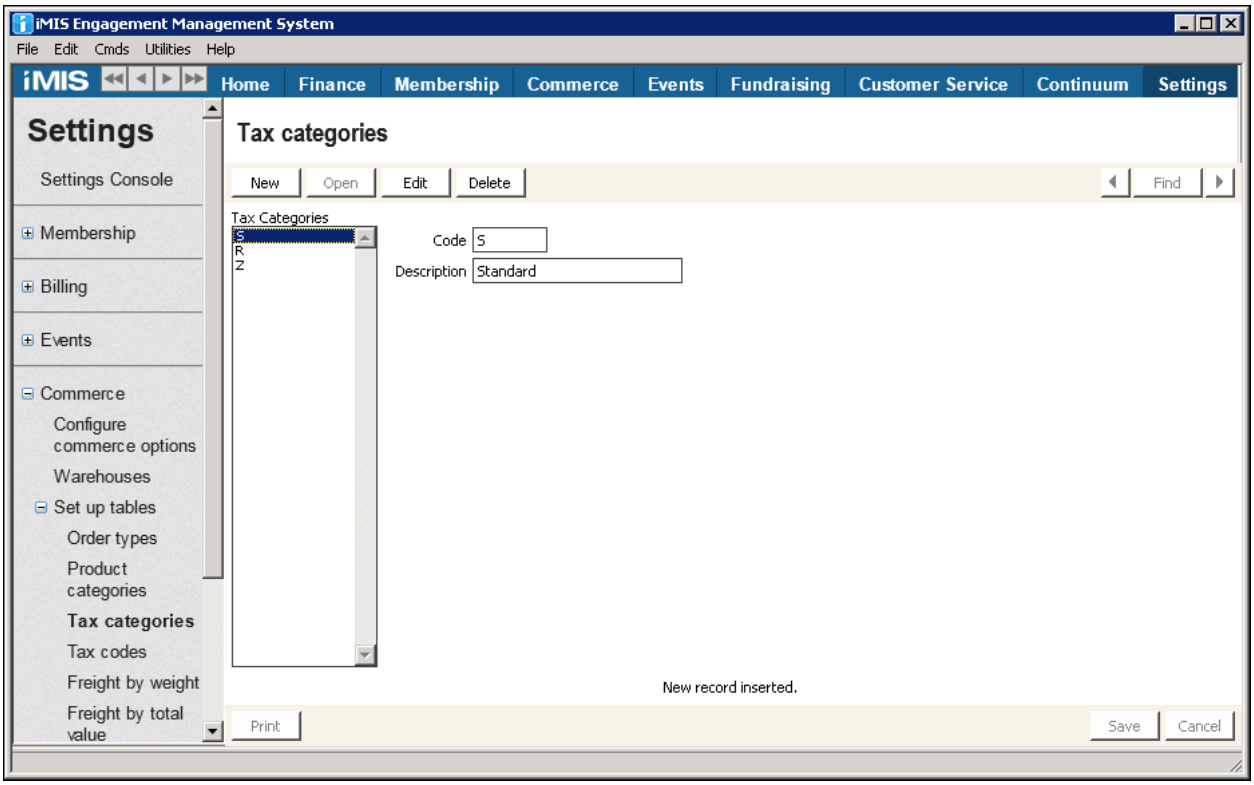
Defining VAT tax categories

You must define the appropriate tax categories before you can define products and functions that use Tax by customer location taxation logic. The **Tax Categories** window is used for defining tax categories.

> **Note:** Tax categories are only applicable when using the VAT taxation method.

> **Note:** Tax categories can be used to differentiate between standard rated, reduced rated, and zero rated products.

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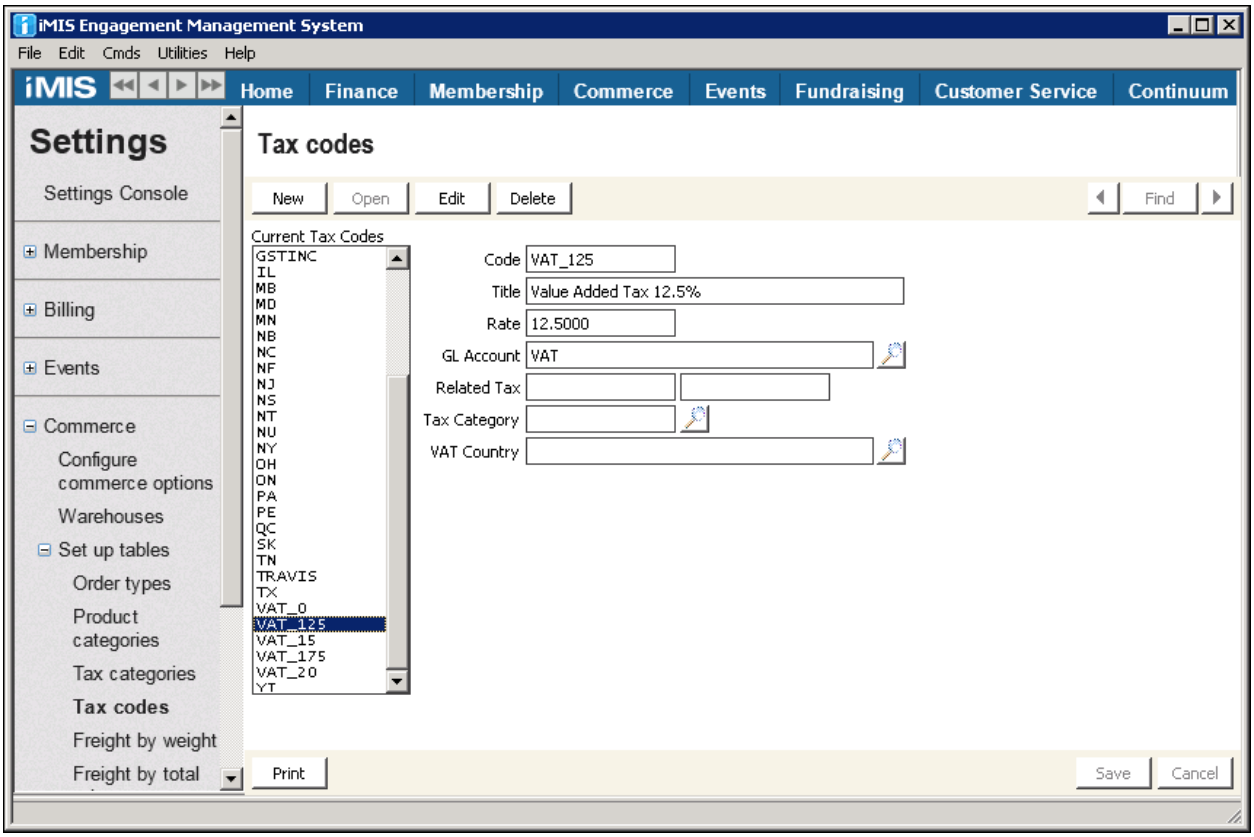



- **Tax Categories** - List of defined tax categories
- **Code** - Enter the code for the tax category.
- **Description** - Enter the description for the tax category

Defining VAT tax codes

If you are using different VAT tax rates, you must define the different rates in iMIS before you can apply them to any type of event, product, or order. You do so in the **Set up tax codes** window. The following sections include examples of various VAT tax codes.

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- **Current Tax Codes** - Lists the current tax codes.
- **Code** - Enter the abbreviation you want to assign to the tax code.
- **Title** - Enter the title of the current tax code.
- **Rate** - Enter the tax rate of the current tax code.
- **GL Account** - Enter the General Ledger account number assigned to the tax code. Select the lookup icon to search for an account number from the GL Account general look-up/validation table.
- **Related Tax** - Use these two fields to enter multiple tax codes. Enter the codes for any other taxes you want to relate to the tax defined in the **Code** field.

Defining VAT-exempt tax codes

Different events and products might require defining different VAT rates:

1. In the Advanced Accounting Console, go to **Settings > Commerce > Set up tables > Tax codes** to open the **Tax codes** window.
2. Click **New**.
3. Enter **VAT_EXEMPT** in the **Code** field.

4. Enter a **Title** for the **VAT_EXEMPT** tax code.
5. Enter the **GL Account** number (select the lookup icon to look up the account).
6. Click **Save**.

Defining VAT zero-percent tax codes

Do the following to define a VAT zero-percent tax code:

1. In the Advanced Accounting Console, go to **Settings > Commerce > Set up tables > Tax codes** to open the **Tax codes** window.
2. Click **New**.
3. Enter a **Code** for VAT zero-percent.
4. Enter a **Title** for the VAT zero-percent tax code.
5. Enter the **GL Account** number (select the lookup icon to look up the account).
6. Click **Save**.

Defining VAT percentage tax codes

Do the following to define a VAT percentage tax code:

1. In the Advanced Accounting Console, go to **Settings > Commerce > Set up tables > Tax codes** to open the **Tax codes** window.
2. Click **New**.
3. Enter a **Code** for the VAT tax code.
4. Enter a **Title** for the VAT tax code.
5. Enter a tax **Rate** for the VAT tax code.
6. Enter the **GL Account** number (select the lookup icon to look up the account).
7. Click **Save**.

Configuring financial entities for VAT

After defining the country codes, enter the country code and additional VAT information for one or more financial entities (organizations) on the **Organization Names** window:

1. In the Advanced Accounting Console, go to **File > System Setup > Organization Names** to open the **Organization Names** window.
2. Select an organization enabled for VAT taxation from the **Org Codes** list.
3. Click **Edit**.
4. Enter the **VAT Reg #** to be used to collect VAT.
5. (optional) Enter a value in the **VAT Company** field.

6. (optional) Enter the **VAT Branch ID**.
7. Enter the **EU Country Code**, or select the lookup icon to look up the country on the **Country_Names** table.

   > **Note:** The VAT country code must be set up on the **Country names** window to select it at this time.

8. Repeat for any additional financial entities (organizations) as needed.
9. Click **Save**, close all windows, and restart iMIS for the changes to take effect.

Setting up Company Flow Down for VAT

You can enable **User Defined Company Flow Down** in iMIS Desktop for the **VAT Reg Number**, **VAT Country**, and **VAT Exempt** fields on the VAT tab if both of the following are true:

- Your iMIS database includes both Company and Individual customer types
- The customers of a company are linked to the company record in Customer Management

Company flow down is useful for pre-populating related entries with common information (such as Main Address, County, and Telephone) and other additional user-defined company flow down fields:

1. In the Advanced Accounting Console, go to **Settings > Membership > Configure Membership Options**.
2. Click **Advanced** to open the **Customer Setup – Advanced** window.
3. Click **Edit**.
4. In the **User Defined Company Flow Down** field, enter the fields to display. For example, to display all VAT fields, enter:

   ```
   Name_Fin.VAT_REG_NUMBER,Name_Fin.VAT_COUNTRY,Name_Fin.USE_VAT_TAXATION
   ```

5. Click **Save**.

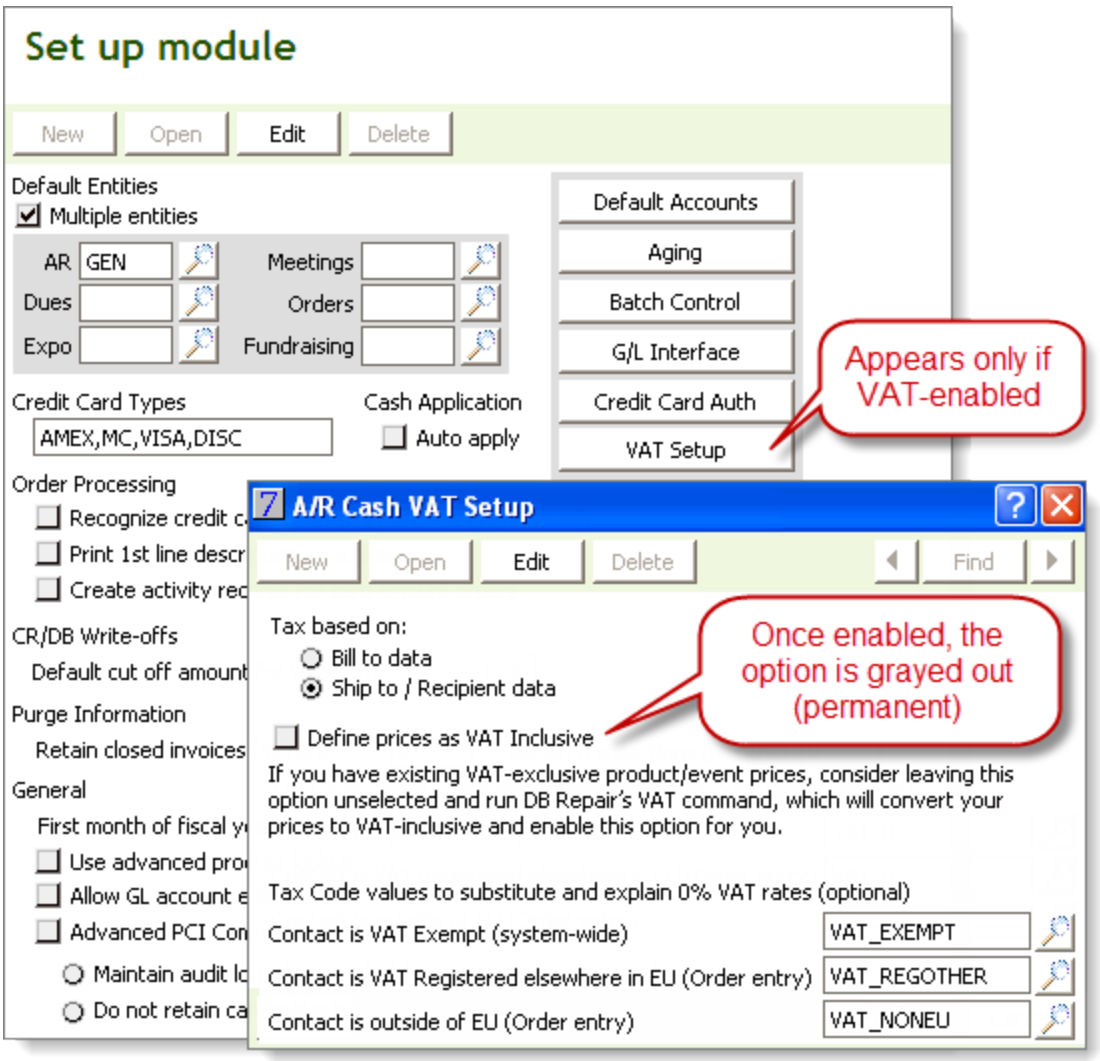
Configuring VAT accounting options

Because organizations differ in how they need to charge VAT and handle pricing, iMIS gives you several global options that affect tax calculation and pricing of your order processing and events.

> **Note:** For technical discussions and examples of VAT issues and scenarios, go to iMIS Community: http://www.imiscommunity.com/value_added_taxation_vat.

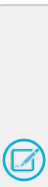
If your default organization is configured for VAT, then you see a **VAT Setup** button to the right of the Finance console accounting options.

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- **Tax based on** – Lets you change the method for evaluating taxation:
- **Bill to data** – Applies VAT based on the Bill to contact's location and VAT tab settings.
- **Ship to / Recipient data** (default) – Applies VAT based on the Ship to location and the recipient's **VAT** tab settings. This supports point-of-sale requirements for which contacts

have different Ship to addresses or make purchases intended for others, such as a manager registering an employee at a different site.

- **Define prices as VAT Inclusive** (non-reversible) – When enabled, all system-defined prices for taxable products, events, shipping, and handling are considered VAT Inclusive. This means that you can define products and registration fees with the gross (tax-included) amounts that you will advertise to your members and the public. Once you enable VAT-inclusive pricing, the option appears grayed out, because the setting is permanent.
- 

  **Note:** To upgrade quickly to VAT Inclusive pricing, back up your database and run the DB Maintenance standalone utility, whose **VAT** tab performs a one-time conversion of your VAT-exclusive product prices and registration fees to be VAT-inclusive. Once your data is converted, the command enables the **Define prices as VAT Inclusive** setting for you.

- **Remaining VAT Exclusive** – Because some organizations need to handle order and registration prices as VAT-exclusive (such as for B2B sales), iMIS allows you to remain VAT exclusive. In this mode, all of the prices you define or override for events, products, freight, and handling are net amounts that exclude the VAT component, and iMIS adds the VAT separately during product ordering and event registration in Desktop.
- **VAT-inclusive under the hood** – Even though VAT-exclusive pricing appears the same as before, all order and registration pricing is now saved as VAT-inclusive. That is, being configured to remain VAT Exclusive just controls how you see and enter the data, converting your net amounts to and from the underlying VAT-inclusive amounts dynamically.
- **Upgrading VAT-exclusive order data** – Because iMIS now stores all order and order line amounts as VAT-inclusive, DB Upgrader takes care of updating all of your existing order data to be consistent with your new order data. Flags on the record ensure that the update occurs only once, and your original data is backed up (**Orders_BAK** and **Order_Lines_BAK**). This universal change to storing order amounts as VAT-inclusive is unrelated to whether you enable **Define prices as VAT Inclusive**.
- **VAT-inclusive public prices** – Even if you use VAT-exclusive pricing, the cart on your website will show your shoppers VAT-inclusive product prices and shipping/handling fees

(if you enable taxing when defining add-on charges), to comply with sales tax rules. Order data is always stored VAT-inclusive.

- **Tax Code values to substitute and explain 0% VAT rates** (optional) – If you populate them, these optional fields help you document the reason for VAT exemptions. The look-up lets you select from your existing zero-rated VAT tax codes to specify ones to globally substitute as reason codes for each of three situations:
- **Contact is VAT Exempt**
- **Contact is VAT Registered elsewhere in EU**
- **Contact is outside of EU**

  In the same way, Event VAT Rules also let you select a **Substitute Tax Code** for any rule that prevents taxation (see Defining VAT Rules for Events). These codes allow you to report and document tax exemptions as required.

Taxation based on Bill To versus Ship To

The **Tax based on** options determine when iMIS does not charge VAT:

| Bill to data | Ship to / Recipient data |
|---|---|
| ■ Billing address is outside of the EU<br>■ Billing contact is VAT Exempt<br>■ Billing contact is VAT registered in a different EU country from the order's financial entity | ■ Shipping address is outside of the EU<br>■ Recipient contact is VAT Exempt<br>■ Recipient contact is VAT registered in the same country as the shipping address, and the shipping address is a different EU country from the order's financial entity |

Definitions:

- All orders have an associated financial entity, defined through **System Setup > Organization Names**. Each financial entity specifies a **VAT Country**.
- **VAT Exempt** means having the **VAT Exempt** option enabled for a contact.
- **VAT registered** requires having a **VAT Registration Number** specified for a contact. If so, whether a contact is VAT registered then depends on the tax method and the value in **VAT Country**:

- **Bill to Data** – If **VAT Country** is blank, the contact is VAT registered in the VAT Country of the order's financial entity. (Exception: Web orders honor the original iMIS VAT implementation by first trying to establish the order's financial entity from product lines.)
- **Ship to / Recipient data** – If **VAT Country** is blank, the contact is not VAT registered. The following table shows how VAT taxes apply to orders according to each **Tax based on** setting. You can substitute your EU countries for the ones used here (**GB** - Great Britain, **BE** - Belgium).

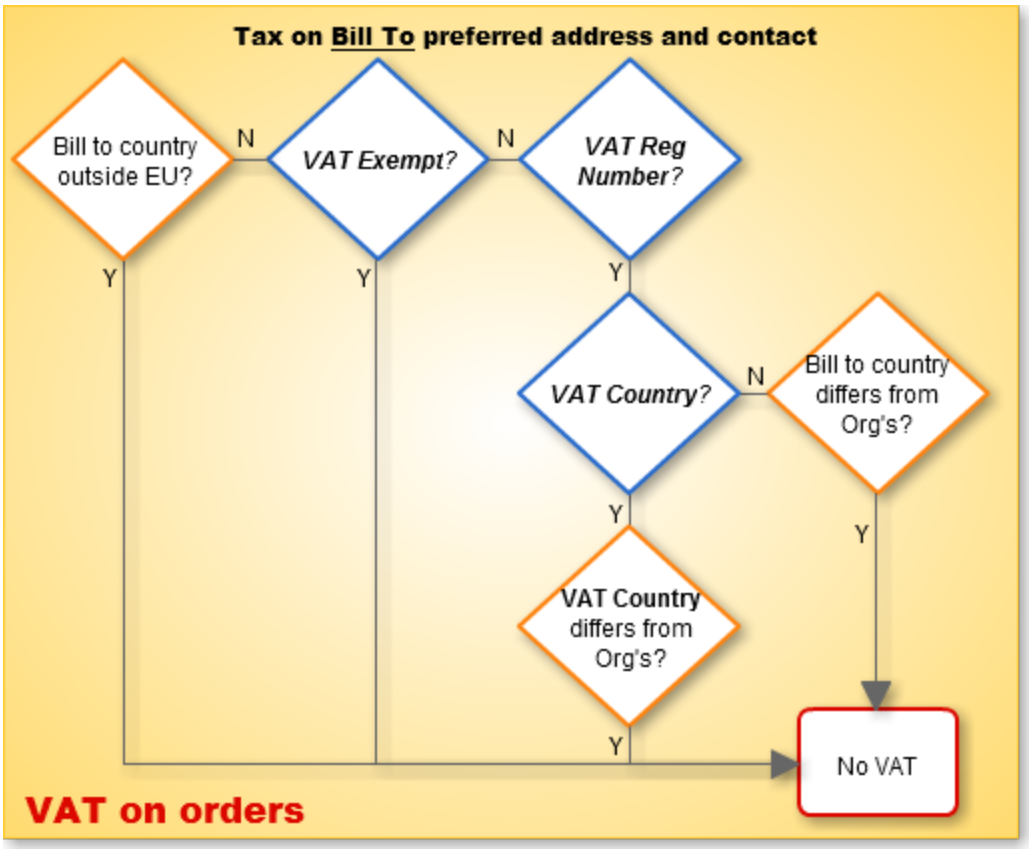
| **VAT Country of (*VCO*):** | | | | | **Taxability tests:** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Default Org | BillTo | ShipTo | Contact | | Shipping outside EU? | Contact is VAT Exempt? | Contact has Registration Number? | VCO Contact differs from Default org? | VCO Contact matches Ship To? | | **Bill To method** | **Ship To method** |
| * | * | * | * | | **Yes** | – | – | – | – | | No Tax | No Tax |
| * | * | * | * | | No | **Yes** | – | – | – | | No Tax | No Tax |
| * | * | * | * | | No | No | **No** | – | – | | Tax | Tax |
| * | * | * | * | | No | No | Yes | **No** | – | | Tax | Tax |
| GB | GB | BE | BE | | No | No | Yes | Yes | **Yes** | | No Tax | No Tax |
| GB | BE | BE | BE | | No | No | Yes | Yes | **Yes** | | No Tax | No Tax |
| GB | GB | GB | BE | | No | No | Yes | Yes | **No** | | No Tax | Tax |
| GB | BE | GB | BE | | No | No | Yes | Yes | **No** | | No Tax | Tax |

How taxation methods use the VAT information on a contact's record

The **VAT** settings on each contact's record affect when VAT is applied:

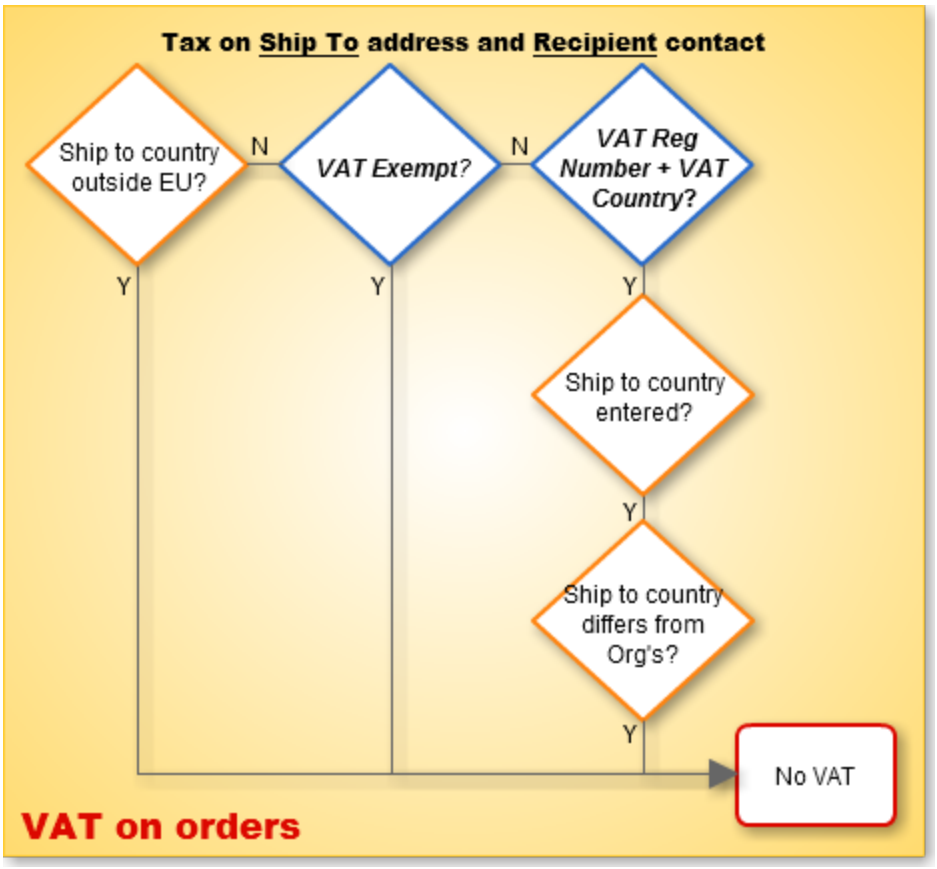
In **Finance > Options > Configure accounting options**, the **VAT Setup** section lets you choose to calculate taxes by **Ship to / Recipient data** (see Taxation based on Bill To versus Ship To). The following diagrams show the essential differences in how the two methods use each contact's **VAT** values.

Click to view image




If the Bill to contact has no Preferred Billing country, iMIS assumes it is the country of the order's financial entity.

Click to view image




If the order has no shipping country, iMIS assumes it is the country of the order's financial entity.

iMIS calculates VAT based on Ship to just as Amazon.co.uk does, with two exceptions:

- iMIS allows each customer to supply VAT registration for one country only.
- iMIS cannot change rates based on the country to which an item is shipped.

Defining VAT Rules for Events

To comply with Place of Supply requirements, you can use the **VAT Rules** table to define when not to charge VAT tax on taxable functions. These rules have limited scope: they only apply to taxable functions of VAT-enabled events that have a VAT Rule specified in the event's definition. These special rules are optional, and you do not need these rules at all unless your organization faces one of these situations:

- **You hold online (virtual) events** – The new Place of Supply rules have requirements that apply to online events, as these specifically fall into the new **General Rules** (under Article

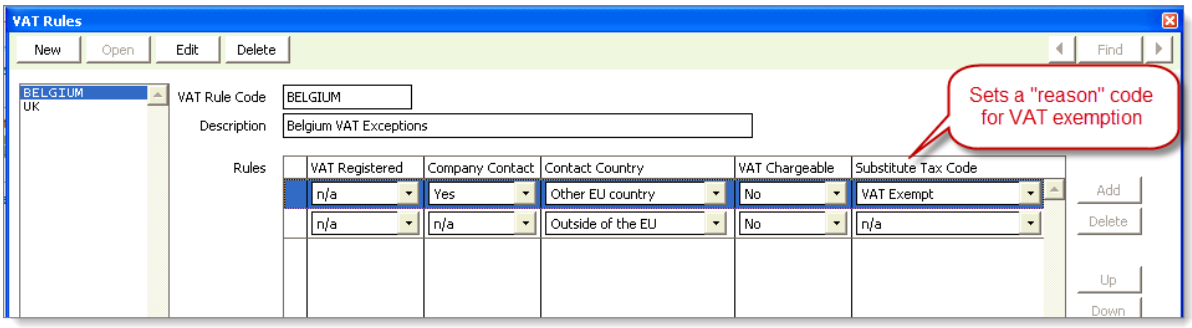
44 and 45).

- **You hold in-person events in another EU country** – If you hold an event in another EU country that has different guidelines for when to charge VAT, then you need to define a new rule set.
- **Your tax advisor** determines that the default approach of charging VAT to all non-exempt registrants is insufficient.

> **Note:** Consult your tax advisor or audit firm for questions and validation of your rule sets.

You can create as many rule sets as you need to handle the situations you must support, if any. In all cases, your registrants see only confirmation that their fees include the required VAT taxes. In the Advanced Accounting Console, go to **Settings > Events**, and click **VAT Rules**.

Click to view image




- **VAT Registered** – Whether the registrant has a VAT Registration number entered.
- 

> **Note:** Include both **Name_Fin.VAT_REG_NUMBER** and **Name_Fin.USE_VAT_TAXATION** in the **User Defined Company Flow Down** list.

- **Company Contact** – A registrant whose own record or whose parent record has a member type that is defined as a **Company Record** in the **Member_Types** table.
- **Contact Country** – Refers to the country specified in the registrant's address (regardless of parent record) as determined using the VAT country codes you defined:
- **Same as place of supplier** – The registrant is in the same VAT country as the event's entity.

- **Other EU country** – The registrant is in a different EU country from the event's entity.
- **Outside of the EU** – The registrant is outside of the EU.
- **VAT Chargeable** – The **Yes** option exists for rare cases in which you need to insert a **Yes** rule to ensure a correct VAT charging situation isn't overridden by a more general **No** rule below it.
- **Substitute Tax Code** – This optional field is available only when **VAT Chargeable** is **No**. It lets you select one of your zero-rated VAT tax codes as the reason for why the situation is not taxable. For example:
- The contact is VAT Exempt
- The contact is registered in a different EU country
- The contact is outside of the EU altogether

These codes allow you to report and document tax exemptions as required.

Where do VAT rules apply?

If an event function is marked **Taxable**, VAT taxes can be charged. If the event itself also specifies use of a **VAT Rule**, iMIS determines whether to charge VAT according to your rules of exclusion.

How do rule sets work?

When a VAT event specifies a rule set, iMIS determines whether to charge the registrant VAT by testing each rule for a match. Starting with the top rule, iMIS stops only when all three conditions (whether VAT Registered, whether a Company Contact, and location) are met. If no rules are satisfied, VAT is charged as usual.

Example rule set: Online Events

| VAT Registered | Company Contact | Contact Country | VAT Chargeable |
|---|---|---|---|
| Yes | n/a | Other EU country | No |

Example rule set: Belgium events in France

| VAT Registered | Company Contact | Contact Country | VAT Chargeable |
|---|---|---|---|
| Yes | n/a | Same as place of supplier | No |
| No | Yes | Same as place of supplier | No |

Setting up entities for other EU countries

If you hold events within the EU but outside of your EU country, you might need to set up multiple entity processing for each country involved in order to keep your financial records separate. The issues are:

- Whether you hold an event in another EU country (for example, a Paris conference for your Brussels-based association)
- Whether that country has different guidelines for when to charge VAT

Do the following to set up entities for other EU countries:

1. In the Advanced Accounting Console, define the entities (see **Defining an organizational entity**) for which you need to keep separate financial records:

a. Select **File > System Setup** and click **Organization Names**.

b. Select **New** and create organizations for each additional EU country, ensuring the **Taxation Method** is **VAT** and completing the VAT fields that appear.

2. Enable multi-entity processing:

a. Go to **Finance > Options > Configure accounting options**, then select **Edit** and enable **Multiple Entities**.

b. If needed, change the default entity for **Events**.

3. Define default accounts for your entities.
4. Set up cash accounts for your entities.
5. Set up Due To/Due From processing.
6. Verify the **Default country** for the website (in the Staff site, go to **Settings > Contacts > General**).
7. When defining events that need this special VAT tracking, select your new entity codes as needed.

Defining a set of VAT Rules

Do the following to define a set of VAT rules:

1. In the Advanced Accounting Console, go to **Settings > Events**, and click **VAT Rules**.
2. Click **New**.
3. Create a **VAT Rule Code**. Add a **Description** (optional) to explain the rule set and to display in the drop-down list during Event definition.

4. Change the **n/a** (not applicable) defaults to **Yes** or **No** as needed to define the test for evaluating the taxability. The **n/a** values behave as either **Yes** or **No** in the evaluation.
5. Click **Add** to activate rows for any additional rules you need.

   **Note:** Clicking **Delete** removes only the row that is currently highlighted.

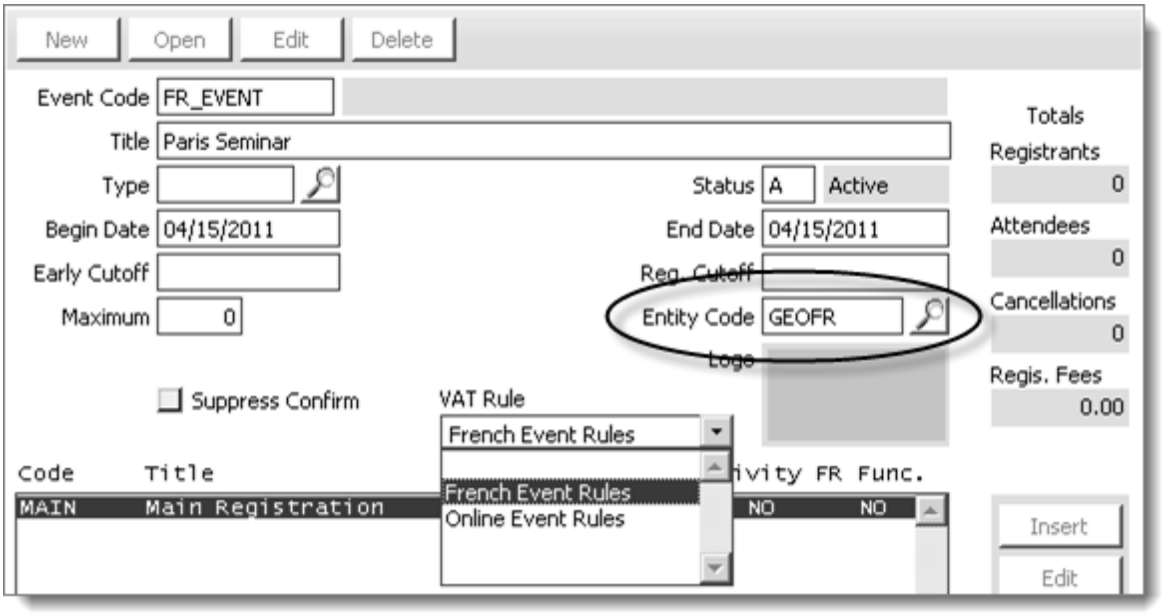
6. Use **Up** or **Down** to arrange the rules in the order you want them to evaluate, from the top.
7. Click **Save**, then close the window or select **New** to create another rule set.

Applying VAT Rules

Each event can use one set of rules that you defined for its taxable functions, but the registration process still lets you override function-level tax codes:

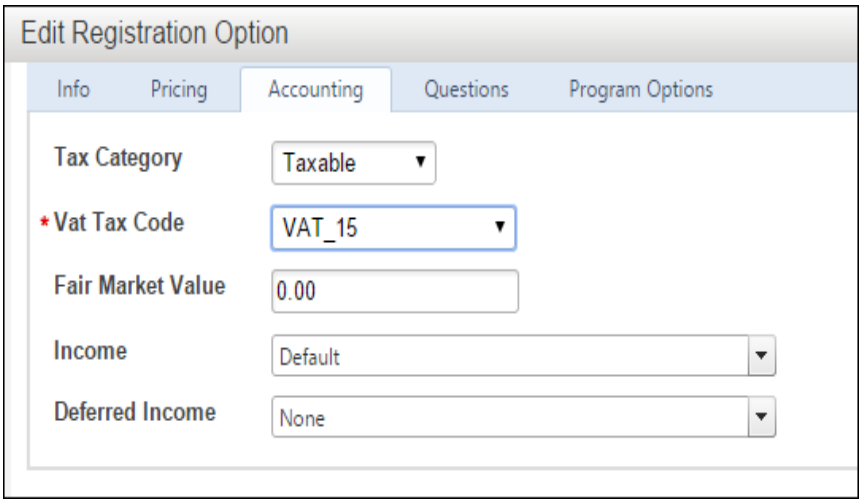
1. In the Advanced Accounting Console, go to **Events > Define an event**.
2. Click **New** or **Edit**.
3. Select the correct VAT **Entity Code** for the accounting of these transactions.
4. Apply a VAT rule set to your VAT event. Select a **VAT Rule** from the drop-down list.

   Click to view image




5. When defining each event function, enable the **Taxable** option as appropriate.

   Click to view image




6. During registration, be aware that in some cases (such as when a registrant's company is VAT Exempt), enabling **Add to master** during registration causes taxes to be recalculated on functions, changing their cost.
   If this happens, you are prompted to click **OK**, confirm the registration details, adjust the payment amount as needed, then click **Save**.

How VAT Rules test Contact Country

The tests for **Contact Country** are the most involved part of VAT Rules. Unless the selection is **n/a**, the country of the registrant's address evaluates as follows:

- **Which address is evaluated?** The test uses the country associated with the registrant's address, which appears on the Event registration **Attendee** tab (go to **Events > Register for an event**) or on the registrant's account page in the Staff site. This address defaults to the registrant's preferred mail address, but the criteria evaluation always uses the address as it appears in the user interface, including any manual address overrides.
- **Is the registrant outside the EU?** If the registrant's country is not assigned a VAT Country Code in the Country Names table, then the country is considered to be outside the EU.
- **Is the country blank?** If the registrant's country is not populated, then it is assumed to be the same as the country of the default organization. The default organization's country is established according to the VAT Country Code assigned to it.
- **Is the registrant within the EU?** The registrant's country is considered in the EU if either of the following are true:

- The registrant's country is populated and the country is assigned a VAT Country Code in the **Country Names** table.
- The registrant's country is not populated and the registrant's location is assumed to be the same as that of the default organization.
- **What is the supplier country?** If the registrant's country is determined to be within the EU, then the registrant's country is either the same as the supplier country or a different country. For this evaluation, iMIS must know what the supplier location is (normally the location from which the event is hosted). The following logic derives the EU Country to be used as the supplier location:
- If the event is assigned an entity (which should be the case if the event is being held in a country other than the home country of the organization), the supplier location is set to the VAT country code for that entity.
- If the event is not assigned an entity, then the supplier location is set to the VAT country code of the default organization.
- **Is the Registrant's country the same as place of supplier or elsewhere in EU?** Once the registrant's country is determined to be in the EU and the supplier country location is known, then this test is simple. If the VAT Country Code associated with the registrant's address matches the VAT Country Code associated with the event supplier location, then the registrant location is considered the same as place of supplier. If the VAT Country Codes do not match, then the registrant location is considered in another EU country.

Examples of VAT Rules

> **Warning!**
>
> These examples show how to define and use VAT rules. Do not take this as tax advice.

For these examples, assume you have a home base in the United Kingdom (default org has VAT enabled and VAT Country is **GB**) and you have upcoming events where your tax advisor has given different VAT treatments:

- **In-person event in UK** – All registrants (except those flagged as **VAT Exempt**), regardless of location, should pay VAT. No VAT Rule is needed; let the default VAT treatment

apply.
**Rule:** None; the VAT Rule drop-down should remain blank when the event is defined.

- **Online event** – Following the General Rule under Articles 44 and 45, the tax advisor has said that, in addition to those flagged as **VAT Exempt** (who are never charged VAT under any circumstance), all registrants who are VAT Registered and in an EU country other than that of the default organization should be excluded from VAT. All others, including those in the same country and those outside of the EU, should be charged VAT.
  **Rule:** Create a rule with a single criteria line only:

| *VAT Registered* | *Company Contact* | *Contact Country* | *VAT Chargeable* |
|---|---|---|---|
| Yes | n/a | Other EU country | No |

- **Event in France** – The French guidelines for this event state that all companies as well as those who are VAT registered and who have a French address should not be charged VAT. All others, except for those flagged as VAT Exempt, should be charged VAT.
  **Rule:** Since the guidelines allow for either a Company Contact or a contact whose VAT Registration Number is populated to be excluded, create a rule with two rows:

| *VAT Registered* | *Company Contact* | *Contact Country* | *VAT Chargeable* |
|---|---|---|---|
| Yes | n/a | Same as place of supplier | No |
| n/a | Yes | Same as place of supplier | No |

- **Event in Italy** – The Italian guidelines and tax advice for this event state that all company contacts in either a different EU Country or one outside the EU should be exempt from VAT. The VAT registration status connected to the registrant has no bearing.
  **Rule:** Since the guidelines specify only company contacts in a country other than Italy, create a rule with two rows:

| *VAT Registered* | *Company Contact* | *Contact Country* | *VAT Chargeable* |
|---|---|---|---|
| n/a | Yes | Other EU country | No |
| n/a | Yes | Outside the EU | No |

> **Note:** When defining events that are held in a country other than the home location of the organization, you must assign an entity code to the event.

### Setting up VAT for Events

VAT taxation for an event involves applying VAT to event functions and hotel rooms. After defining VAT tax codes, you can enter the tax codes for individual event functions and hotel rooms.

> **Note:** Because services are consumed in the country in which they are delivered, all customers are considered taxable.

Before you begin

1. Enable the VAT method.
2. Define the VAT codes.
3. Verify the **Default country** for the website (in the Staff site, go to **Settings > Contacts > General**).

Applying VAT to an event function

Do the following to apply VAT to an event function:

1. In the Advanced Accounting Console, go to **Events > Define an event**.
2. Double-click the event that uses VAT to open it in the **Define an event** window.
3. Double-click an event function to open the **Event Function Detail** window.
4. Click **Edit**.
5. Select the **Taxable** option to display the **Tax code** field.
6. Enter the VAT code in the **Tax code** field, or select the lookup icon to search for a tax code.
7. Click **Save**.

Applying VAT to a hotel room

If you are licensed for Hotel Room Block Management, you can apply VAT to the cost of a hotel room:

1. In the Advanced Accounting Console, go to **Events > Define an event**.
2. Double-click the event that uses VAT to open it in the **Define an event** window.

3. Click **Hotels** to open the **Hotels** window.
4. Select a **Hotel Code**.
5. Click **Rooms** to open the **Room Types** window.
6. Select a room from the list of **Room Types**.
7. Click **Edit**.
8. Select the **Taxable** option to enable the **Tax Authority** field.
9. Enter the VAT code in the **Tax Authority** field, or place your cursor in the **Tax Authority** field and press **Tab** to select a tax code.
10. Click **Save**.

### Setting up VAT for Orders

VAT taxation for **Orders** involves applying VAT to product categories, individual products, and freight and handling charges. Unless a customer has a nontaxable status, VAT freight and handling taxes are calculated on both taxable and nontaxable product purchases. Whether tax applies depends on the location of the customer relative to the organization:

- If the customer is in the same EU country, VAT applies.
- If the customer is in a different EU country but has no VAT number (private person, some types of organizations), VAT applies.
- If the customer is in a different EU and has a VAT number, VAT does not apply.
- If the customer is outside the EU, VAT does not apply.

> **Warning!**
>
> Tax settings at the product level override those at the category level. That is, if you enable taxes for a category but not for a product in that category, no taxes are calculated. If you disable taxes for a category but enable them for a product in that category, taxes are calculated.

**Best practice:** Before applying VAT tax codes to products and product categories, consult with an expert on VAT rules and regulations.

> **Note:** You can override any applied VAT taxes at order entry.

Before you begin

1. Enable the VAT method.
2. Define the VAT codes.
3. Verify the **Default country** for the website (in the Staff site, go to **Settings > Contacts > General**).

Applying taxation to a product

Do the following to apply taxation to a product:

1. In the Advanced Accounting Console, go to **Finance > Options > Set up tables > Products**.
2. Select a product code from the list of **Current Products**.
3. Click **Edit**.
4. Enable the **Taxable** option. The **Tax Code** field is displayed when the **Taxable** option is enabled.
5. Enter a VAT **Tax Code** for the product, or select the lookup icon to look up a tax code.
6. Click **Save**.

Applying taxation to a product category

Do the following to apply taxation to a product category:

1. In the Advanced Accounting Console, go to **Settings > Commerce > Set up tables > Product categories**.
2. Select a product category from the list of **Current Categories**.
3. Click **Edit**.
4. Enable the **Taxable** category option. The **Tax Code** field is displayed when the **Taxable** option is enabled.
5. Enter a VAT **Tax Code** for the product, or select the lookup icon to look up a tax code.
6. Click **Save**.

Applying taxation to a single product

Do the following to apply taxation to a single product:

1. In the Staff site, go to **Commerce > Find products**.
2. Click **Edit**.
3. On the **Accounting** tab, make the product **Taxable**.
4. Apply a tax code in the **Vat Tax Code** field.

Applying taxation to freight and handling charges

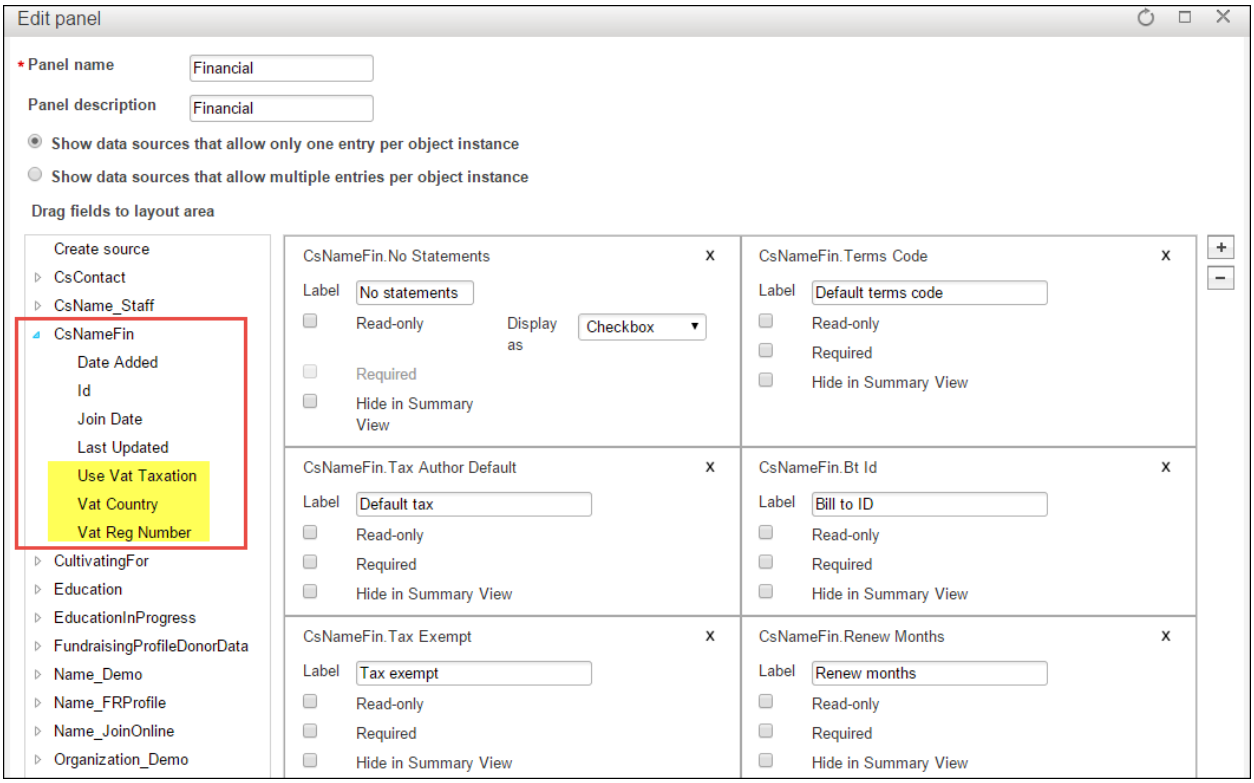
1. In the Advanced Accounting Console, go to **Settings > Commerce > Configure commerce options**.
2. Click **Add-on Charges** to open the **Add-on Charges** window.
3. Click **Edit**.
4. Enable the **Apply Sales Tax to Freight Charges** and **Apply Sales Tax to Handling Charges** options. The **Freight and Handling Tax** field displays.
5. Enter a VAT tax code in the **Freight and Handling Tax** field, or select the find icon to look up a tax code.
6. Click **Save**.

### Setting VAT data for a contact

Before entering an order for a customer, you need to enter the VAT details for the customer on the **Financial** tab on a contact's account page. This ensures that these details print on invoices.

Do the following to enter VAT details for a contact:

1. In the Staff site, go to a contact's account page.
2. On the **Financial** panel, select the gear icon. You can edit the items that are displayed on this panel.
3. Expand the **CsNameFin** source in the list.
   Click to view image




4. Drag the following fields to the layout area:

- **Use VAT Taxation** - Enable if this customer is not exempt from VAT in all cases, regardless of VAT Rules.
- **VAT Reg Number** - Enter the VAT Registration Number for the customer. The VAT Registration Number on the **VAT** tab corresponds with a customer's VAT exempt status. If a value is entered in the **VAT Reg Number** field, a customer will be considered exempt and will not be charged VAT.

> **Note:** iMIS only processes VAT Registration Numbers issued by countries within the EU. If you enter a VAT Registration Number for a country outside the EU, VAT processing will be incorrect.

- **VAT Country** - Select the VAT country from the drop-down list.

### Overriding VAT for a registrant (event attendee)

When entering an event registration, a customer's VAT details will display on the Register a customer window's Overview tab, allowing you to decide whether or not to keep the VAT defaults which you defined at the function level. This is especially useful for

international events with registrants from different countries.

1. In the Advanced Accounting Console, go to **Events > Register for an event**.
2. Select the **Overview** tab.
3. Click **New**.
4. Enter an **Event** code (select the lookup icon to look up an event code).
5. Enter the registrant's **ID** (select the lookup icon to look up an ID). The registrant's name and address information will display on the **Register for an event** window's data area. If the registrant has no record, click **Add** to go to the **Attendee** tab:

a. Enter the registrant's **First** and **Last** name.
b. (optional) To add the registrant to your iMIS database, enable the **Add to Master** option, which creates an ID.
c. Complete the registrant's information, including company, address, and phone.
d. Select the **Overview** tab.

6. Enter the **Date**. The date defaults to the batch date if Batch Control is used; otherwise, the date defaults to the system date.
7. If needed, override the **Class** code.
8. Enter the **Bill To** ID if it is different from the registrant's ID (select the find icon to look up an ID).
9. If needed, override the VAT code on the event functions the registrant selected:

a. Double-click an event function.
b. Enter the number of registrants in the **Qty** field.
c. Enter the VAT code in the **Tax Code** field (select the lookup icon to look up a tax code). The tax calculated for the function displays in the **VAT** field.

10. Click **Save**.

### Overriding VAT on an order

When entering an order, a customer's VAT details will display on the **Overview** tab of the **Orders** window, allowing you to decide whether to keep the VAT defaults which you defined at the product or product category level. This is especially useful for international organizations with customers from different countries. In addition, transaction records are not created for a zero-dollar line item.

When entering orders, VAT is charged to a customer even if the Ship to address's **Country** field is blank on the **Ship to Info** tab as long as the following are set on the **Organization Names** window:

- VAT is enabled for the Default Organization.
- VAT Country is set to a valid European country code.

Do the following to override VAT on an order:

1. In Desktop, go to **Customer Service > Orders** to open the **Orders** window. The **Overview** tab displays by default.
2. Click **New**.
3. Enter the **Order Type** (select the find icon to look up an order type).
4. Enter the **Bill to ID** (select the find icon to look up an ID). The **VAT Summary** information displays after entering the **Bill to ID**.
5. If needed, override the **Order Date**. The **Order Date** defaults to the batch date if batch control is used; otherwise, the date defaults to the system date.
6. If applicable, enter a **Purchase Order**.
7. Enter an order **Source** code (select the find icon to look up a code).
8. If needed, override the default **Shipping Method**.
9. If needed, override the default payment **Terms**.
10. If applicable, enter a percentage discount for the order in the **% Discount** field.
11. If applicable, enter a backorder **Priority** for the order.
12. Enter and modify each product:
    - Enter a **Product** code (select the find icon to open the **Product Find** window and look up a product), and press **Tab**. The **Description** field populates automatically.
    - If you need to override any of the product's defaults, double-click the product line-item to open its **Product Detail** window:
    - Enter or override the VAT **Tax Code** for the product (select the lookup icon to look up a code).
    - Override the default **Net** or **Gross** unit prices. As you change either price, the other price and the tax recalculate automatically.
    - (Multi-warehouse) If needed, override the product's default **Warehouse**.
    - Enter the product's specific order information in the available user-defined fields.

- Enter the number of products ordered in the **Quantity** field.
- If applicable, enter a percentage discount for the product in the **% Disc** field.

> **Note:** Entering a product-level discount in the **% Disc** field overrides any order-level discount entered in the **% Discount** field. However, product-level discounts are applicable for a given product only and do not affect entire order-level discounts.

- Press **Tab** to add the product to the order. The product will display in the list of **Product Line Items**, and your cursor will be in the **Product** field.

13. Click **Save** to enter the order, and process the order through the stages appropriate for the order type.

### Modifying reports and invoices for VAT

To help with VAT reporting, key reports include details about the VAT being collected for the order:

- The new **ORDER-Order Status- Order Detail Report VAT (Crystal)** report includes the customer's VAT details, such as VAT Exempt status or a VAT registration number and country. The charges at the bottom include explanation of the VAT portion, if any, including the percentage that applies and the net amount being collected.
- The **MEETING-Confirmations- Confirmation Letter (Crystal)** report shows the amount of VAT tax included in the registration fee.

iMIS ships with an invoice standard report that includes an analysis of the VAT. In order to use this report, you need to modify the invoices in iMIS:

1. Select **Utilities > Report Specs** to open the **Report Specifications** window.
2. Scroll and select the specific report you wish to modify (Omnis only):
   - Select **MEETING-Invoices-Print Invoices** to modify Event Invoices
   - Select **ORDER-Invoices-Activity Menu Items** to modify Order Invoices
   - Select a standard Omnis report
3. Click **Clone**.
4. Tab to the **Title** field, and place a period at the beginning of the title.

> **Note:** Putting a period at the beginning of the title places the report first in the alphabetical report category, making it the default.

5. Click **Parameters** to open the **Detail Report Parameters** window.
6. Change the **Rpt. File / Format** to **OEInvoiceVAT**.
7. For standard reports and Order Invoices:
   - Enter the VAT tax codes in the **Options** field. Precede each tax code by **VAT_**, for example, **VAT_EXEMPT**, **VAT_0**, and **VAT_196**.
   - For Event Invoices, do not change the **Options**.
8. Click **Save**.

### Validating VAT

iMIS does not automatically validate VAT Codes, but there are several validation options you can configure:

#### Setting VAT validation options

You can decide whether to validate VAT codes, and whether to force a user to enter a valid VAT code before proceeding:

1. In the Advanced Accounting Console, go to **Settings > Membership > Configure membership options**.
2. Click **Advanced**, and then click **Edit**.
3. Under **VAT Validation Options**, select one of the following:
   - **None** – Disables the VAT validation options
   - **Allow User to Override Validation** – The user can proceed even with a code the VAT validation process finds invalid
   - **Enforce Validation** – The user cannot proceed with a code that the VAT validation process finds invalid

#### Hyperlinking to VAT validation websites

You can hyperlink to the EU website that provides VAT validation (or any other VAT validation site). The hyperlink you set up will appear on the VAT tab on the **Manage Customers** window.

Do the following to hyperlink to VAT validation websites:

1. In the Advanced Accounting Console, go to **Settings > Membership > Configure membership options**.
2. Click **Advanced**, and then click **Edit**.
3. Under **VAT Validation Hyperlink Options**, select **Show**. Default values appear in the **Text** and **URL** fields, which you can override:

- If **Text** is blank but **Show** is selected, iMIS uses the default text **VAT Country Validation**.
- If **URL** is blank, iMIS uses the default value:

```
http://europa.eu.int/comm/taxation_customs/vies/en/vieshome.htm
```

4. Select **Save**, close all windows, and restart iMIS for the changes to take effect.

Validating VAT codes with a stored procedure

To automatically validate VAT codes, you can write a VAT validation stored procedure and attach it:

1. In the Advanced Accounting Console, go to **Settings > Membership > Set up tables > Country names**.
2. In **Current Countries**, select the target Country for the stored VAT validation procedure.
3. Select **Edit**.
4. In **VAT Country**, enter the desired country code.
5. In **VAT Validation Procedure**, enter the name of the stored procedure to run against any VAT codes entered into the system.
6. Click **Save**, close all windows, and restart iMIS for the changes to take effect.

Validating the number of VAT code characters

To automatically validate the number of characters in VAT codes entered (since code lengths vary by country), you can specify VAT code length parameters:

1. In the Advanced Accounting Console, go to **Settings > Membership > Set up tables > Country names**.
2. In **Current Countries**, select the country for which you want to set parameters.
3. Select **Edit**.
4. Enter the country code.
5. In the **VAT Validation** area of the open window, enter a **Minimum Size of VAT Number** and/or a **Maximum Size of VAT Number**.
6. To test the limits you specified, enter a value in the **Test Value** field and select **Test**.

> **Note:** If you set up a stored procedure, this will also test the value against that procedure.

7. Click **Save**, close all windows, and restart iMIS for the changes to take effect.

## Intelligent Query Architect (IQA)

The Intelligent Query Architect (IQA) is the foundation for searches, lists, and data for reporting throughout iMIS.

*See also*

- Understanding IQA
- Building a library of queries
- Defining queries
- Editing query-generated lists in iMIS
- Defining displays for users
- Finding customer records with IQA
- Developing filters
- Linking IQA results
- Hierarchical grid display
- Query examples
- Reporting in IQA

### Administering IQA

#### Getting Started with IQA

The steps to set up and use IQA include:

1. Administrator defines security permissions and global settings for queries.
2. An authorized user builds the query definition using Business Object data and/or other queries, with appropriate joins between the data. The user defines the results display or report format and stores the query in the Document System.
3. An end user selects a query and supplies any required parameters. The user runs the query and views the results in a webpage or a report.

#### Accessing IQA

In the Staff site, go to **RiSE > Intelligent Query Architect**.

> **Note:** IQA may only be accessed by an administrator or a user who is allowed to set up queries.

### Adding dynamic filters to queries

You can dynamically filter your query results using the variables described below.

> **Note:** You must enter the quotation marks where indicated when using the following variables.

- Filter by **ContactKey** and **UserKey** properties of a business object:
- "@LoggedInUser" and "@Me": Both filter by the currently logged in user.
- "@SelectedUser" and "@SubjectContact": Filters by a selected contact, such as contacts selected through On-Behalf-Of or user impersonation. These variables also honor ContactKeys sent using URL parameters. For example, set **NetContact.ContactKey** equal to "@SelectedUser".
- Filter by **ID**:
- “@SelectedID”: For authenticated users, this variable filters by a selected ID, such as contacts selected through On-Behalf-Of, user impersonation, or ID’s sent using URL parameters. For example, set **CsContact.ID** equal to “@SelectedID”.
- Filter by **date** properties:
- @Date: Filters by the current date.
- @Now: Filters by the current date and time.
- Filter by **URL parameter**:
- “@url:” Filters by a selected URL parameter, which allows queries to be called from any specified location, determined by the URL.
  For example, passing in the parameter MyId=123 in the Link from **Query 1** will allow 123 to be used as the **Value** of the filter in **Query 2**, by specifying “@url:MyId” for the filter in the second query.

### Building a library of queries

#### Best practices for building your library

- Plan for a folder structure and naming convention for queries. This will help to organize queries when multiple users are making changes and additions to queries.

- Establish a review of all queries to delete incorrect or unused queries. Consider a policy of allowing the user to copy or borrow another user's query but not to modify the original query.
- Use the **Versions** tab to track the author (based on the user's iMIS login name) and created/update dates.
- Make sure that any user defined tables have been previously published.

### Queries in the Document System

The Document System (**RiSE > Document system**) offers a complete administrative tool for managing folders, security, and storage of queries. Here you are able to implement an entire library of queries that can be used in iMIS modules to best meet your users' needs.

#### Creating a custom folder in the Document System

1. In the Staff site, go to **RiSE > Intelligent Query Architect**.
2. Select **New > Folder**.
3. Enter a folder name, for example Custom Queries.
4. (Optional) Select **Allow only the following type(s) of objects in this folder** and select the type of objects from the list.
5. Click **Save**.

## Defining displays for users

The Display options in query definitions specify which columns and fields to display, and in what order. You can use content items to define where and how you want to display the query results for your users. These content items allow you to:

- Display query results in a simple form view: **Summary Display** content item
- Merge query results into your site with whatever title, parameters, columns, labels, and sorting you need: **Query Menu** content item
- Enable exports to Word, Excel, PDF, and CSV (comma-separated values): **Query Menu** content item
- Allow users to select which query they want to view: **Query Menu** content item
- Display query results in a chart, such as a pie chart or a bar graph: **Query Chart Viewer** content item
- Display a group of product or profile images based on the results of an IQA query: **Related Items** content item

For an example of using the **Query Menu** content item for a results display, see Example: Display completed orders.

### Defining queries

IQA provides two modes for query definition: **Basic** and **Advanced**. The general steps for defining a query are the same in either mode, but additional functionality is available in **Advanced** mode. Use **Basic** mode for querying and displaying simple lists of results from one or more sources with optional filters to narrow the results. Use **Advanced** mode for more complex queries and displays.

| Basic Mode | Advanced Mode |
|---|---|
| ■ Define sources and (optional) filters<br>■ Specify display details | ■ Use calculations, such as sums and averages<br>■ Use queries in iMIS searches<br>■ Use SQL expressions in queries<br>■ Use complex filters, such as displaying only unique results<br>■ Allow or require end user to supply parameters at run time<br>■ Aggregate data and display<br>■ Assign aliases to field names for display<br>■ Link a display property to another page |

See Reporting in IQA for information about using queries for reports.

> **Note:** iMIS starts you in **Basic** mode, but it remembers the last mode you were in, even after you log out.

#### Essentials of query definition

- *Define the query mode*

  Define the query as Basic or Advanced, depending on complexity. Use Basic mode for simple queries without calculations like sums and averages or SQL expressions.

- *Name the query*

Follow a structured naming convention to make queries easier to locate. See Building a library of queries for guidelines.

- *Add source(s) for the query*
  Add one or more sources (business objects and/or queries) for the query. For example, you could set up a query based on the Contacts business object alone, or on both Contacts and Activities, or on a previous query with an additional source.
- *Use existing relationships between sources or create new ones.*
  If you have chosen more than one source for your query, there must be relationships among them. The most common relationships are used by default. However, you might need to create new ones. You can associate business objects and queries through fields that contain the same data.

  To make user-defined tables available as sources in IQA, have your system administrator publish them in **Tools > User Defined Tables**. Whenever a new custom table is added or updated, the system administrator should re-publish the tables.
- *Set filters to narrow query results*
  Use logical operators (such as equal, not equal, and between) to refine query results.
- *Select the columns to display*
  You can select the columns you want to display from the sources you have selected and the order in which you want the columns to appear.
- *Define the sorting order of the columns*
  You can order and prioritize the properties in each column in ascending or descending order.
- *Test the query*
  It is important to test the query and edit it, if necessary, to make sure the desired results are returned.
- *Modify security access to the query*
  You can modify the security on a filter to assign read, write, and run privileges.
- *Save the query to an appropriate folder*

To save a valid query, you must select at least one source and one column. If you select more than one source, the relationship between the sources must be defined. In most cases, a default relationship is inherited from your other sources.

**Tips for building queries**

- Review information on Business Object Designer to help select the appropriate objects for your query.
- Base the structure and location for your query file/folder on the needs and access levels of your users. See Building a library of queries for information and hints.
- Start with a single source object and add additional objects as needed.
- Some attributes (relations, default columns, default column order) are inherited from the sources you select. You can modify these default settings during query definition/editing.

**Defining a query (Basic mode)**

The following procedure shows how to define a new, simple query. To edit an existing query, you can follow the same procedure. In some cases, a system administrator can navigate to the webpage where the results are displayed and click Edit Source Query. See Editing query-generated lists in iMIS for more information.

If you have been granted access to an IQA folder, you can edit or create queries in that folder.

1. In the Staff site, go to **RiSE > Intelligent Query Architect**.
2. Edit a query, or select **New > Query**.
3. Select **Basic** mode from the drop down.
4. Enter a **Name** and (optional) a **Description** for the query. Do not use apostrophes (').

   **Note:** Use a naming convention that ensures that the query has a unique name. iMIS does not require a unique name.

5. Enter descriptive **Text for Screen Readers**. This text will be read by assistive technology to describe the results of your query.
6. (**Sources** tab) > **Add Source**.
   Navigate to find a business object or query to use as a source for the query. (Most business objects are located in the **Common** folder.) Select the desired source and click **OK**.

> **Note:** When you add a source more than once, the system automatically appends a numeric value (beginning with the number 1) to the second and subsequent sources to distinguish between the sources. For example, if you add the Contact business object three times in order to set up a variety of relationships, the instances would be labeled Contact, Contact1, and Contact2.

7. (optional) Select an additional source and click **OK**. Use the up and down arrows to reorder the data sources as needed.
   If you select more than one source, you must define the relationships among the sources. Most sources have a common relationship as a default. Use the default, choose the desired relation from the list, or select **Custom** from the drop-down list to define a new one.

8. (optional) (**Filters** tab): define the filtering rules:

- Select the **Property** to be compared.
- Select the type of **Comparison**, such as **Equal**, **Between**, or **Empty**. Enter the **Value** or select a date for comparison.
- Click **+** to add the filter.
  - When you select **Between**, the **Value** column changes to display two fields with the word "and" between them. The specified values are inclusive.
  - The pattern comparisons (**Contains**, **Not Contains**, **Starts With**, **Ends With**, and so on) use a simple text field even for a **Property** that normally contains a discrete drop-down list of values.
  - The **Contains** comparison type performs a string comparison to find one string within another string. A partial match (for example, only a portion of a word) is required.
  - Enter multiple values for a pattern comparison (**Contains**, **Not Contains**, **Starts With**, and **Ends With**) by separating each value with a comma and in quotes. For example, "D","R".
  - Click the calendar icon next to any **Date** field to select a date. If you need to specify a specific time on the selected date, first enter the time in the **Date** field, using 24-hour format (for example, enter 23:00 for 11:00 p.m.) then click the calendar icon to select the date.

- When entering numbers for a comparison on a date field (**Within Days**, **Within Months**, **Within Years**), be aware that such comparisons are zero-based. For example, if you select the **Last Updated** column and select **Within Days**, you must enter zero in the **Value** field to get all records that were updated within one day or enter 1 to get records that were updated within two days.

9. (**Display** tab): define how results columns will be displayed:
   - Select the columns you want to work with (**Selected**, **Defaults**, or **All**) from the **View** list.
   - Select the **Only display unique results** option to prevent duplicate results from displaying. When the query includes a property with a display function such as **Count**, that property is used to determine unique results. If the query includes more than one display function, only the first function property displayed (defined by the display order) is used.
   - Select the results columns to **Display** to users. Select the **Order** in which you want the columns to display to users (from left to right). The order is based on the **Order** column, not the order in which they were chosen. Subsequent sorting selections go at the end of the sort order list (per session) by order listed within each session.

     **Note:** If you are defining a query for a merge output process, make sure you select all columns needed for the merge.

10. (optional) (**Sorting** tab): specify the sort order for each column:
    - Select the **Property** to sort by.
    - Select the sort **Priority** for each **Property**.
    - Select the **Direction** of data in each column: **Ascending** or **Descending**.
    - Click **+** to add the sort.

      The user can sort columns in the output by clicking on a column header. A carat symbol (^) will display in the column header, indicating that the column is now a sort column. The user's sort selection will override all prior definitions on the **Sorting** page. This user-selected change will adjust the definition in the query to reflect the current column sort.

      **Note:** If you choose not to define any parameters in the **Sorting** tab, then the results returned via SOA may be inconsistent within a single page. If you choose to

define one or more properties in the sorting tab, then the resulting set of returned pages should be consistent and return the same results within a page.

11. Select **Run** to test the query. If edits to the query are necessary, select **Define**.
12. **Security > Access Mode**: to assign access and privileges for the query and its results display. The default setting for a new query is “Authenticated Users Full Control”. Names of authorized users are listed in the **Current Access List**.
    Access Key and Contact Key are important when you are linking to objects with security, such as a Campaign business object where a user must have certain security to be able to view data.
13. Click **Save**. Select the folder in which to save the query.
14. (optional) Click **Report** to save this query as a report definition. You can customize these reports and export them to PDF or XLS format. See Reporting in IQA for more information.

**Defining a query (Advanced mode)**

The **Advanced** mode gives you powerful methods to query, filter, display, and report your results. The steps to build a query in Advanced mode are the same as in Basic mode, with additional options described in the following sections.

Use Advanced mode to define queries with calculations and/or SQL expressions, and to aggregate data. You can set up complex filters and assign aliases to field names for display.

To view examples of queries built in Advanced mode, see Query examples using Advanced mode.

Advanced options for Summary

In Advanced mode, the **Summary** page provides a field to define any SQL statement for your query.

Advanced options for Sources

In **Advanced** mode, the following options are available on the **Sources** page:

- **Use FORCE ORDER option**: Require SQL Server to join the tables in a query in the order you specify.
- **Use NOLOCK locking hint**: Require SQL Server to ignore record locks.
- **Use join method for security enforcement**: If enabled, when users run the query, iMIS checks to make sure they have permission to read every source within the query before displaying the results, whether the source is a business object, another query, or both. When disabled, iMIS does not check the security for every source and instead only enforces the security setting for the main query.

Advanced options for Filters

Filters refine a query. You can limit your results by eliminating duplicates, using comparisons, setting parameters, and using logical operators.

Tips for filters:

- If you installed iMIS on a case-sensitive SQL server, the filters you define are case-sensitive. You cannot define case-insensitive filters on queries when iMIS runs on a case-sensitive SQL Server.
- Select the **Require user to provide at least one value** option when you want to require a value for every filter you define for a query.
- Selecting **X** , or the remove icon, for a filter set removes both the filter set and all related filters from the query.

Advanced options for Display

In Advanced mode, the following options are available on the **Display** page:

- **Function**: Allows the user to find **Count** and **Min** or **Max** on a field.
- **Alias**: Creates a label name for the field to be displayed to users. The alias entered can contain special characters.
  Use `key_` or `code_` as a prefix in the **Alias** field to hide columns under certain conditions:
- If you use `key_` as a prefix, this field will be hidden if the current column is a GUID.
- If you use `code_` as a prefix, this field will always be hidden from the initial result set.
- **Link**: You can add a link for each column listed in the **Display** tab so that the user can click on the link to go to a specified page for more details. See Linking IQA results for more information.

- **Subtotal**: Specify whether the property should be subtotaled in the display. You can display query results in a hierarchical grid of summary rows and detail rows by using the **Subtotal** option. See Hierarchical grid display for more information.

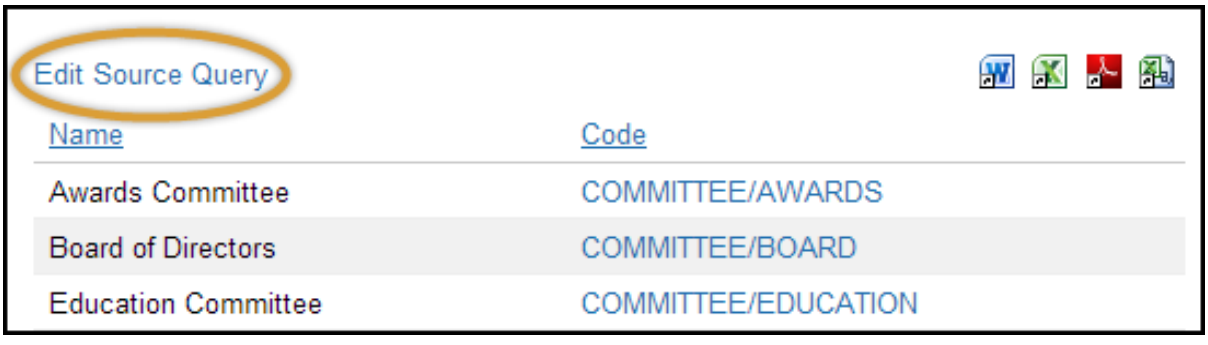
## Editing query-generated lists in iMIS

You can edit the queries behind IQA-generated lists directly from the page on which the list appears. Authorized users are able to edit an existing query that drives an IQA-generated list directly from the pages on which they appear. When you see a link called Edit Source Query above such a list, you can click the link and change the query in place, without leaving the page or navigating the Document System. This enables you to make quick and easy changes to query filters, column display, and sorting.

If the link does not appear above a query-generated list, then you must navigate to IQA to edit the query. For example, you cannot edit query-generated lists from some content items. Some IQA features are disabled from this view of the query: you cannot rename the query or Save As. Depending upon the list's implementation in iMIS, a list's **Edit Source Query** link may be hidden until the query is run for the first time.

> **Warning!**
>
> Queries are not versioned in iMIS. If you are unsure about the changes you are about to make, navigate to IQA so that you can create a copy of the original query before making any edits.

Click to view image




Do the following to modify a query from a webpage:

1. Navigate to the desired page.
2. Click **Edit Source Query**.
3. Modify the information for the query.
   Click for details
   - Renaming the query
   - Adding sources
   - Defining filters
   - Specifying columns and links to display
   - Selecting column sort order for display
   - Editing security settings
4. Click **Save**.
5. Run the query to check the results and the display.
6. (optional) Select **Report** and save this report definition to your workstation or to the Document System. Click **Save**.

### Finding customer records with IQA

You can use two business objects to find customer records in an IQA query.

**CsContact**

**CsContact** represents a customer record in the traditional Customer Portfolio sense.

**NetContact (recommended)**

**NetContact** contains the same fields as **CsContact** with an additional field called **ContactKey**. **ContactKey** is a unique identifier used in some of the iMIS web features (**Process Manger**, **Marketing Suite**, and so forth). This field is often used when filtering IQA results to a currently selected or logged in user (see Adding dynamic filters to queries for more details).

**NetContact** is also unique because what looks like one record might actually have two entries in this business object. In a standard individual customer record or company record you only see one entry. But combo records have one entry representing the company and a second entry representing the individual. In this case, the iMIS ID of the individual record has a prefix of **P**. If you join **NetContact** to another business object on the iMIS ID field, this limits the results of combo records to just the Company entry.

What is a combo record?

A combo record is a Company record that also contains a first or last name. This case only occurs if customer portfolio is not set to **Suppress Individual Name Fields for Company Records** (located in the Advanced Accounting Console at **Settings > Membership > Configure membership options > Basic Options**).

**How can I see if a new account has been created?**

You can create an IQA query to get a list of new accounts. Just add the "**User**" object as your Source, and filter on the "**User.Created On**" property to find new users created since a particular date, or within X number of months/days, etc.

You can also add the Contact object to your query in order to display the ID, Full Name, etc. Use this relationship to link the two objects:

**FK_UserMain_ContactMain (When User.UserKey = Contact.Contact Key**

If necessary, you could even filter on the **User.CreatedByUserKey** property in order to exclude records created by staff users.

### Developing filters

In **Advanced** mode, the following options are available on the **Filters** page:

- If you have selected multiple sources, you can select **Add Filter** to define additional filter rules using the **And**, **And Not**, **Or**, and **Or Not** connectors. Use the up and down arrows to specify the order in which to apply a filter.

**Controlling joins between filters**

When you define more than one filter, by default the join uses **And**, which narrows the results. However, if you add multiple filters on the same object **Property** (such as **StateProvince**), by default the filters join with an **Or** connective, which broadens the results. Therefore, to use the same object **Property** in an **And** join, create those filters separately. For example, to define a filter to obtain customer records in Texas and in Virginia, first create one filter (`where StateProvince = TX`) and then select **Add Filter** to define the second part (`where StateProvince = VA`).

- A **Multiple** checkbox is visible when the filter **Property** contains a discrete drop-down list of values. Selecting this checkbox changes the **Value** selector from a simple drop-down list that enables you to select only one specific value to a multi-select control that enables

you to select multiple values. The selected values are used as an **Or** comparison. See Defining a filter property with several values for more information.

> **Note:** Even if the **Multiple** checkbox is not visible, you can still manually specify multiple values for any filter property by entering a comma-delimited list of quoted values. For example, you could specify the following multiple values for a **City** property: `"Toronto","Montreal","Calgary"`

- **Require the user to provide at least one valid value**: User must enter a valid filter value before the query can be run.

### Adding runtime parameters

In Advanced mode, you can create a parameterized query, which allows (or requires) users to specify a value (such as `"state = FL"`) to narrow their search. This lets other staff members run a standard query, changing a runtime parameter value each time to get the results they need. Such queries are useful for organizations where limited number of users may create the actual queries.

### Limiting the rows returned by a query

You can set an advanced filter on a query to set a hard limit or a default value for the number of returned rows.

Do the following to limit the number of rows returned by a query:

1. Go to **RiSE > Intelligent Query Architect > New > Query**.
2. (**Filters** tab) Select **Advanced** mode.
3. Select the **Limit the number of results returned** option.
4. Enter the **Value** for the maximum number of rows to display.

> **Note:** To create a **top *n* records** query result, specify at least one property on the **Sorting** tab.

### Defining a filter property with several values

When a filter **Property** contains a drop-down list of values, you can select a single value from the list or you can select more than one. The selected values are used as an **Or** comparison.

Do the following to define multiple values for a filter property:

1. Go to **RiSE > Intelligent Query Architect > New > Query**.
2. (**Filters** tab) Select **Advanced** mode. A **Multiple** column displays between the **Comparison** and **Value** columns. For properties that have a discrete list of values, a checkbox displays in the **Multiple** column.
3. Select a property that has a discrete drop-down list of values, such as **State Province**.
4. Select the **Multiple** option.
5. A default **Value** displays. Browse to select another value.
6. From the **Available Values** list, select the values that you want to use in the filter. You can multi-select values by holding **Shift** or **Ctrl** while selecting values with your mouse.
7. Click **OK**. The selected values appear in the **Value** column.

**Adding dynamic filters to queries**

You can dynamically filter your query results using the variables described below.

> **Note:** You must enter the quotation marks where indicated when using the following variables.

- Filter by **ContactKey** and **UserKey** properties of a business object:
- "@LoggedInUser" and "@Me": Both filter by the currently logged in user.
- "@SelectedUser" and "@SubjectContact": Filters by a selected contact, such as contacts selected through On-Behalf-Of or user impersonation. These variables also honor ContactKeys sent using URL parameters. For example, set **NetContact.ContactKey** equal to "@SelectedUser".
- Filter by **ID**:
- “@SelectedID”: For authenticated users, this variable filters by a selected ID, such as contacts selected through On-Behalf-Of, user impersonation, or ID’s sent using URL parameters. For example, set **CsContact.ID** equal to “@SelectedID”.
- Filter by **date** properties:
- @Date: Filters by the current date.
- @Now: Filters by the current date and time.

- Filter by **URL parameter**:
- "@url:" Filters by a selected URL parameter, which allows queries to be called from any specified location, determined by the URL.
  For example, passing in the parameter MyId=123 in the Link from **Query 1** will allow 123 to be used as the **Value** of the filter in **Query 2**, by specifying "@url:MyId" for the filter in the second query.

### Defining a filter property with several values

When a filter **Property** contains a drop-down list of values, you can select a single value from the list or you can select more than one. The selected values are used as an **Or** comparison.

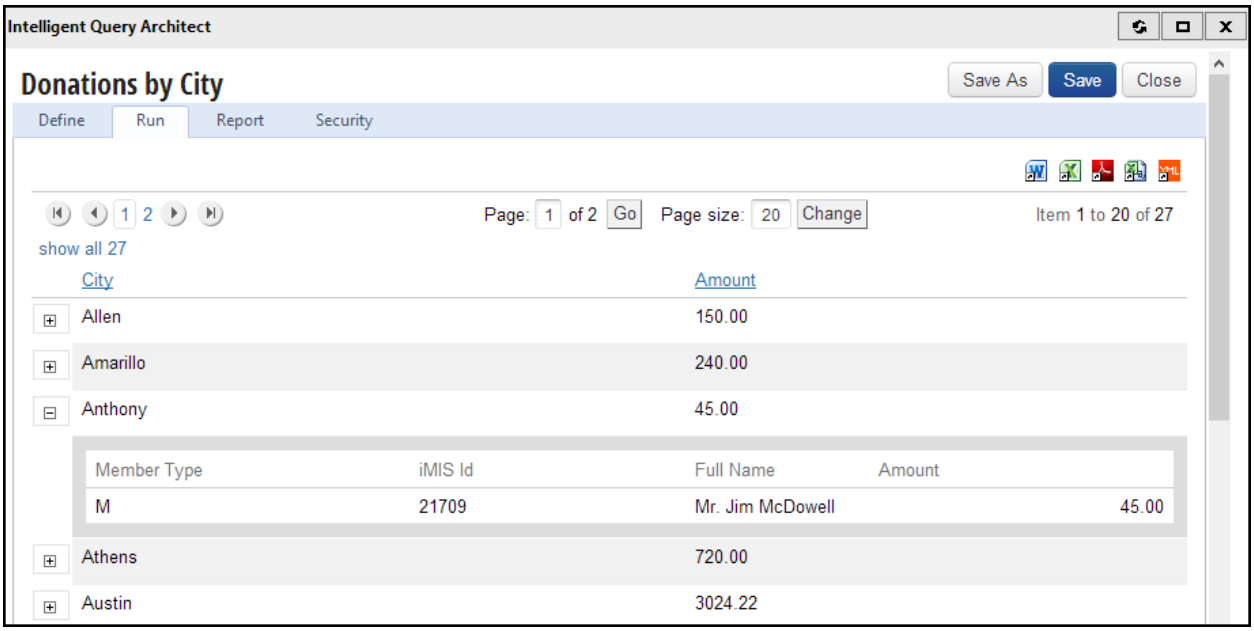
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3. Select a property that has a discrete drop-down list of values, such as **State Province**.
4. Select the **Multiple** option.
5. A default **Value** displays. Browse to select another value.
6. From the **Available Values** list, select the values that you want to use in the filter. You can multi-select values by holding **Shift** or **Ctrl** while selecting values with your mouse.
7. Click **OK**. The selected values appear in the **Value** column.

### Hierarchical grid display

You can display query results in a hierarchical grid of summary rows and detail rows by using the **Subtotal** option. Subtotaled columns display as high-level items. Expanding one of these items displays the detailed (non-subtotaled) items.

Click to view image




### Tips for creating a query displayed in a hierarchical grid

- If you select the **Subtotal** option for all properties in a query, the results will not be displayed in a hierarchical grid.
- Any properties that are not subtotaled are displayed in the detail rows only.
- To display a non-numeric property in the summary rows, select the **Subtotal** option.
- When any property in a query is subtotaled, then numeric, decimal properties (such as **Donations.Amount**, **Orders.Balance**, and **DuesHistory.Amount**) are automatically summed and displayed in the summary rows and also displayed in the detail rows. To display these properties in the summary rows only, select the **Subtotal** option.
- Non-decimal numeric properties such as **Contact.Date of Birth**, **Contact.iMIS Id**, and **Contact.Home Phone** are not automatically summed.
- If you select the **Subtotal** option for custom SQL expressions in your query, they are displayed in the summary rows. The subtotaled expression does not have any other effect on the query results.
- If the custom SQL expression is the only property subtotaled in your query, the query is not displayed in a hierarchical grid. You must select the **Subtotal** option for at least one property that is not a custom SQL expression to display a hierarchical grid.

### Hierarchical grid example

This example illustrates a query that displays all of the donations you have received, organized by city.

1. Go to **RiSE > Intelligent Query Architect > New > Query**.
2. Name the query **Donations by City**.
3. Select the **Advanced** mode.
4. (**Sources** tab) Add **CsDonations** and **CsContact**.
5. (**Display** tab) Select the following properties to be displayed:
   - **CsContact.City**
   - **CsContact.iMIS Id**
   - **CsContact.Full Name**
   - **CsContact.Member Type**
   - **CsDonations.Amount**
6. Select the **Subtotal** option for **Contact.City**.
7. Run the query.
   The results display in a hierarchical grid. You can click to expand and collapse the rows. The summary rows list the city (because it is subtotaled) and the donation amount (automatically because it is numeric and decimal). All other properties display in the second-level detail rows.

### Intelligent Query Architect (IQA)

The Intelligent Query Architect (IQA) is the foundation for searches, lists, and data for reporting throughout iMIS.

*See also*

- Understanding IQA
- Building a library of queries
- Defining queries
- Editing query-generated lists in iMIS
- Defining displays for users
- Finding customer records with IQA
- Developing filters
- Linking IQA results
- Hierarchical grid display

- Query examples
- Reporting in IQA

### Linking IQA results

IQA lets you design search results that contain live hyperlinks within the items that it returns. Using the **Link** feature on the **Display** tab, you can create hyperlinks for multiple columns in your query results. These links let users immediately click through to the records and content that they are seeking. In this example, users can click links to open specific contact profile and product pages.

Click to view image



**Recent Orders**

| Transaction Date | Full Name | Product Name | Quantity |
|---|---|---|---|
| 1/5/2011 | Mr. Charles P. Better, LLM | Waterbottle | 9 |
| 5/6/2010 | John Waitts | Video - Creating a New Business | 1 |
| 5/6/2010 | Sam Self | Video - Is Fast Food Franchising for YOU! | 1 |
| 5/6/2010 | Isaac Wilder | Video - Excelling through Service | 1 |
| 5/6/2010 | Fran Ramos | Video - Creating a New Business | 1 |

You add this linking while you are editing a query: in **Advanced** mode on the **Display** tab, populate the **Link** field with parameters to generate the custom link. The link must have one of the forms listed in the following table.

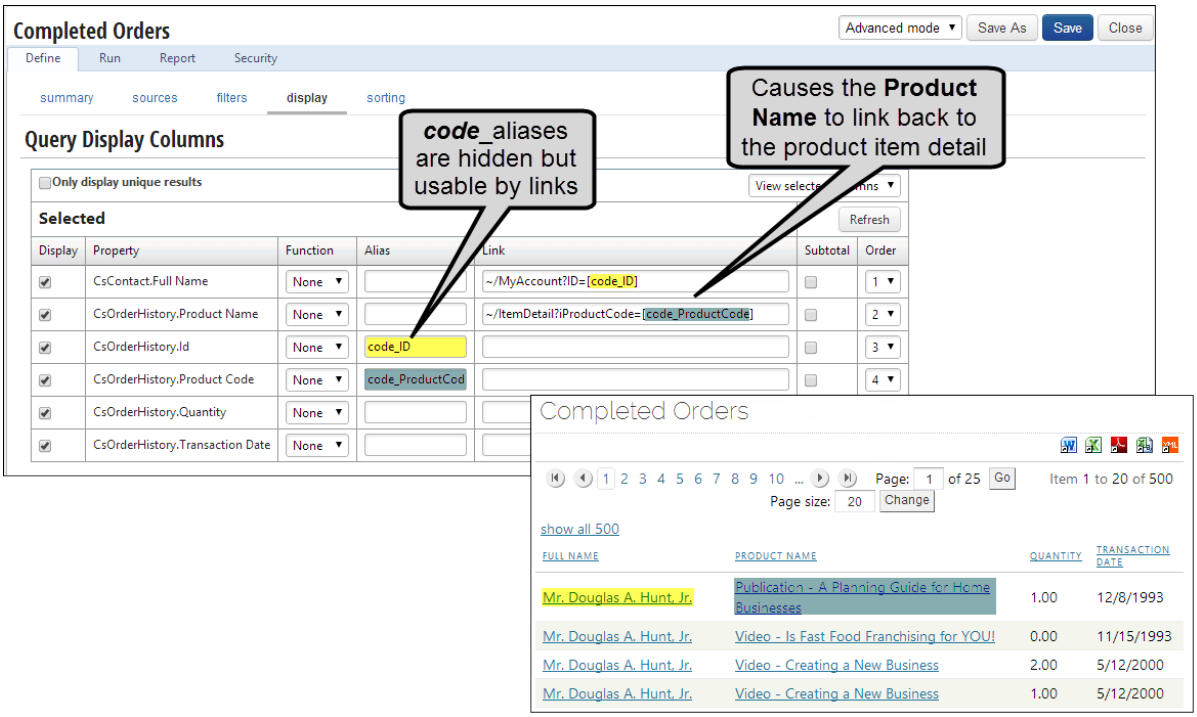
Click to view table

| | |
|---|---|
| Shortcut (preferred method) | **~/MyShortcut** |
| Content record | **~/MyShortcut** or **ContentCode=MyContentCode**<br><br>You must define the **ContentCode** in the content record to which you want to link. To define or edit a **Content Code**, go to **Page Builder > Manage content**, edit a content record, and expand the **Properties** pane.<br><br>**Note:** Shortcuts are the preferred method for creating links to content records. The **ContentCode** option is provided for |

| | |
|---|---|
| | compatibility with previous versions of iMIS. |
| Navigation item | **~/MyShortcut** or **NavigationCode=MyNavigationCode&URLParameter1Name=[PropertyName]**<br><br>You must define the **NavigationCode** in the navigation item to which you want to link. To define or edit a **Navigation Code**, go to **Site Builder > Manage sitemaps**, edit a navigation item, and expand the **Properties** pane.<br><br>**Note:** Shortcuts are the preferred method for creating links to navigation items. The **NavigationCode** option is provided for compatibility with previous versions of iMIS. |
| ASPX page in your site | **~/Webpage.aspx&URLParameterName=[AliasName]** |
| Dynamically populated page based on the value of one or more URL parameters | **~/MyShortcut&URLParameter1Name=[Alias Name]&URLParameter2Name=URLParam2Value** |

Combining **Link** strings with **Alias** variables lets you create powerful queries that open the details that your users need. This is how **Alias** and **Link** values relate to the query results:

Click to view image




For steps to set up a similar query, see Example: Display completed orders.

> **Note:** Where contact ID links go differs by platform. On your site, contact ID links open that contact's page (**~/Core/AccountManagement/Impersonation.aspx**).

### Guidelines for creating query links

- To build a link, you must first indicate whether it should point to a shortcut URL, a content record (**ContentCode**), a navigation item (**NavigationCode**), or an **ASPX** web page. Shortcuts and content record links display the published content record within an iMIS website, regardless of the sitemap definition. Links to a navigation item take the user to a particular page within an iMIS sitemap.
- **~/MyShortcut** – For the given property, a link is established to the shortcut specified (shortcuts are defined in **Site Builder > Manage shortcuts**). For example, if you want to link query results to a **Products** shortcut you have defined, then enter **~/Products**.
- **ContentCode=MyContentCode** – For the given property, a link is established to the content identified by the **ContentCode** value. For example, if you want to link query results to a product page content record that has a **Content Code of Specials**, then enter **Con-**

**tentCode=Specials**. To define or edit a **Content Code**, go to **Page Builder > Manage content**, edit a content record, and expand the **Properties** pane.

> **Note:** If the **Link** includes both a **ContentCode** and **NavigationCode**, only the **ContentCode** is used to build the link.

- **NavigationCode=MyNavigationCode** – For the given property, a link is established to the navigation item identified by the **NavigationCode** value. For example, if you want to link query results to a profile page's navigation item that has a **Navigation Code** of **ProfilePage**, enter **NavigationCode=ProfilePage**. To define or edit a **Navigation Code**, go to **Site Builder > Manage sitemaps**, edit a navigation item, and expand the **Properties** pane.
- **~/Webpage.aspx** – For the given property, a link goes to an **ASPX** web page, relative to the root of your website. By default, the root corresponds to **C:\Program Files\ASI\iMIS\Net**. For example, **~/Party.aspx**.

> **Note:** Party.aspx is a sample redirector page shipped with iMIS that checks the user's permissions to determine which content record to display. To see a sample query that uses this functionality, from IQA open $/ContactManagement/DefaultSystem/Queries/Directory/People search.

- Using URL parameters, you can control the data displayed on the target page if it contains a content item that accepts such a value. The URL parameter can either be hard-coded to a specific value or it can be dynamically generated based on the value of a particular **Property** or **Alias** of the query. You can add multiple URL parameters to the **Link**, separated by ampersands (**&**). URL parameters should be in the following form:
- **&URLParameter1Name=[PropertyName]** – Dynamically builds the link based on the value of the specified query property. When referencing a query property, do not include any spaces. For example, if you want to set the URL Parameter **iProductCode** (used by the **General Product Display** content item) to the **Product Code** property value, enter **&iProductCode=[ProductCode]** (no space between **Product** and **Code**). By combining this example with the **Shortcut** example, you can build a link that opens the shortcut populated with the product in the query results. The full **Link** would look like:

```
~/Products&iProductCode=[ProductCode]
```

- **&URLParameter1Name=[Alias Name]** – Dynamically builds the link based on the value of the specified **Alias**. If you want to create a link for a query property and you have given it an **Alias**, then you must reference the **Alias** name in the **Link**, not the **Property** name. For example, if you want to set the URL Parameter **ID** (used in several contact content items) to an **ID** property value in the query results, and you have given that property an **Alias** name of **iMIS User ID**, enter **&ID=[iMIS User ID]**. By combining this example with the **NavigationCode** example, you can build a link that opens a particular user's profile page. The full link would look like:

```
NavigationCode=ProfilePage&ID=[iMIS User Id]
```

- **&URLParameter1Name=URLParameter1Value** – Sets the URL parameter to a hard-coded value in all of the results.
- Any properties used to build links must be selected for display in the query (**Display** tab). However, you may not want a user to see values for all of the properties required to build the links. You can hide columns from a user by giving the property an **Alias** prefaced with **code_**. In the previous example screenshot , the **Full Name** column uses the value of an **ID** property to build the links, but the **ID** property is hidden by giving it an **Alias** of **code_ ID**.

**Troubleshooting tips**

- If you get an error message after clicking a link in your query results, check your link entry for the following:
- If you have an opening bracket, you must also have a closing bracket [ ].
- If you provide an **Alias** for a property, then the original property name is no longer usable in the **Link** field. The **Alias** always overrides the original field name and will be the only column name available for reference in the results.
- If your query result links do not work as expected, try the following troubleshooting techniques:
- If possible, find a place in iMIS where the target page is correctly displayed and compare the URL parameters that appear for that page to the ones you have identified in the **Link** text field.  Are there additional parameters required that you have not provided?

- Add the query to a content record in your website, so that you can view the query results like an end user would. After clicking a linked query result, examine the URL in your browser. Compare it to the **Link** you have built in IQA to determine if the URL is incomplete and if it contains everything you intended.

## Query examples

### Usin g Basic mode

> **Note:** If you're new to IQA, open the example query and explore the options available. Select **RiSE > Intelligent Query Architect**, navigate to **Common > Examples > Email Merge Example**, select **Example Contact Query**, and click **Edit**.

**Example: Find members by company and state**

This query extracts those individuals whose companies are located in the state of Texas.

1. In the Staff site, go to **RiSE > Intelligent Query Architect > New > Query**.
2. (**Sources** tab) > **Add Source**.

- **Common > Business Objects**.
- Select CsContact two times.

> **Note:** When you add multiple instances of a source, the system automatically appends a numeric value (beginning with the number 1) to the second source and all following sources in order to distinguish between each instance. For example, if you add the CsContact business object three times, the system labels the second and third instances CsContact1 and CsContact2, respectively.

- In the **Relations** area of the **Sources** tab, make sure the custom relation is **CsContact.Company Id Equals CsContact1.iMISId**.

3. (**Filters** tab).

- **Mode**: Basic
- Filter on CsContact.MemberType.
  - **Property**: CsContact.MemberType
  - **Comparison**: Equals
  - **Value**: Regular Member
  - Click **+** to add the filter.
- Filter on CsContact1.StateProvince.

- **Property**: CsContact1.StateProvince
- **Comparison**: Equals
- **Value**: TX
- Click **+** to add the filter.

4. (**Display** tab) Define the columns to display in the output.

- Select the following columns:
- CsContact.iMISId
- CsContact.Company
- CsContact.MemberType
- CsContact1.StateProvince

> **Note:** A default list of columns displays when you select the **Display** tab. Deselect the columns you do not need. If a column you need is not in the default list, select **All** from the **View** drop-down list and scroll down the page to select the desired column.

- Using the **Order** drop-down list on the **Display** tab, assign:
- CsContact.iMISId Order 1
- CsContact.Company Order 2
- CsContact.MemberType Order 3
- CsContact1.StateProvince Order 4

5. (**Sorting** tab). Specify the sorting priority.

- Sort the results by CsContact.Id.
- Click **+** to add your selection.

6. Save your settings.
7. **Run** the query.

**Example: Find purchases by amount and date**

This query extracts customers who have purchased more than $100 within a specific date range.

1. In the Staff site, go to **RiSE > Intelligent Query Architect > New > Query**.
2. (**Sources** tab) > **Add Source**.

- **Common folder > business objects**.
- Select the **CsContact** and **CsActivityBasic** business objects.

- Use **CTRL** to select multiple objects
- Make sure the default join in the **Relations** area is **Contact.iMIS Id Equals CsActivityBasic.Id**.

3. (**Filters** tab).

- **Mode**: Basic
- Filter on CsActivityBasic.Activity Type.
  - **Property**: CsActivityBasic.Activity Type
  - **Comparison**: Equals
  - **Value**: ORDER
  - Click **+** to add the filter.
- Filter on CsActivityBasic.Transaction Date.
  - **Property**: CsActivityBasic.Transaction Date
  - **Comparison**: Between
  - **Value**: "1/1/2011","12/31/2011"
  - Click **+** to add the filter.
- Filter on CsActivityBasic.Amount.
  - **Property**: CsActivityBasic.Amount
  - **Comparison**: Greater
  - **Value**: 100
  - Click **+** to add the filter.

4. (**Display** tab) Define the columns to display in the output:

- Using the **Order** drop-down list on the (**Display** tab), assign:
  - CsContact.iMIS Id Order 1
  - CsActivityBasic.Amount Order 2

> **Note:** A default list of columns displays when you select the **Display** tab. Deselect the columns you do not need. If a column you need is not in the default list, select **All** from the **View** drop-down list and scroll down the page to select the desired column.

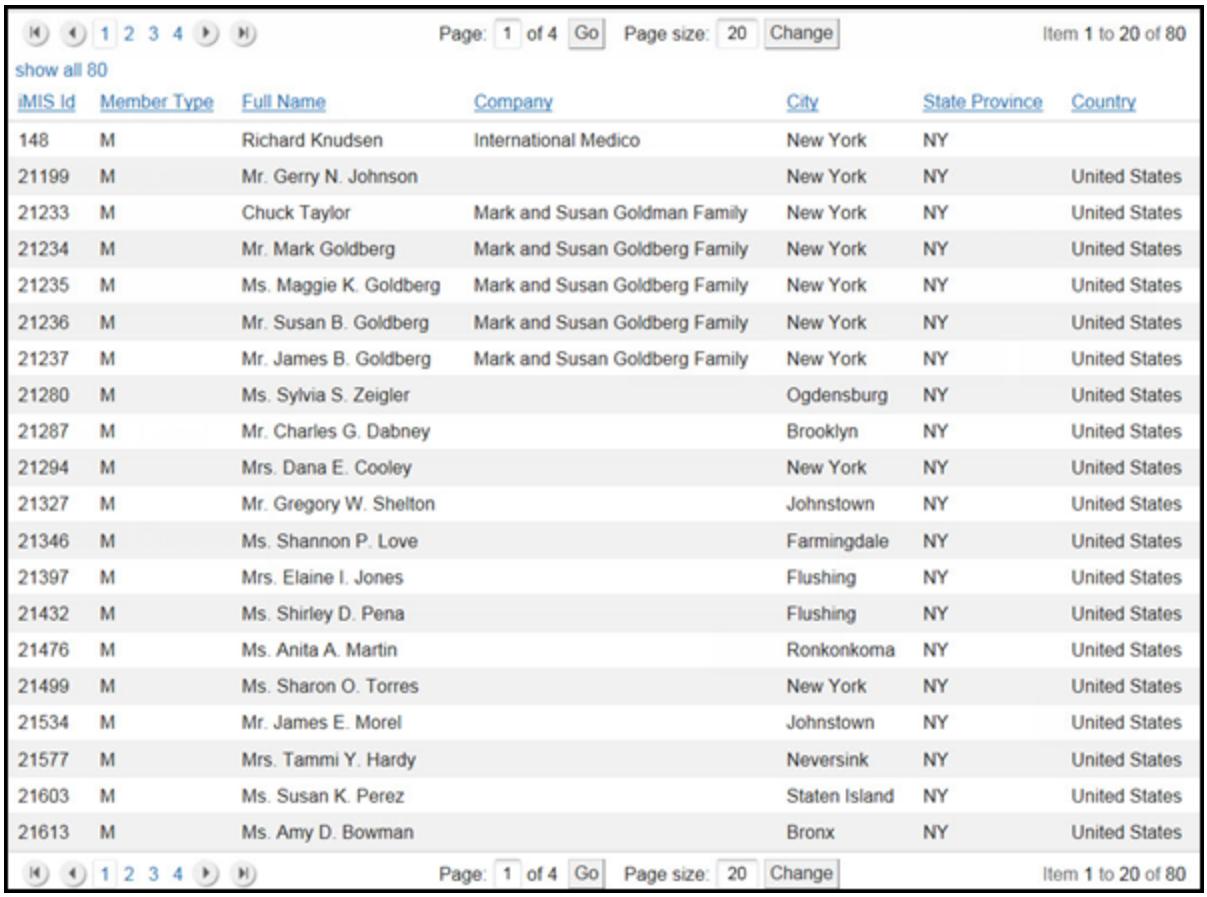
5. (**Sorting** tab) Specify the sorting priority.

- Sort the results by CsContact.iMIS Id.
- Click + to add the selection.

6. Save your settings.
7. **Run** the query.

**Example of Basic mode query (one source): Find all members in New York**

1. In the Staff site, go to **RiSE > Intelligent Query Architect > New > Query**.
2. **Mode**: Basic
3. (**Summary** tab) Enter the name and description for this query.
4. (**Sources** tab) Select **Add Source > Common > Business Objects > CsContact**.
5. (**Filters** tab) select:
   - Filter on StateProvince.
     - **Property**: StateProvince
     - **Comparison**: Equals
     - **Value**: New York
     - Click **+** to add the filter.
   - Filter on MemberType
     - **Property**: MemberType
     - **Comparison**: Equals
     - **Value**: Regular Member
     - Click **+** to add the filter.
6. (**Display** tab) Select **View > Selected** columns. Select the columns to display and the order.
7. Click **Run**. Depending on your system's display settings, your results could display similarly to the following image.
   Click to view image



1 2 3 4 Page: 1 of 4 Go Page size: 20 Change Item 1 to 20 of 80

show all 80

| iMIS Id | Member Type | Full Name | Company | City | State Province | Country |
|---|---|---|---|---|---|---|
| 148 | M | Richard Knudsen | International Medico | New York | NY | |
| 21199 | M | Mr. Gerry N. Johnson | | New York | NY | United States |
| 21233 | M | Chuck Taylor | Mark and Susan Goldman Family | New York | NY | United States |
| 21234 | M | Mr. Mark Goldberg | Mark and Susan Goldberg Family | New York | NY | United States |
| 21235 | M | Ms. Maggie K. Goldberg | Mark and Susan Goldberg Family | New York | NY | United States |
| 21236 | M | Mr. Susan B. Goldberg | Mark and Susan Goldberg Family | New York | NY | United States |
| 21237 | M | Mr. James B. Goldberg | Mark and Susan Goldberg Family | New York | NY | United States |
| 21280 | M | Ms. Sylvia S. Zeigler | | Ogdensburg | NY | United States |
| 21287 | M | Mr. Charles G. Dabney | | Brooklyn | NY | United States |
| 21294 | M | Mrs. Dana E. Cooley | | New York | NY | United States |
| 21327 | M | Mr. Gregory W. Shelton | | Johnstown | NY | United States |
| 21346 | M | Ms. Shannon P. Love | | Farmingdale | NY | United States |
| 21397 | M | Mrs. Elaine I. Jones | | Flushing | NY | United States |
| 21432 | M | Ms. Shirley D. Pena | | Flushing | NY | United States |
| 21476 | M | Ms. Anita A. Martin | | Ronkonkoma | NY | United States |
| 21499 | M | Ms. Sharon O. Torres | | New York | NY | United States |
| 21534 | M | Mr. James E. Morel | | Johnstown | NY | United States |
| 21577 | M | Mrs. Tammi Y. Hardy | | Neversink | NY | United States |
| 21603 | M | Ms. Susan K. Perez | | Staten Island | NY | United States |
| 21613 | M | Ms. Amy D. Bowman | | Bronx | NY | United States |

1 2 3 4 Page: 1 of 4 Go Page size: 20 Change Item 1 to 20 of 80

*Example query results: Members from New York*

**Example of Basic mode query (two sources): Find all members in New York who attended an event**

1. In the Staff site, go to **RiSE > Intelligent Query Architect > New > Query**.
2. **Mode**: Basic
3. (**Summary** tab): enter the name and description for this query.
4. (**Sources** tab) Select **Add Source > Common > Business Objects > CsContact and > Activity**.
5. Use the default relation between the two business objects:
   **FK_ Name_Activity (When CsContact.Imis Id = Activity.Id)**
6. (**Filters** tab):

- Filter on CsContact.State Province
- **Property**: CsContact.State Province
- **Comparison**: Equal

- **Value**: New York
- Click **+** to add the filter.
- Filter on CsContact.Member Type
- **Property**: CsContact.Member Type
- **Comparison**: Equal
- **Value**: Regular Member
- Click **+** to add the filter.
- Filter on Activity.Activity Type
- **Property**: Activity.Activity Type
- **Comparison**: Equal
- **Value**: MEETING
- Click **+** to add the filter.
- Filter on Activity.Transaction Date
- **Property**: Activity.Transaction Date
- **Comparison**: Greater Equal
- **Value**: 1/1/2009
- Click **+** to add the filter.

7. (**Display** tab) Select **View > Selected columns**. Select the columns to display and the order. Select the **Only display unique results** option.
8. Click **Run**. The results are a subset of the list in the previous example.
   Click to view image

| iMIS Id | Member Type | Full Name | Company | City | State Province | Country |
|---|---|---|---|---|---|---|
| 21234 | M | Mr. Mark Goldberg | Mark and Susan Goldberg Family | New York | NY | United States |
| 21294 | M | Mrs. Dana E. Cooley | | New York | NY | United States |
| 21939 | M | Mrs. Faith Conner | | Comstock | NY | United States |

*Example query results: Members from New York who attended the 2009 Conference*

### Using Advanced mode

**Example: Find members by state or join date**

This query extracts individual members who live in Texas or those who joined between 1993 and 1997, eliminating duplicates when the same rows are returned by the multiple subqueries.

1. Go to **RiSE > Intelligent Query Architect**. Select **New > Query**.
2. (**sources** tab) Browse to the **Common > Business Objects** folder, and select **CsContact**.
3. (**filters** tab) Select the **Advanced mode**.
4. Create a filter on **Member Type**:
   - Comparison: **Equal**
   - Value: **Regular Member**
5. Click **+** to add the filter.
6. Create a filter on **State Province**:
   - Comparison: **Equal**
   - Value: **Texas**
7. Click **+** to add the filter.
8. Click **Add Filter**.
9. Select **Or** from the **Property** drop-down list.
10. Create a filter on **Member Type** equal to **Regular Member**:
    - Comparison: **Equal**
    - Value: **Regular Member**
11. Click **+** to add the filter.
12. Create a filter on **Join Dates**:
    - Comparison: **Between**
    - Value: **1/1/1993** and **12/31/1997**
    - Click + to add the filter.
13. Click **+** to add the filter.
14. (**display** tab) Select the **Only display unique results** option.
15. Select the following columns:
    - **iMIS Id**
    - **State Province**
    - **Join Date**

> **Note:** A default list of columns is displayed when you select the **display** tab. Deselect the columns you do not need. If a column you need is not in the default list, select **View all columns** from the drop-down, and scroll to find and select the desired column.

16. In the **Order** column, assign the following:
- **iMIS Id** - **1**
- **State Province** - **2**
- **Join Date** - **3**
17. (**sorting** tab) Sort the results by **iMIS Id** to specify the sorting priority.
18. Click **+** to add your selection.
19. Save your settings and run the query.

**Example: Find total number of pledges by amount**

This query extracts the total number of members who have made a pledge of $50 or more.

1. Go to **RiSE > Intelligent Query Architect**. Select **New > Query**.
2. (**sources** tab) Browse to the **Common > Business Objects** folder, and select the following business objects:
- **CsContact**
- **CsActivityBasic**
3. (**filters** tab) Select the **Advanced mode**.
4. Filter on **CSActivityBasic.Activity Type**:
- Comparison: **Equal**
- Value: **PLEDGE**
5. Click **+** to add the filter.
6. Filter on **CsActivityBasic.Amount**:
- Comparison: **Greater**
- Value: **50**
7. Click **+** to add the filter.
8. (**display** tab) Select to display the **CsContact.iMIS Id** property:
- Function: **Count**
- Alias: **Pledges**
- Order: **1**

**Note:** A default list of columns is displayed when you select the **display** tab. Deselect the columns you do not need. If a column you need is not in the default

list, select **View all columns** from the drop-down, and scroll to find and select the desired column.

9. Save your settings and run the query.

**Example: Find registrants of past (closed) events**

This query joins two business objects to extract the registrants for a specified event. At runtime, the user supplies the event code.

1. Go to **RiSE > Intelligent Query Architect**.
2. Browse to the folder in which you want to store a new query. Select **New > Query**.
3. (**summary** tab) Enter a **Name** for the query.
4. (**sources** tab) Browse to the **Common > Business Objects** folder, and select the following business objects:

- **CsContact**
- **CsEventHistory**

5. In the **Relations** area, make sure the default relation is **CSContact.iMIS Id = CsEventHistory.Id**.
6. (**filters** tab) Select the **Advanced mode**.
7. Filter on **csEventHistory.Event Code**:

- Comparison: **Equal**
- Prompt: **Optional** or **Required**.

**Note:** Enter a prompt in the field, for example, **Event Code**.

8. Click **+** to add the filter.
9. (**display** tab) Select the following columns:

- **CsContact.iMIS Id**
- **CsContact.Full Name**
- **CsContact.Company**
- **CsEventHistory.Event**

**Note:** A default list of columns is displayed when you select the **display** tab. Deselect the columns you do not need. If a column you need is not in the default

> list, select **View all columns** from the drop-down, and scroll to find and select the desired column.

10. Click **Refresh**.
11. In the **Order** column, assign the following:
    - **CsContact.iMIS Id Order – 1**
    - **CsEventHistory.Event Order – 2**
12. (**sorting** tab) Sort the results by **CsEventHistory.Event**.
13. Click **+** to add the selection.
14. Save your settings and run the query.

> **Note:** If you want to show current registrants of open events, link to **csRegistration** instead of **csEventHistory** and set the default relation as **CsContact.iMIS ID = csRegistration.Ship To ID**.

> **Note:** The primary difference between **Cs** and non-**Cs** objects is that the the non-**Cs** objects contain the .NET security, but **Cs** objects are basically just views pointing to the underlying non-.NET tables. When you use a non-**Cs** object, you might notice additional fields such as **Access Key** and **Contact Key**. These fields are important when you are linking to objects with security, such as a **Campaign** business object where a user must have certain security to be able to view data.

**Example: Find registered members by city with award**

This query shows individual members with an AWARD activity type.

1. Go to **RiSE > Intelligent Query Architect**. Select **New > Query**.
2. (**sources** tab) Browse to the **Common > Business Objects** folder, and select the following business objects:
   - **CsContact**
   - **CsActivityBasic**
3. (**filters** tab) Select the **Advanced mode**.

4. Filter on **CsActivityBasic.Activity Type**:
   - Operator: **Where**
   - Comparison: **Equal**
   - Value: **AWARD**
5. Click the **+** icon to add the filter.
6. Click **Add Filter**.
7. Filter on **CsContact.Member Type**:
   - Operator: **And**
   - Comparison: **Equal**
   - Value: **Member**
8. Click the **+** icon to add the filter.
9. (**display** tab) Select the following columns:
   - **CSContact.iMIS Id**
   - **CsContact.Full Name**
   - **CsContact.City**
   - **CsActivityBasic.Description**
   - **CsActivityBasic.ProductCode**
10. In the **Order** column, assign the following:
    - **CsContact.City Order** – **1**
    - **CsContact.Last Name Order** – **2**
11. (**sorting** tab) Sort the results by **CsContact.iMIS Id**.
12. Click **+** to add your selection.
13. Save your settings and run the query.

**Example: Dynamic filter**

In this example, the query finds all of the contacts created this year using the **@Now** variable to dynamically filter the query.

1. Go to **RiSE > Intelligent Query Architect**. Select **New > Query**.
2. (**summary** tab) Enter a **Name** for the query.
3. (**sources** tab) Browse to the **Common > Business Objects** folder, and select the **CsContact** business objects:
4. (**filters** tab) Select the **Advanced mode**.

5. Filter on **Date Added**:
- Comparison: **Between**
- Value: **1/1/2014** and **@Now**
6. Click the **+** icon to add the filter.
7. (**display** tab) Customize the fields to display.
8. Save your settings and run the query. When you run the query, it lists all of the contacts created so far this year.

**Example: Display completed orders**

This example uses the **Query Menu** content item and the **Link** feature to display completed orders to users.

1. Go to **RiSE > Intelligent Query Architect > New > Query**.
2. (**summary** tab) Enter the name **Completed Orders** for the query.
3. (**sources** tab) Browse to the **Common > Business Objects** folder, and select the following business objects:
- **CsContact**
- **CsOrderHistory**
4. (**filters** tab) Select the **Advanced mode**.
5. (**display** tab) Select the following columns:
- **CsContact.Full Name**
- **CsOrderHistory.Transaction Date**
- **CsOrderHistory.Id**
- **CsOrderHistory.Product Name**
- **CsOrderHistory.Product Code**
- **CsOrderHistory.Quantity**
6. Give the following properties an **Alias** prefaced with **code_**, so that the column value is hidden in the query results but can still be used as a reference in the **Link**:
- **CsOrderHistory.Id** – Alias **code_ID**
- **CsOrderHistory.Product Code** – Alias **code_ProductCode**
7. For **CsContact.Full Name**, enter the following **Link**:

```
~/MyAccount&ID=[code_ID]
```

> **Note:** This **Link** assumes that you have a shortcut named **MyAccount** pointing to a content record containing **Contact** content items that can use the **ID** URL parameter.

8. For **CsOrderHistory.Product Name**, enter the following for the Link:

```
~/ItemDetail&iProductCode=[code_ProductCode]
```

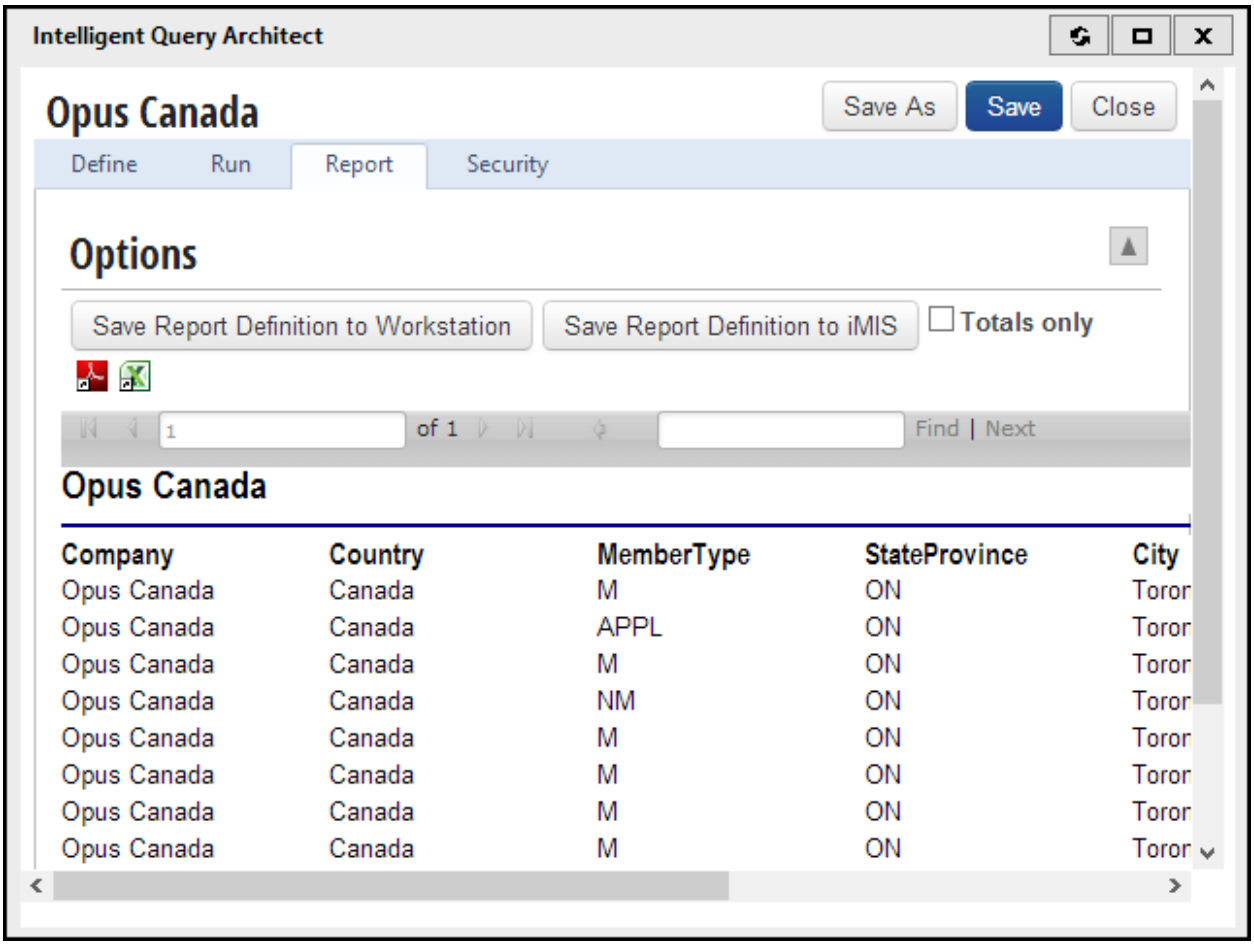
> **Note:** This **Link** assumes that you have a shortcut named **ItemDetail** pointing to a content record containing the **General Product Display** content item.

9. (**sorting** tab) Select the **CsOrderHistory.Transaction Date** property and sort by **Descending**.
10. Save the query.
11. Go to **Page Builder > Manage content**, and add the **Query Menu** content item to a content record.
12. In the **Source query or folder** field, select the **Completed Orders** query.
13. Click **OK**, then save and publish your content record.
14. Go to **Site builder > Manage sitemaps**, and add the content record to a navigation item. When the query results are displayed in your website, the results in the **Account** and **Product** columns are linked to the pages you defined in your query.

## Reporting in IQA

This Report view is a fast and easy way to create and print new iMIS reports and to generate starter reports for later development. SSRS reports are always bound to a single query.

Click to view image




*IQA reporting presents on-demand report generation, plus the ability to save as iMIS reports and RDL templates.*

IQA reporting lets you:

- Export rendered reports to .PDF format, for archiving, sharing, and printing, and to .XLS format, for spreadsheet usage
- Customize the generated reports: totals, subtotals, summaries (**Total Only**), parameters (associated in the query)
- Save the reports into the Document System, which automatically adds the new template (.RDL) and its matching output process (binding query, template, and security to a report name you choose)
- Save the generated template file (.RDL) locally, to customize later in SQL Server Business Intelligence Studio

**Quick facts: IQA reporting**

- iMIS integrates with the Microsoft SQL Server Reporting Service (SSRS)
- iMIS also harnesses it to bring dynamic reporting capability to iMIS queries.
- IQA reporting makes it possible to turn any query into an SSRS report:
  - Filtered and auto-formatted
  - Customized with sub-totals and layout settings
  - Easily saved back into the Document System
  - Easily saved to your workstation as an .RDL
  - Free report customization in Business Intelligence Studio

Report from every query

- Every working query in iMIS can render a report in one click, without any modification
- Create reports on the fly without having to learn a report designer
- Reports inherit whatever filters the query contains
- Changes to the query show up in IQA reports immediately
- Built-in report navigation: start, end, next/previous page, jump to page

Auto-formatting

- Query result columns become report columns
- Formatting adjusts to fit the number of columns
- Change column order just by reordering them in the query

Simple saving

- No garbage: if you just create, view, and close a report, no files save or accumulate
- You save your query changes separately from the report
- **Save to iMIS** creates the report and template pair wherever you choose in the Document System
- Saved reports can be exposed and shared throughout iMIS as any other report
- **Save to Workstation** creates the report template (.RDL) on your file system, for offline editing
- Exports report data to Excel (XLS) format
- Exports formatted report to Adobe PDF

Subtotaling

- On the **Display** tab of queries, columns can be subtotaled and totaled
- Sort order controls order of subtotaling
- Use **Totals Only** to create a summary view, of subtotals without data lines

Customizable layout

- **SystemConfig** table holds SSRS parameters that set layout and formatting of all IQA reports

- Control page size (such as A4 versus Letter) and lay out headers and footers
- Control fonts, background and foreground colors, shading and separator lines
- Set report language and unit of measure

### Creating and saving IQA reports

For all of your queries, the Report option in the IQA Editor lets you generate formatted reports on demand, as well as reusable objects: SSRS template files and matching output processes. Your queries from prior releases can leverage the Report command: no upgrading is needed to make them compatible.

Saving reports from IQA

1. Run a Query, and navigate to **Report**.
2. Select **Save Report Definition to iMIS** to save the reports to the Document System, which automatically adds the new template (.RDL) and its matching output process. The output process binds query, template, and security to a report name you choose.
3. Select **Save Report Definition to Workstation** to export the generated template file (.RDL).
4. You can customize the RDL in SQL Server Business Intelligence Development Studio.
5. Select the **Acrobat** and **Excel** icons to export the report to standalone PDF or Excel files.
6. You can **Open** these exports directly in the application or **Save** them to your file system.

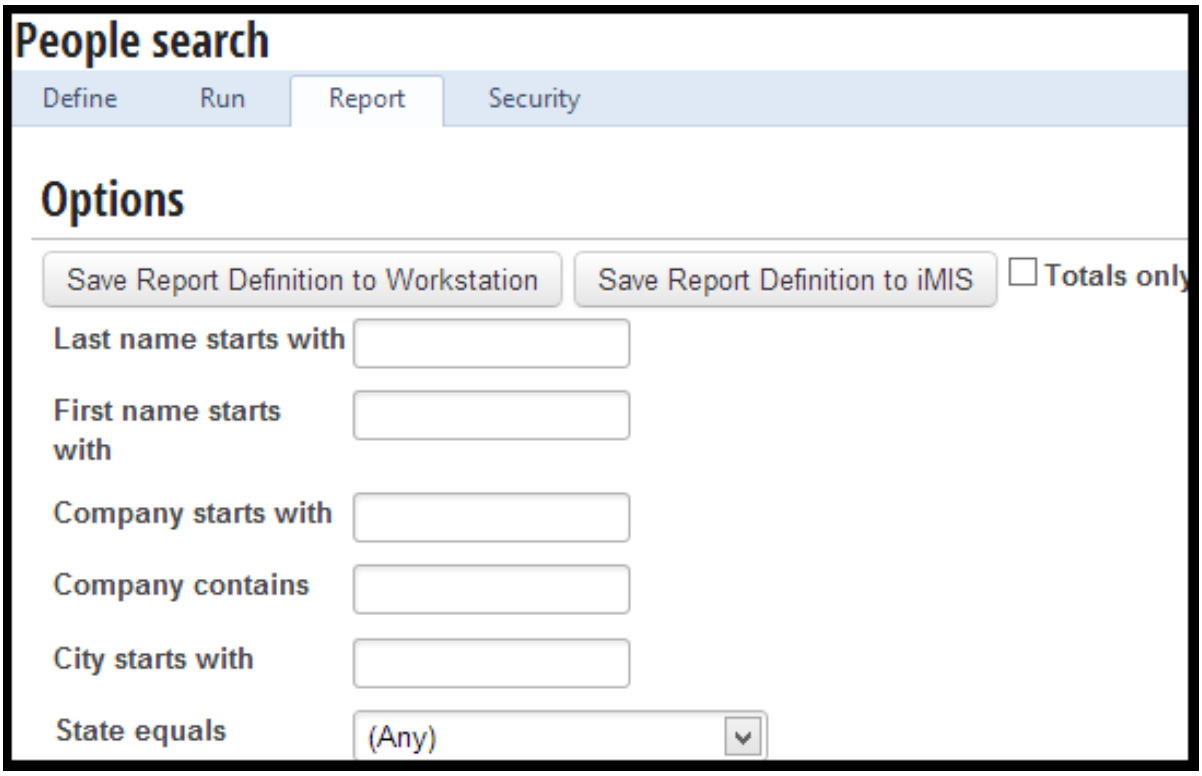
Creating a report from a query

1. **Edit** a query and click the **Report** link in the IQA navigation.
2. The report generates in memory and displays, fully formatted, immediately.
3. Reports default to the actual page size specified by your global parameters (see Changing the default layout for SSRS reports), so use the scroll bars to preview the entire area.

> **Note:** If the report is too large to fit in portrait orientation, it renders in landscape. If it is too large for landscape, the columns are narrowed to fit.

4. If your query includes filters (which appear in the **Options** area above the report display itself), enter a value in any or all of the filters, as needed, and click **Refresh**.

Click to view image




The report regenerates based on the filter.

5. Adjust the filters and **Refresh** as needed.

### Printing IQA reports

IQA handles printing with printer-ready layout through its facility to export to .PDF. You must have Acrobat Reader installed on your workstation to support this. When you export by clicking one of the output icons, you're prompted to **Open** or **Save**.

When you select **Open** (or you later open the .PDF file from Windows Explorer after saving it), the exported .PDF displays in Acrobat Reader.

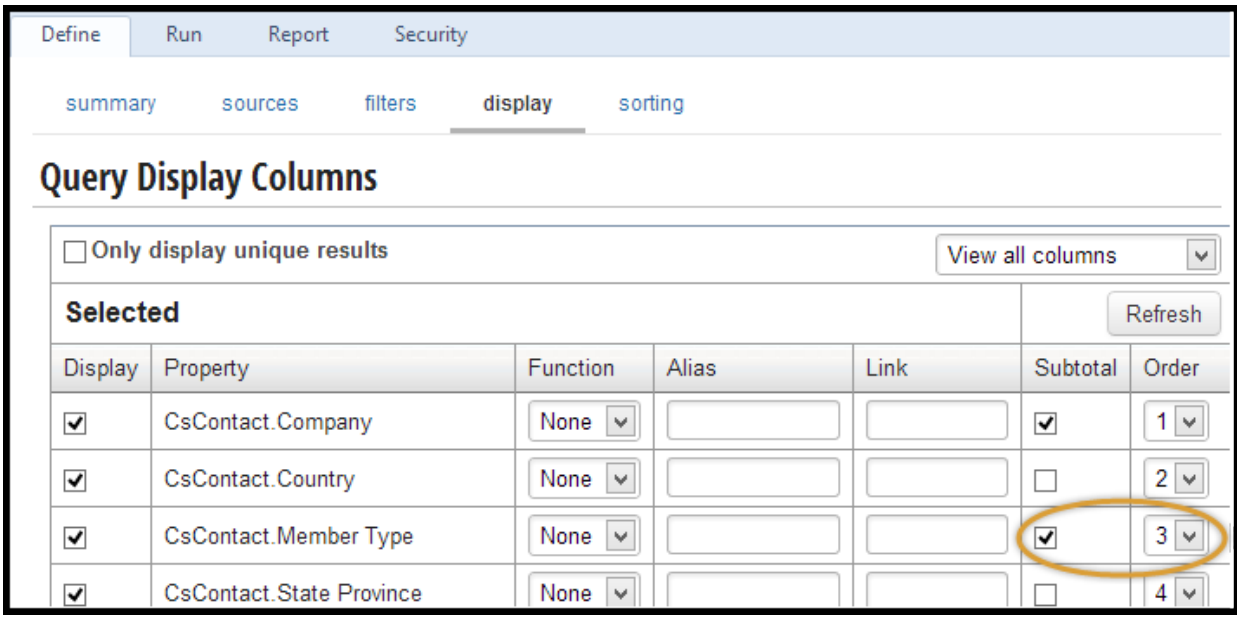
1. Verify that Acrobat Reader is installed on your workstation.
2. Open the PDF report, from either IQA or the file system on your workstation.
3. In Acrobat Reader, open the **Print** dialog, using the toolbar icon or **File > Print**.
4. Select the printer you want, and click **Properties** if you need to change the paper or orientation.
5. Select the print range, page handling, and advanced settings you want.
6. Click **OK**.

### Subtotaling and ordering IQA reports

You can apply one or more subtotals in your query definition. In Reporting Services terms, subtotals are “groups”. When you enable **Subtotal** for a **Display** enabled field, a group is added. The groups nest in the **Order** you specify after **Subtotal**.

> **Note:** If you see ReportViewer errors, you might have an older control. To get the newer version, search the web for Microsoft Report Viewer Redistributable 2005 SP1 (Full Installation), which is available for free download from several sites.

In the output, group headers appear for the first group only; group footers, with a count and the value being grouped, print for all groups.




*Using subtotals in the definition of a simple Activity List query*

Example of subtotaled results

Below is the third page of the generated report. The Report Viewer provides navigation controls on its toolbar to let you jump to the first page, last page, next page, previous page, and specific page number:



In this example, ID 108 has 9 activities (separate Activity Types): 1 meeting, 3 orders, 4 dues, and 1 gift:

| Id | Full Name | Activity Type | Description | Amount |
|---|---|---|---|---|
| 107 | Ms. Paula D. Caller, CPA | CERTIFICAT | Certified Government Accounting Specialist - Initial | 0.00 |
| **Count of CERTIFICAT: 2** | | | | **0.00** |
| 107 | Ms. Paula D. Caller, CPA | Gift | General Distribution | 50.00 |
| **Count of Gift: 1** | | | | **50.00** |
| 107 | Ms. Paula D. Caller, CPA | DUES | Basic Membership Dues | 115.00 |
| 107 | Ms. Paula D. Caller, CPA | DUES | Basic Membership Dues | 115.00 |
| 107 | Ms. Paula D. Caller, CPA | DUES | Basic Membership Dues | 115.00 |
| 107 | Ms. Paula D. Caller, CPA | DUES | Basic Membership Dues | 115.00 |
| **Count of DUES: 4** | | | | **460.00** |
| **Count of 107: 7** | | | | **510.00** |
| **108** | | | | |
| 108 | Mr. David F. Cookie, Jr. | MEETING | First Conference on Windows for Associations | 50.00 |
| **Count of MEETING: 1** | | | | **50.00** |
| 108 | Mr. David F. Cookie, Jr. | ORDER | Video - Creating a New Business | 78.00 |
| 108 | Mr. David F. Cookie, Jr. | ORDER | Publication - Power Management | 60.00 |
| 108 | Mr. David F. Cookie, Jr. | ORDER | Video - Creating a New Business | 78.00 |
| **Count of ORDER: 3** | | | | **216.00** |
| 108 | Mr. David F. Cookie, Jr. | DUES | Basic Membership Dues | 75.00 |
| 108 | Mr. David F. Cookie, Jr. | DUES | Basic Membership Dues | 75.00 |
| 108 | Mr. David F. Cookie, Jr. | DUES | Basic Membership Dues | 75.00 |
| 108 | Mr. David F. Cookie, Jr. | DUES | PAC Contribution | 20.00 |
| **Count of DUES: 4** | | | | **245.00** |
| 108 | Mr. David F. Cookie, Jr. | Gift | General Distribution | 50.00 |
| **Count of Gift: 1** | | | | **50.00** |
| **Count of 108: 9** | | | | **561.00** |
| **109** | | | | |

#### Summing amounts in reports

In the example above, each Count row includes a sum of the Amount for that line. This happens automatically if your subtotaled query has a Display Property that includes the words **Amount** or **Amt** (the property name is not case-sensitive). You can sum other numerical display properties by giving it an Alias on the Display tab that contains **Amount** or **Amt**.

For example, if your subtotaled query includes the **CsOrders.Balance** property, you can sum the balance for any **Count** rows by changing the Alias to **Balance Amt** or simply **Amount** – both variations work.

## Global layout control for IQA reports

IQA reporting layout is driven by global parameters that you control.

The Report view uses layout parameters stored in the iMIS SystemConfig table, so you can change parameters once (such as to assign corporate colors or A4 paper size) and have all IQA reports conform to your standards across the organization.

**Requirements**

This IQA-based reporting works with all of your queries, old and new. Everything you need for IQA reporting is distributed with iMIS. No additional licensing is needed for the ReportViewer control, which is a Microsoft redistributable component. Nor do you need to install Reporting Services on SQL Server, since the Report Viewer does all the needed processing.

> **Note:** If you see ReportViewer errors, you might have an old ReportViewer control. To get the newer version, search the web for Microsoft Report Viewer Redistributable 2005 SP1 (Full Installation), which is available for free download from several sites.

The optional applications are also free:

- Adobe Acrobat Reader, for opening and printing PDFs (install on workstations)
- SQL Server Business Intelligence Studio, for customizing RDL files externally, if needed

## Understanding IQA

Intelligent Query Architect (IQA) is a query-building tool that extracts data from the iMIS database. IQA simplifies query-building tasks by providing a user-friendly interface that makes it easy for a user with limited SQL experience to build queries and reports.

Use IQA to:

- Display targeted information to users, such as a list of committee members, participation lists on contact account pages, and lists of payments and invoices
- Create reports with the Microsoft SQL Server Reporting Service (SSRS)
- Present queries to users with runtime prompts
- Allow users to create ad hoc, dynamic reports
- Organize data for mailings and letter merges
- Gather data for business analysis

To increase efficiency, you can copy and combine existing queries to define new ones. Users can access IQA queries through various locations within iMIS, but role-based security settings control access to queries and the underlying data.

### Key Features: IQA

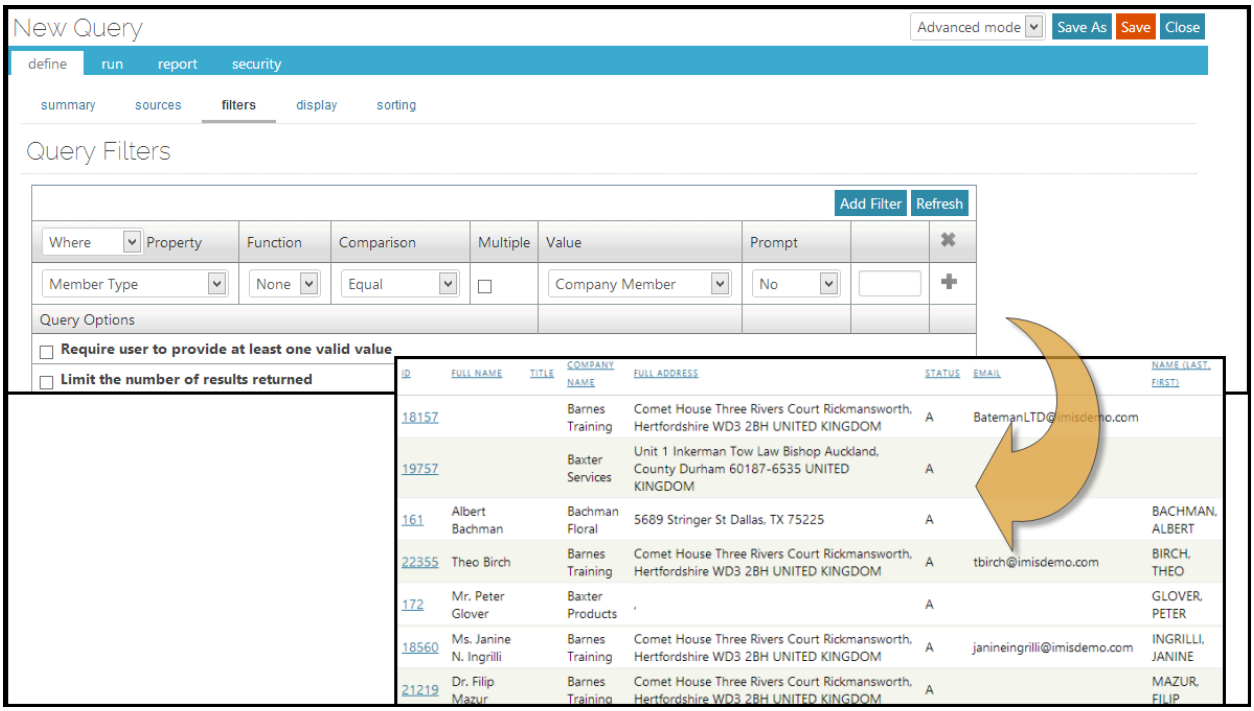
IQA allows you to specify many data display options, including:

- Fields displayed from one or more business objects, including the ability to display concatenated or calculated fields.
- The sort order for displaying rows in a list.
- The selection criteria to locate rows to display, including the ability to prompt the user for runtime criteria. For example, you can specify that the user can enter an invoice number to locate an invoice.
- Which page to display if it is appropriate to show additional information for the record being viewed. For example, you can specify that the Invoice Detail window should open if a user clicks on an invoice number link in the list.

And you can design a query once and use it in many locations throughout the system.

### Task by role: IQA

The tasks a user performs depend on their security authorization. This is role-based. Use the security controls and display options to make sure that the correct query results and also that the access to the results are appropriate for each type of user. Typically, an administrator would set permissions and security, an authorized user would define the query, and a lower-level user would run and export the available queries.




*Example of a query definition and its results*

## Understanding iMIS queries

Queries are a central concept in iMIS. They are used to extract data from the database, but they also drive many application elements. For example, queries are used as the source for many user interface elements, especially for the display of data to users. Queries are also used as sources for reports.

The data sources for queries can be other queries or iMIS Business Objects. Queries can be simple, using a single source; or they can be complex, with multiple sources and different types of joins. For example, a simple query can gather and display all contacts from the province of Ontario. A complex query might organize donors by giving levels and frequency of gifts to generate a detailed report.

Query definitions are stored in the Document System. Access to queries is granted through security settings.

### Outputs

You can generate a variety of outputs from IQA:

- Webpage display – Queries can deliver results in a quick list view (**Run**) or in a formatted webpage that enhances your organization's website.
- Content item display – Queries drive the data displayed to users in many content items. See Displaying query results in content items for details.
- Mail merge file
- Reports – Combine query results with report formats in Microsoft SQL Server Reporting Services (SSRS) to create, access, modify, and share reports.
- File

**Tour: Intelligent Query Architect**

You must have the SysAdmin role and access to the staff site in order to perform this quick tour.

1. In the Staff site, go to **RiSE > Intelligent Query Architect**.
   The Intelligent query architect page appears displaying the full Document System folder tree, filtered to display only query objects.
2. Select **Samples > Staff Home > Members by Region**.
   The IQA page appears.
3. **Sources > Mode**: toggle between **Advanced** mode and **Basic** mode.
   Notice how the **Advanced** mode exposes more functionality.
4. Explore the remaining tabs and task list items.

**Concepts and Terms: IQA**

*Business objects* are collections of self-contained data that represents an entity or process, and shields the physical data. You can use business objects to build the query definition, or you can base the query on an existing query.

Use *joins* to specify which fields are equivalent so the files can relate to each other correctly. The most common joins in iMIS center on member ID numbers.

Store the query in the *Document System*, iMIS's server-side file system.

Define the results display with *content items*, web part controls that allow you to create and edit website content.

**Administering IQA**

### Getting Started with IQA

The steps to set up and use IQA include:

1. Administrator defines security permissions and global settings for queries.
2. An authorized user builds the query definition using Business Object data and/or other queries, with appropriate joins between the data. The user defines the results display or report format and stores the query in the Document System.
3. An end user selects a query and supplies any required parameters. The user runs the query and views the results in a webpage or a report.

### Accessing IQA

In the Staff site, go to **RiSE > Intelligent Query Architect**.

> **Note:** IQA may only be accessed by an administrator or a user who is allowed to set up queries.

## Payments in iMIS

PayPal Express Checkout Integration

Authorizing Credit Cards in iMIS

Authorization Gateways

> **Note:** Note: This document will ask the user to use the iMIS Staff site and the iMIS Advanced Accounting Console to configure and administer payment functionality for iMIS. Also, the user may be asked to access locations outside of both the iMIS Staff site and the iMIS Advanced Accounting Console.

## Payments in iMIS

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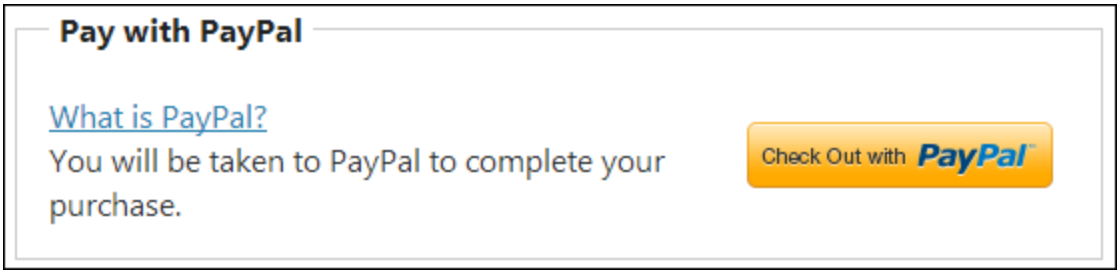
for iMIS. Also, the user may be asked to access locations outside of both the iMIS Staff site and the iMIS Advanced Accounting Console.

## PayPal Express Checkout Integration

If you already accept credit cards online, you can set up Express Checkout with PayPal to integrate with your content item-based sites. This additional payment option is a convenience for your members, customers, registrants, and donors, which means more revenue for your organization. This option also reduces your liability for holding cardholder data, because their credit card information is stored securely at PayPal.

Click to view image

The Pay with PayPal block appears in the Payment Creator content item if you set up a cash account as a PayPal service.




PayPal payments can apply to a full range of items offered in iMIS sites:

- Products and product kits
- Event registrations
- Renewal invoices, for both accrual and cash dues
- Donations

iMIS handles PayPal Express Checkout differently for products that are not shipped:

- Shippable items (products and kits) require a deliverable address, which both iMIS and PayPal verify. iMIS sends the contact's name and address to PayPal, which displays the information on its site for the payer to verify.
- Non-shippable items (renewals, registrations, donations) require no delivery address, so none is sent to PayPal. Because of this, PayPal displays the name and address of the payer that it has on file, which may differ from the name and address stored in iMIS.

Your site visitors can complete transactions quickly and easily without entering credit card information:

1. After adding all items to their cart (or completing a standalone donation), users click Check out with PayPal.
2. They redirect to PayPal and sign in, where they complete their payment:
   - see their payment item details
   - review their shipping info
   - select their method and complete payment
3. PayPal automatically returns the necessary information needed to confirm and fulfill the order. Your customer is returned to your website to view their confirmation.
   You can set up style elements in your PayPal account so that customers will feel comfortable that it is a continuation of their shopping experience from your site.

> **Note:** The Pay with PayPal option is hidden whenever the signed-in user works On Behalf Of another.

**Setting up PayPal Express Checkout**

Once your organization establishes a PayPal Business or Premiere account, you can integrate PayPal Express into iMIS to offer a preferred payment option to your site visitors. Setting this up involves creating your sandbox account with PayPal, creating the PayPal service in iMIS, and testing transactions between iMIS and PayPal.

These resources on the PayPal Developer site (developer.paypal.com) will help your organization implement the service:

- Products > Express Checkout
- Getting Started Guides > Express Checkout API

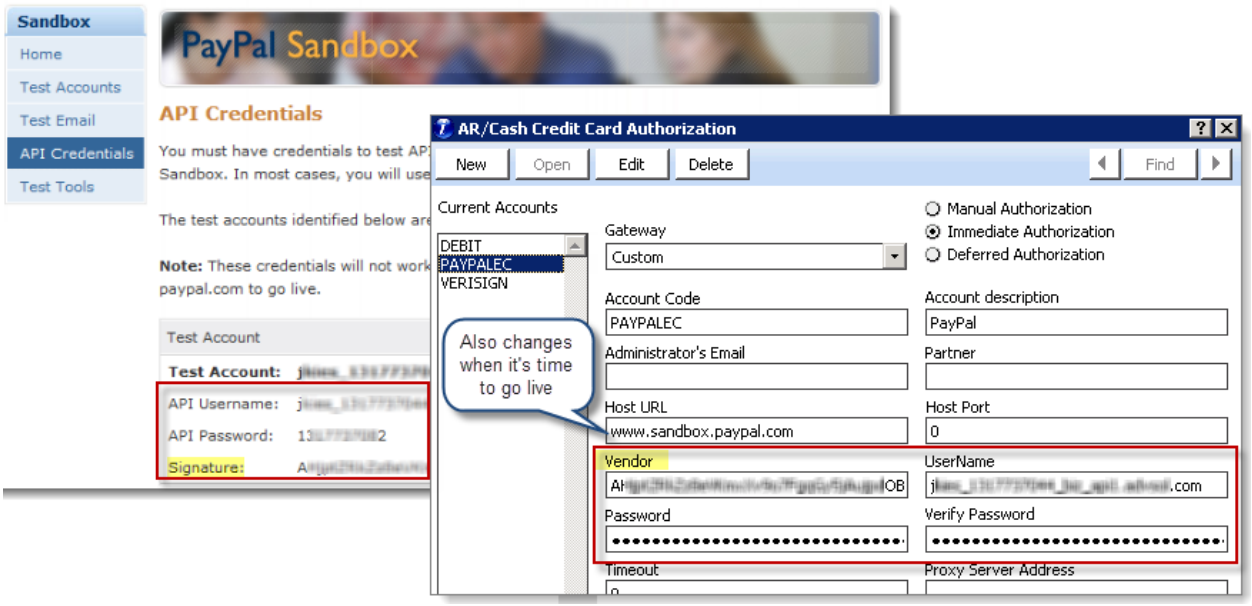
> **Note:** The specified default currency symbol will not be displayed on your iMIS site. If the customer's merchant account is set to a different currency than the default currency set on the iMIS site, then the total that appears on the customer's PayPal site will correspond with the currency that they have set in their merchant account. For more information, see quick setup.

To enable the service with PayPal

1. Sign up for Express Checkout. Log in, or select **Create New Account**.

> **Note:** Express Checkout requires a **Business** or **Premier** account.

2. Set up a PayPal **Sandbox account** to use for testing, with at least two test accounts:
   - A *merchant account* to represent your organization
   - A *personal account* to represent your buyer
3. Sign into your sandbox account, click **API Credentials** to collect the information you need to enter into iMIS to begin your setup and testing:
   Click to view image




To set up PayPal authorization in iMIS

Keep in mind that you will be moving between test (sandbox) mode and live mode, which requires a different **Host URL** and set of PayPal **API Credentials**. Before you begin your iMIS testing, remember that you must be signed in on the PayPal sandbox site.

> **Note:** Keep a separate instance of iMIS configured to use your sandbox settings, for ongoing testing.

1. From Advanced Accounting Console, select **Finance > Options > Configure accounting options**.

2. Click **Credit Card Auth**. Under **Current Accounts**, select **PAYPALEC**.
3. If the PayPal account does not exist, create it:

a. Click **New**.

b. Add a **Custom** gateway with an **Account Code** of **PAYPALEC**, set for **Immediate Authorization**.

4. Set the **PAYPALEC** account values for your organization, and click **Save**.

- In **Host URL**, enter the appropriate PayPal URL: www.sandbox.paypal.com (test) or www.paypal.com (live)
- Enter your organization's values for **Vendor** (the *API Signature* for your PayPal account), **UserName**, and **Password**.

> **Note:** These values are case-sensitive. Also, remove any trailing spaces from these fields.

5. In **Finance > Options > Set up table > Cash accounts**, add a cash account with these features:

- **Code**: PAYPAL
- **Title**: PayPal (exact-case-sensitive)
- **Type**: Service
- **CC Auth Account**: PAYPALEC

6. Add the PayPal method to the Payment Method Set. See Payment method sets for more information.

> **Note:** Your payment method set Display Name for PayPal must exactly match the title: PayPal. If there are any variations, PayPal will not display in the cart.

7. Verify that your **web.config** includes PayPal as a payment gateway provider, and that the authorization account code matches what you defined above:
   <add name="PayPalPaymentGatewayProvider" type-e="Asi.PaymentGateway.PayPalPaymentGatewayProvider, PayPalPaymentGatewayProvider" authorizationAccounts="PAYPALEC" />
8. If you are designing your own checkout pages, be sure that the Payment Creator and Submit Order Button content items are on same page.

To test the PayPal service

**Note:** Open your PayPal sandbox test site.

1. Browse to developer.paypal.com and log in to your Business or Premier account.
2. On your iMIS site, complete a PayPal transaction:

a. Put an item in your cart. When configured correctly, the **Pay with PayPal** panel appears directly above the payment methods drop-down in the Cart and on the Give & Go page.

b. Click **Pay with PayPal**, which redirects to the PayPal site.

c. Log into PayPal with your personal test account, not your business account.

d. Verify that your order details appear on the PayPal site, and click on **Pay Now** to complete the transaction. PayPal redirects you to the confirmation page in iMIS.

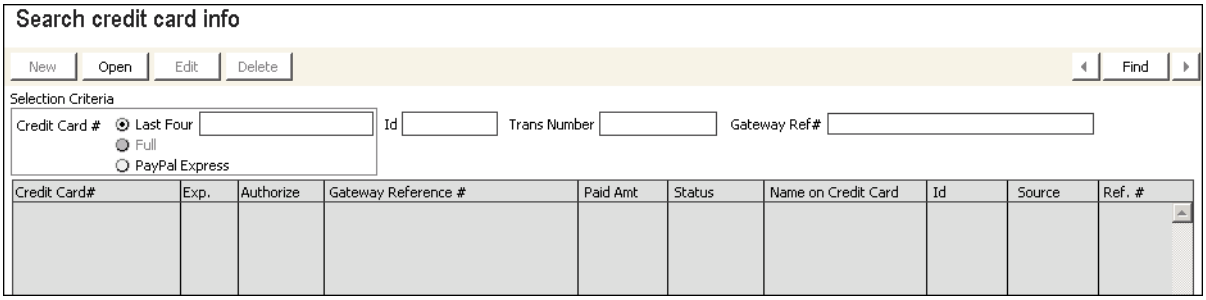
3. Verify that the transaction information was stored correctly in iMIS:

a. In Advanced Accounting Console, go to **Finance > Transactions > Search credit card info**.

b. To find the transaction, specify **PayPal Express**.

c. Enter the iMIS **Id**, **Trans Number**, or **Gateway Ref#**, which contains the Transaction ID that PayPal assigned.

Click to view image




## Restricting payment methods to PayPal only

If you want to switch to accepting payment through PayPal Checkout Express only for public users, you can easily reconfigure iMIS so that the Payment Creator allows payment through PayPal alone.

**Note:** These steps will restrict payment methods to PayPal alone only for public users. Staff users will still see other payment methods as defined in **Finance > Options > Set up tables > Cash accounts**.

To achieve PayPal-only payments, you need to configure iMIS so that PayPal is the only web-enabled cash account. The following is a quick way to achieve this for public users without deleting any existing credit card accounts:

1. **Go to Settings > Commerce > General**.
2. In Advanced Accounting Console, go to **Finance > Options > Set up tables > Cash accounts**.
3. Add a cash account that is a copy of your PAYPAL account, named Z_PAYPAL. This new account must point to your existing PAYPALEC authorization account.
4. View your site and add an item to the cart to verify that Payment Creator is hiding the credit card options.

> **Note:** To re-enable credit card processing, simply repeat the first two steps and restore the value.

### Using PayPal for standalone donations

The Payment Creator content item supports the PayPal Express Checkout panel when it appears outside of the context of the shopping cart, on a standalone donation page. The PayPal integration preserves any entries in the Display Name Editor (List As) and Tribute Gift Editor content items. The PayPal option can enhance your campaign success by giving your site visitors the reassurance of a known and secure payment method.

> **Note:** On contact account pages, the Giving History content item lists donations paid using PayPal as having a Type of Cash.

See Content items for donation features in Creating Dynamic Content Items for details on setting up standalone donations.

### Auditing PayPal payments

To reconcile transactions in your iMIS database with the PayPal Express entries, use the transactions report to obtain the Transaction IDs, Gross and Net amounts, dates, and PayerIDs. On the PayPal site, you can look up a PayerID to identify the purchaser.

To reconcile transactions in your iMIS database with the reports in PayPal, look at the Transaction ID that appears in the Details for an entry on the Overview page.

> **Note:** Keep in mind that it is possible for addresses and even names to differ between iMIS and PayPal for a single Transaction ID. The Transaction ID in the merchant account listing is what pairs the two.

To retrieve audit details from PayPal

1. Log on to paypal.com using your seller account.
2. Select your account and enter the site.
3. Locate the most recent transaction, verifying that the amount matches the order.
4. Click the **Details** link for that line.
5. Click **Unique Transaction ID #** that appears next to the text **Express Checkout Payment Received**.
6. In Advanced Accounting Console, look up the values as appropriate:

- **Go to Orders > Open an order > Payments tab**, Gateway Ref#
- **Events > Register a customer > Open a registration > Payments tab**, Gateway Ref#
- **AR/Cash > Credit card reporting > Search CC Info**, any combination of iMIS ID, iMIS Trans ID, and Gateway Ref#
- (for future release) **AR/Cash > Generate Reports > Credit Card > Credit Card Post Authorization Report (Crystal)** returns the results for CC Auth Acct of PayPal (which is tied to cash accounts with a type of Service).

### Refunding PayPal payments

Refunding customer payments always involves iMIS Advanced Accounting Console, where you cancel out the payments and issue refunds. When PayPal is the payment method, refunds must be made using PayPal as well.

> **Note:** The only time that both iMIS and PayPal process payments automatically is when they are first entered by customers on your site. Any subsequent transactions affecting that payment must be entered manually into both PayPal and iMIS Advanced Accounting Console.

Reversing a PayPal payment (such as to remove payment for a registration) require the following two steps:

1. PayPal: Log in to PayPal and process the refund using PayPal's standard procedures.
2. Advanced Accounting Console: Go to Finance > Transactions > Cash receipts and create a new payment to cancel the prior one:

- Enter the following:
- ID
- PayPal cash account (typically PayPal) in the Check/CC field
- Negative payment amount
- Apply the negative payment to the original transaction:
- Edit the transaction.
- Enter a negative amount in the Amt Paid field, so that it has a balance due.

If the transaction will not be paid by another method and you need to reverse the original purchase, use the normal procedures to cancel a registration/order/donation.

### Authorization Gateways

iMIS supports these gateway options for credit card authorization:

- **Payflow Pro** offered by PayPal, (previously Verisign), based in the United States
- **SafePay** offered by TNS, based in Australia and focused on international sales
- **TNSPay** offered by TNS, focused on international sales
- **Moneris** offered by Moneris Solutions, based in Canada and focused on Canadian sales
- **Custom gateways** which you can create using ASI-supplied code and documentation

All gateway options work with the PCI Compliance options (see Implementing Advanced PCI Compliance options) available in AR/Cash Setup.

> **Note:** If Advanced PCI Compliance **> Do not retain cardholder information** is enabled, iMIS saves transactions without cardholder data and shows only gateway reference number and authorization code fields.

### Applying for a merchant bank account

You must apply for a merchant bank account. The merchant bank is where all the credit card transactions are verified. You can find a list of financial institutions using the

authorization gateway website. However, before contacting a merchant bank, check with your bank to see if it is compatible with the authorization gateway.

Every organization accepting online credit card transactions must have a merchant account with an acquiring financial institution.

The acquiring financial institution deposits the daily credit card sales into the merchant's account after deducting applicable fees. Some acquiring financial institutions perform merchant services in-house; others outsource these functions to a third-party processor. These services may include billing, customer service, reporting, authorization, and settlement services for merchants. A third-party processor is a company that provides credit card services to merchants on behalf of acquiring financial institutions.

### Implementing Payflow Pro as an authorization gateway

**Note:** Payflow Pro authorizes credit card transactions up to $9,999.00.

Before you go live

1. Ensure you have set up card authorization in iMIS.
2. Register with the Payflow Pro card authorization gateway.
3. Verify your registration setup.
4. Apply for a merchant bank account at a financial institution.
5. Submit and review test transactions.
6. The acquiring financial institution approves the application and notifies the authorization gateway.
7. Switch from test mode to live mode.
8. The default currency code must be specified in order for iMIS to pass the correct currency values to Payflow Pro. See quick setup.

This process generally takes 2 to 4 weeks to complete.

To register for a Payflow Pro gateway

You must set up an account with PayPal (previously, VeriSign) for your Payflow Pro card authorization gateway. Set up your account by going to the PayPal website at www.paypal.com.

> **Note:** Please make a note of your user login and password. You will need it to configure iMIS and to view reports on the PayPal website. ASI Technical Support does not have access to this information.

> **Note:** When setting up an account for a non-US currency, you may encounter some errors when testing your transaction. In that case, create a support ticket by going to https://paypal.com/mts.

> **Note:** When opening an Australian Dollar account, go here.

To set up a Payflow Pro card authorization account

1. In Advanced Accounting Console, go to **Finance > Options > Configure accounting options**. Click **Credit Card Auth**.

   > **Note:** For **Credit Card Auth** to display, you need a relevant license, such as **CCAuth** or **Service Central**.

2. Click **New**.
3. Select **Payflow Pro** from the **Gateway** drop-down list.

   > **Note:** Once you save a card authorization account, you cannot change the **Gateway** field.

4. Specify the authorization type: **Manual**, **Immediate**, or **Deferred**.
5. Enter an **Account Code**, which will appear in the **Select a Value** window that opens for lookup on the **CC Auth Account** field on the **Set up cash accounts** window.

   > **Note:** Once you save a card authorization account, you cannot change the **Account Code** field.

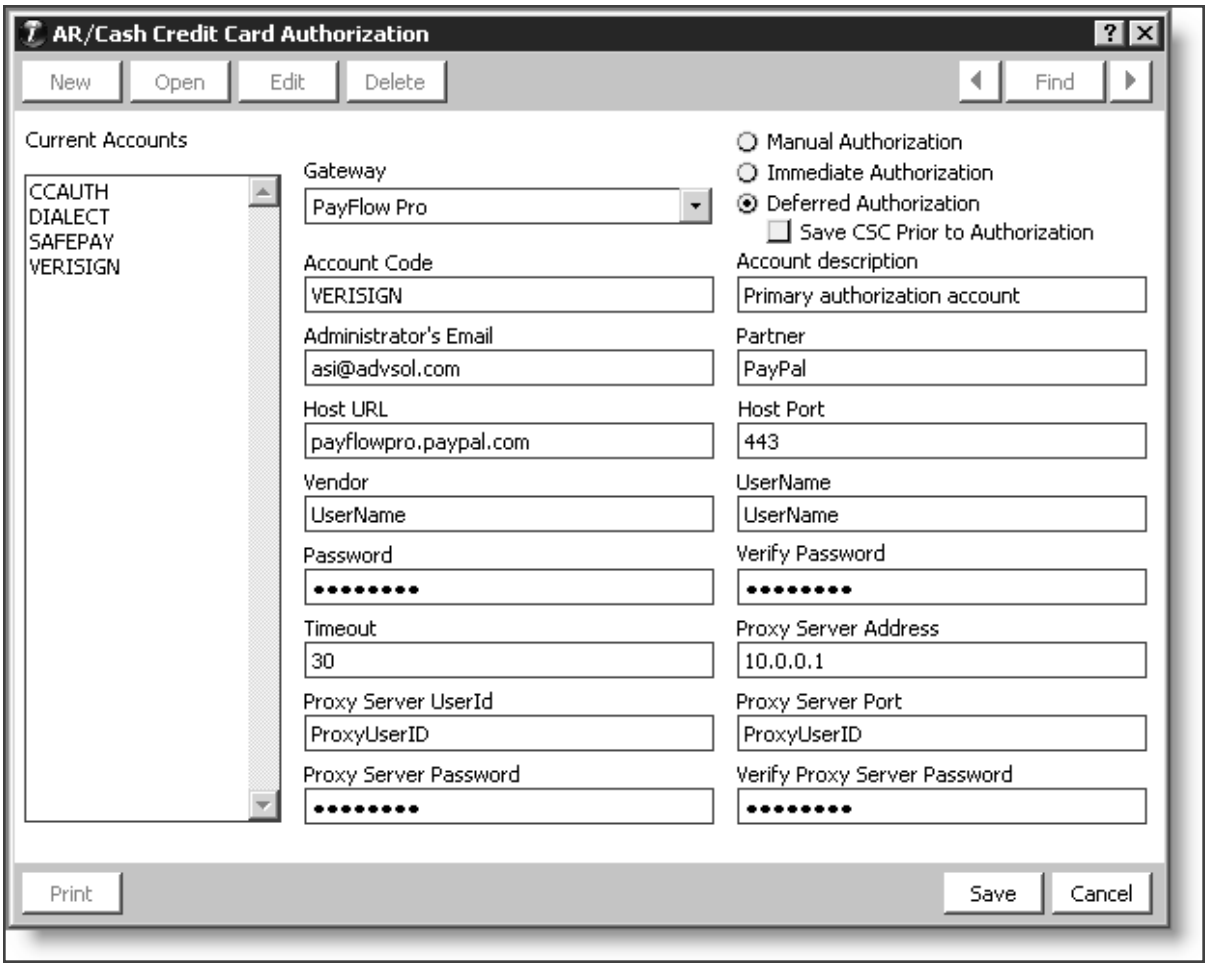
6. Enter an **Account description**, which will appear under the **CC Auth Account** field on the **Set up cash accounts** window.
7. Enter the **Administrator's Email**.

8. Enter the **Partner** value supplied in your account information.
9. In the **Host URL** field, enter the test or live mode:
   - **Test mode**: pilot-payflowpro.paypal.com
   - **Live mode**: payflowpro.paypal.com

> **Warning!**
>
> Do not go live without first setting the Host URL to test mode to verify the registration.

10. Enter 443 in the **Host Port** field.
11. Enter the values created during the Payflow Pro sign-up process:
    - Enter the **UserName** in the **Vendor** field.
    - Enter the **UserName** in the **UserName** field.
    - Enter the **Password** in the **Password** field and in the **Verify Password** field.
12. Enter 30 in the **Timeout** field. This is a recommended value.
13. If you are using a proxy server, enter the values as supplied by your network administrator:
    - **Proxy Server Address**
    - **Proxy Server UserId**
    - **Proxy Server Port**
    - **Proxy Server Password**
    - **Verify Proxy Server Password**
14. Click **Save**.
15. Repeat the steps for each account.
16. Restart iMIS.

    Click to view image




Troubleshooting

- If you do not restart iMIS after creating a new account, all transactions will have an authorize code of DEFER even if you enabled the **Immediate Authorization** option.
- You cannot delete a card authorization account that has been assigned a cash account.
- If you change the **CC Auth** account for a cash account (from one gateway to another or to a different account on the same gateway) and attempt to edit or delete transactions that were created earlier in the day before the change of the CC Auth account, there may be undesirable results, particularly if the CC Auth account was changed to a Payflow Pro account.

To associate an authorization account with a credit card cash account code

Before you can use card authorization you must set up credit card cash accounts on the **Set up cash accounts** window:

1. In Advanced Accounting Console, go to **Finance > Options > Set up tables > Cash accounts**.
2. Select a code to edit from the **Current Cash Accounts** list.
3. Click **Edit**.
4. Enter a **CC Auth Account** or click the lookup icon to select a value.
5. Click **Save**.

Editing and deleting credit card payments

PayPal transaction entries are generated with a captured status. You can edit or delete payment transactions if the changes are made on the same day. If the transaction has already been charged to the credit card, an error will be reported.

iMIS assumes that authorizations are captured every night, so the changes are only allowed if it is done on the same system date as the authorization. However, the system date may not be the same as the batch date or the transaction date.

> **Note:** Deferred payments have not been authorized and can be edited without restriction.

UNKNOWN and DECLINED Payflow Pro transactions

If you encounter an **UNKNOWN** status, check the Payflow Pro website to verify the transaction exists there. If the transaction does not exist there, delete the transaction from iMIS. If the transaction does exist there, run the following statement:

```
Update Trans
Set CC_STATUS=' ', CC_AUTHORIZE=' ',DESCRIPTION=' '
Where TRANS_NUMBER = XXXX and
TRANSACTION_TYPE = 'PAY'
```

To select **UNKNOWN** or **DECLINED** transactions, run the following statement:

```
Select BT_ID,AMOUNT,TRANSACTION_TYPE,CC_STATUS,CC_
AUTHORIZE,DESCRIPTION
From Trans
```

Where TRANSACTION_TYPE = 'PAY' and CC_STATUS <> '' and DESCRIPTION <> ' ' and CC_AUTHORIZE in ('DECLINED','UNKNOWN')

For additional information on Payflow Pro integration, see the Payflow Pro developer's site.

### Implementing SafePay as an authorization gateway

Before you go live

**Note:** Allow two to four weeks to complete this process.

1. Ensure you have set up card authorization in iMIS (see Setting up card authorization).
2. Apply for a merchant bank account at a financial institution. The acquiring financial institution approves the application and notifies the SafePay authorization gateway.
3. Register with SafePay (see Registering with SafePay) and obtain a test account with a payment server, Merchant ID, certificate files, payment host URL, and login/password for the payment administration web interface.
4. Verify your registration setup.
5. Install Java Virtual Machine and Java Runtime Environment (see Installing Java Runtime Environment for SafePay.)
6. Set up a SafePay Payment Client (see **To set up a SafePay payment client**).
7. (iMIS Desktop only) Submit and review test transactions in iMIS (see To test immediate SafePay authorization).
8. Test PaymentClient (see Example: Testing immediate authorization) outside of the iMIS environment.
9. Set up a SafePay card authorization account (see To set up a SafePay card authorization account).
10. Associate a credit card cash account code (see To associate a card authorization account with a credit card cash account code).
11. Switch from test mode to live mode.

**Warning!**

Transactions processed through SafePay cannot be edited or deleted.

> **Note:** For SafePay-based accounts, the authorization and capture scheme is configured on the payment server, based on the requirements of the merchant bank. This means that transactions may not be captured automatically, depending on the configuration of the account. For accounts that are not set up for automatic capture, in order to perform the captures for transactions submitted for the account, you must log in to the SafePay administration interface and perform the captures manually.

Registering with SafePay

You must register with SafePay (TNS/QSI/Dialect) to obtain the account information you need.

1. Contact SafePay for the Service Agreement and Registration form.
2. Contact your bank for Internet Merchant ID (Terminal ID) for the SafePay (Dialect) Internet Credit Card Gateway.
3. Complete the registration form and contact the SafePay HelpDesk. They will set up the account for you and provide you with a merchant key.
4. Via email, SafePay will send you your account information:

- Merchant ID
- certificate files
- login/password
- payment host
- payment host URL

Installing Java Runtime Environment for SafePay

SafePay (TNS/Dialect) requires the Java Runtime Environment (JRE) to be installed:

- To run the **Payment Server**, install JRE 1.3.1 or higher on your iMIS application server.
- Before setting up the **PaymentClient**, install JRE 1.3.1 or higher.
  You can download the current JRE version from java.com.

To set up a SafePay payment client

To accept SafePay payments through iMIS Web or Public views, you must install the SafePay client software on the appserver itself, which does the processing for the

gateway. Perform the following steps on Advanced Accounting Console:

1. Obtain the setup files from SafePay or ASI Technical Support and copy them to a temporary local directory.
2. (Windows 2008) To install the client on Windows 2008, disable **Data Execution Prevention (DEP)** for everything except **System Processes**.
3. (Windows 2003) Change the setup file's properties to run as compatible with Windows 2000 (right-click the file, select **Properties**, and select the **Compatibility** tab).
4. Run the setup as directed by SafePay.
5. Restart your machine when the installation successfully completes.
6. Verify the settings in your **setup.properties** file, as directed by SafePay.
7. (optional) To test PaymentClient outside of iMIS, in the **CardNumbers.profile** file, ensure that any expiryDate values match the expiration dates of any test credit card numbers provided to you by SafePay.

To test the SafePay client outside of iMIS

You can test the SafePay client, PaymentClient, outside of the Advanced Accounting Console environment. Be sure to adjust your PaymentClient settings so that the test card numbers will be authorized:

1. Locate the **\config** directory within the **\PaymentClient** installation directory.
2. Edit the **CardNumbers.profile** file.
3. Ensure that any **expiryDate** values match the expiration dates of any test credit card numbers provided to you by SafePay.

To test immediate SafePay authorization

1. Before you test, make sure that you are licensed in iMIS for credit card authorization (CCAUTH) and that the Immediate Authorization option is selected on the **AR/Cash Credit Card Authorization** window (in Advanced Accounting Console, go to **Finance > Options > Configure accounting options**. Click **Credit Card Auth**).

Use the following credit card numbers for testing purposes:

- Master Card: 5123 4567 8901 2346 (05/13)
- VISA: 4987 6543 2109 8769 (05/13)
- American Express: 3456 7890 1234 564 (05/13)
- Diners Club: 3012 3456 7890 19 (05/13)

2. In Advanced Accounting Console, go to **Finance > Transactions > Cash receipts**.
3. Click **New**.
4. When entering a payment, enter one of the test credit card codes in the **Check/CC** field. A **CC #** and additional data entry fields display.
5. Enter the test credit card number in the **CC #** field.
6. If required, enter a Card Security Code in the **CSC** field.
7. Enter an expiration date in the **Exp** field.
8. Enter the name on the credit card in the **Name on CC** field. This need not be the same as the customer name.
9. Enter a dollar amount in the **Payment Amount** field.
10. Click **Save**. The **Authorize** field displays a status code of either a deferred status (**DEFER**), a unique authorization code (if your financial institution returns an authorization code), or DECLINED or UNKNOWN if the credit card is not authorized by SafePay. In addition, if you entered a value in the **CSC** field, the field is now blank because iMIS automatically deletes the value once the transaction has been submitted.

Installing for SafePay and document attachment publishing

When an unsecured PDF, DOC, TXT, RTF, or HTML is attached to a post the content of that file will be searched when a general search is performed. The results will link back to the parent document where the attached document is located.

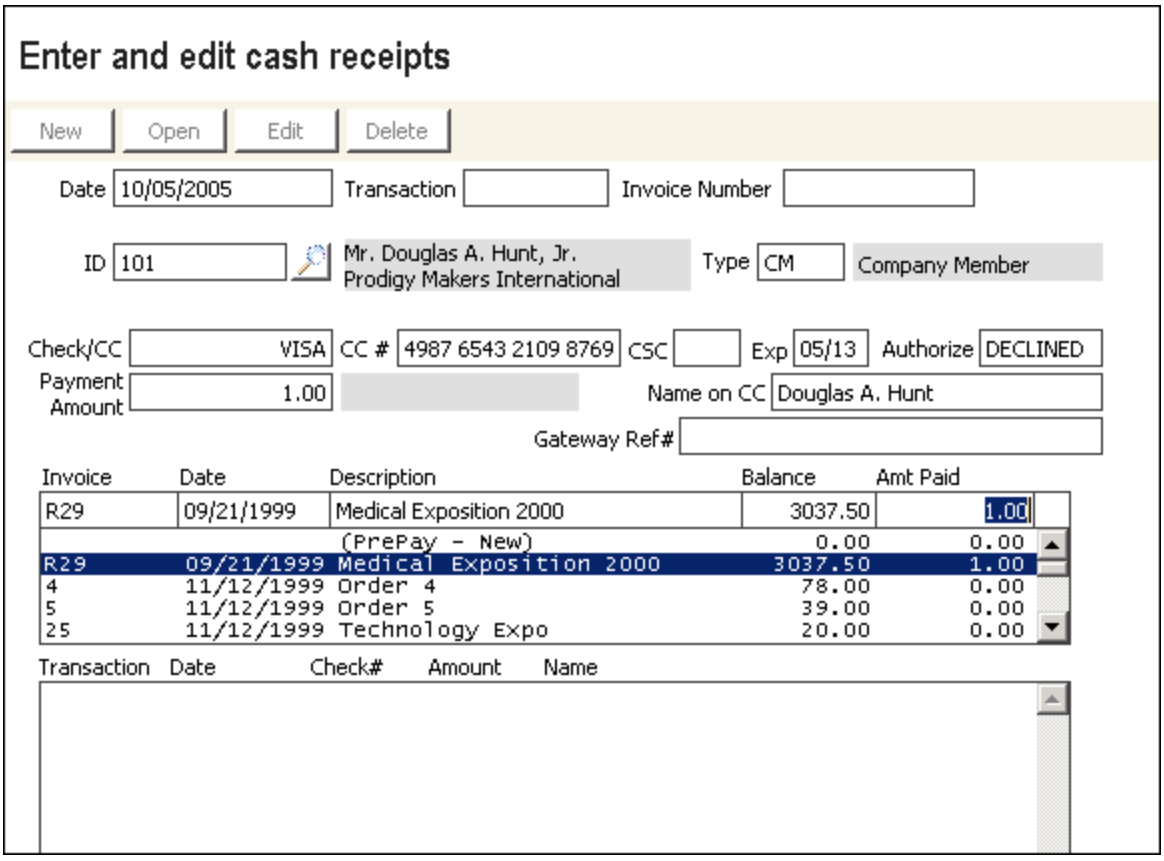
Java Runtime Environment (JRE) must be installed in order for document attachments to be searchable.

> **Note:** If your financial institution does not return unique authorization codes, the **Authorize** field will contain **null**.

> **Note:** The criteria for authorization depend upon the policy of the acquiring financial institution.

Click to view image

Testing immediate credit card authorization with CCAuth



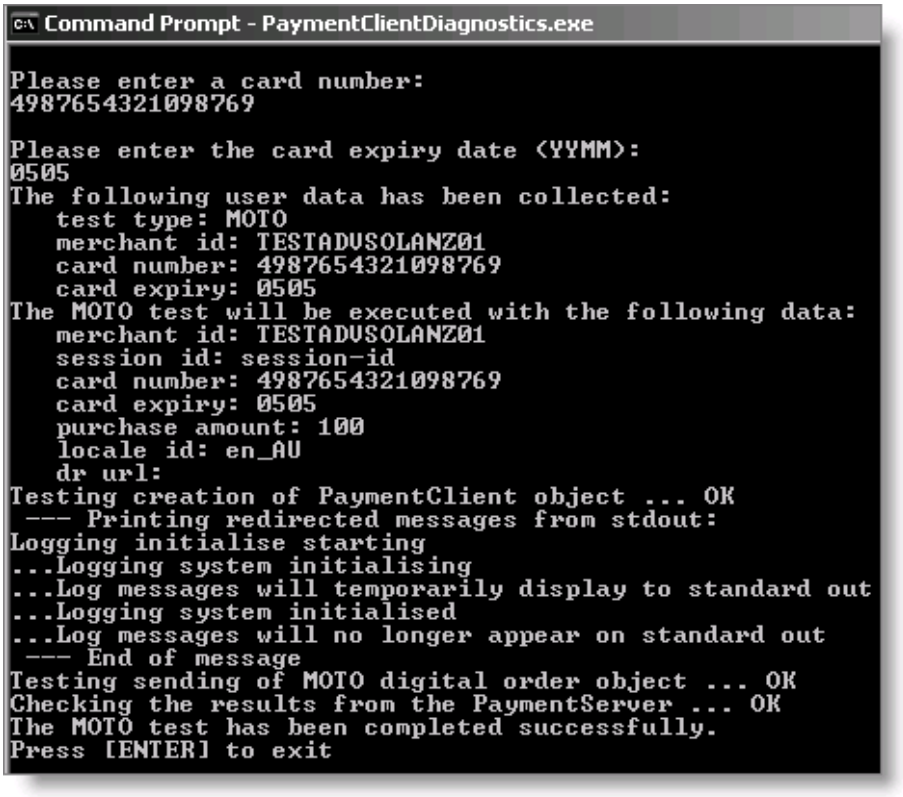

Example: Testing immediate authorization

This example tests SafePay connections using the command line test tool provided with the payment client. Check with your gateway provider for the latest testing tools and procedures.

1. Ensure the service is running. Go to **Start > Control Panel > Administrative Tools > Services**.
2. Look for **Dialect PCService** in the Service Console, and ensure that it is **Started**.
3. Test connectivity by selecting **Start > Programs > Dialect > PaymentClient > Test Payment Client**. The Payment Client Diagnostics program retrieves and displays client configuration information and prompts you to enter transaction information.
4. Select **1** for **MOTO**.
5. Enter the **Merchant ID** provided with your account information.
6. Select a credit card number or enter Z to enter another credit card number.
7. Enter the credit card expiration date (format: YYMM). The diagnostic program tests the PaymentClient configuration and displays test results on the screen.

Click to view image

Example of a successful test transaction




To set up a SafePay card authorization account

1. In Advanced Accounting Console, go to **Finance > Options > Configure accounting options**. Click Credit Card Auth.

   **Note:** For **Credit Card Auth** to display, you need a relevant license, such as **CCAuth** or **Service Central**.

2. Click **New** and select **SafePay** from the **Gateway** drop-down list.

   **Note:** When editing card authorization accounts, you cannot modify the values for the **Gateway** or **Account Code** field.

3. Enable the **Manual Authorization**, **Immediate Authorization**, or **Deferred Authorization** option.

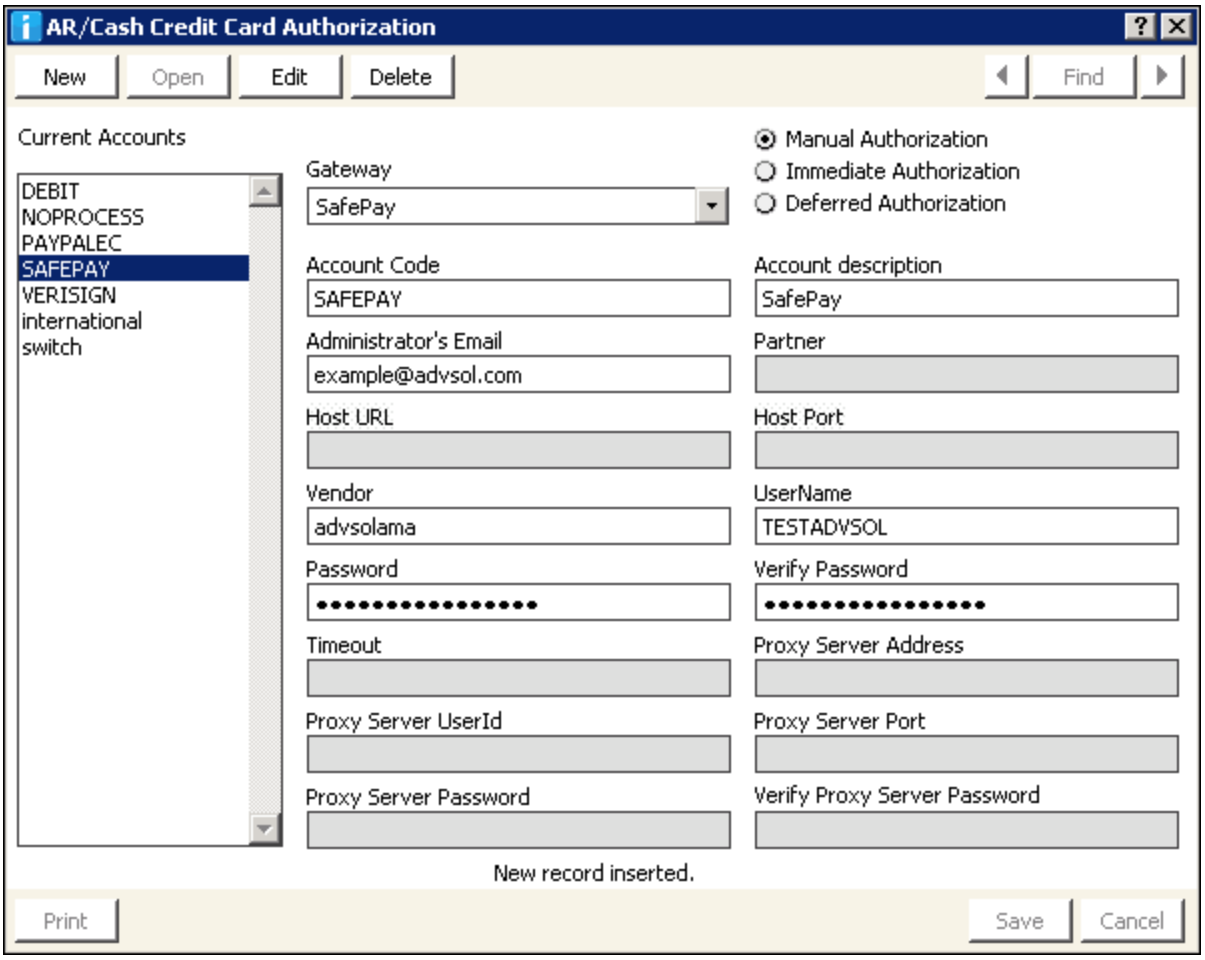
4. Enter an **Account Code**. This value displays in the **Select a Value** window that opens when you click the lookup icon on the **CC Auth Account** field on the **Set up cash accounts** window. This value cannot be changed once the record is saved.

   > **Note:** When editing card authorization accounts, you cannot modify the values for the **Gateway** or **Account Code** field.

5. Enter a description for the account in the **Account description** field. If you enter a value in this field, it displays as read-only data under the **CC Auth Account** field on the **Set up cash accounts** window.
6. Enter the **Administrator's Email**.
7. (optional) Enter the Merchant Administration login (username) you were given in the **Vendor** field.
8. Enter the Merchant ID obtained during set up in the **UserName** field.
9. Enter the Merchant Administration password you were given in the **Password** and **Verify Password** fields.
10. Click **Save**.
11. Restart iMIS.

Click to view image

Configuring QSI Authorization




**Note:** If you do not restart iMIS after creating a new account, all transactions will have an authorize code of **DEFER** even if you enabled the **Immediate Authorization** option.

**Note:** You cannot delete a card authorization account that has been assigned a cash account.

**Note:** Transactions processed through QSI cannot be edited or deleted.

**Note:** If you change the CC Auth account for a cash account (from one gateway to another or to a different account on the same gateway) and attempt to edit or

> delete transactions that were created earlier in the day before the change of the CC Auth account, there may be undesirable results, particularly if the CC Auth account was changed to a VeriSign account.

To associate a card authorization account with a credit card cash account code

Before you can use card authorization you must set up credit card accounts on the **Set up cash accounts** window:

1. In Advanced Accounting Console, go to **Finance > Options > Set up tables > Cash accounts**.
2. Select a code to edit from the **Current Cash Accounts** list.
3. Click **Edit**.
4. Enter a **CC Auth Account** or click the lookup icon to select a value.
5. Click **Save**.

Managing SafePay transactions

With SafePay, you cannot edit or delete existing transactions or enter refunds (enter payments with negative amounts).

The authorization and capture schema is configured on the payment server, based on the requirements of the merchant bank. This means that transactions might not be captured automatically, as it depends on the configuration of the account.

For accounts that are set up for automatic capture, you must log in to the administration interface and capture the transactions manually in order to perform the captures for transactions submitted for the account.

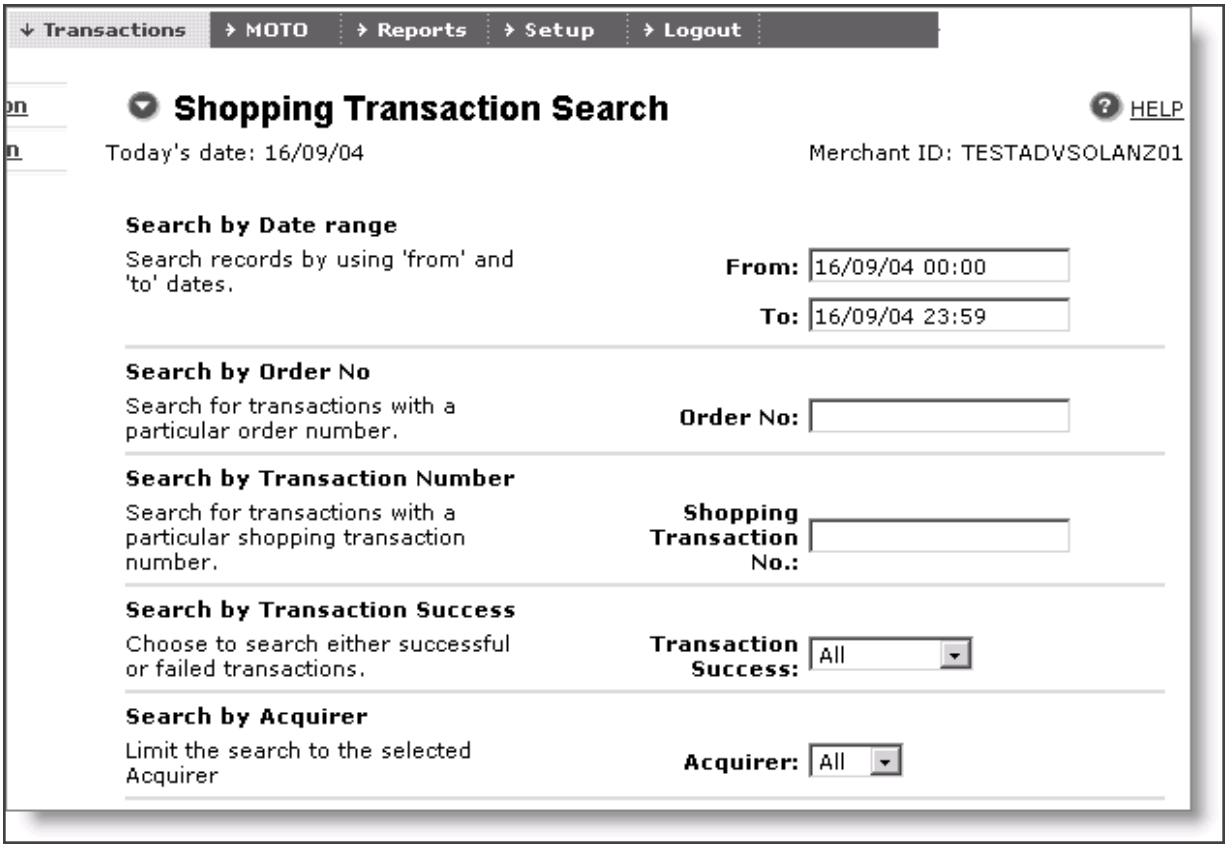
> **Note:** Regardless of the authorization/capture schema, iMIS creates all Trans entries for SafePay-based transactions with the Trans.CC_Status column value = 'C' (in the same manner as Payflow Pro).

To view submitted transactions

1. Go to the merchant account site.
2. Enter your merchant ID, login, and password.
3. Select the Transactions menu. A window similar to the following is displayed:

4. Click to view image

   Go to https://secure.dialectsolutions.com/DPS/MA




### Implementing Moneris as an authorization gateway

Before you go live with card authorization, you must complete these implementation steps and checks. You will need a merchant account with Moneris. As a developer, you will also need a copy of the Moneris SDK, documentation, tools, and a test account with test card numbers. Make sure your test account credentials work properly.

To implement a Moneris authorization gateway

1. Ensure you have set up card authorization in iMIS (see Setting up card authorization).
2. Apply for a merchant bank account at a financial institution. The acquiring financial institution approves the application and notifies the Moneris authorization gateway.
3. Register with Moneris and obtain a test account with a payment server, Merchant ID, certificate files, payment host URL, and login/password for the payment administration web interface.

4. Verify your registration setup.
5. Set up a Moneris card authorization account (see To set up a Moneris credit card authorization account).
6. Associate a credit card cash account code (see To associate a card authorization account with a credit card cash account code)

To set up a Moneris credit card authorization account

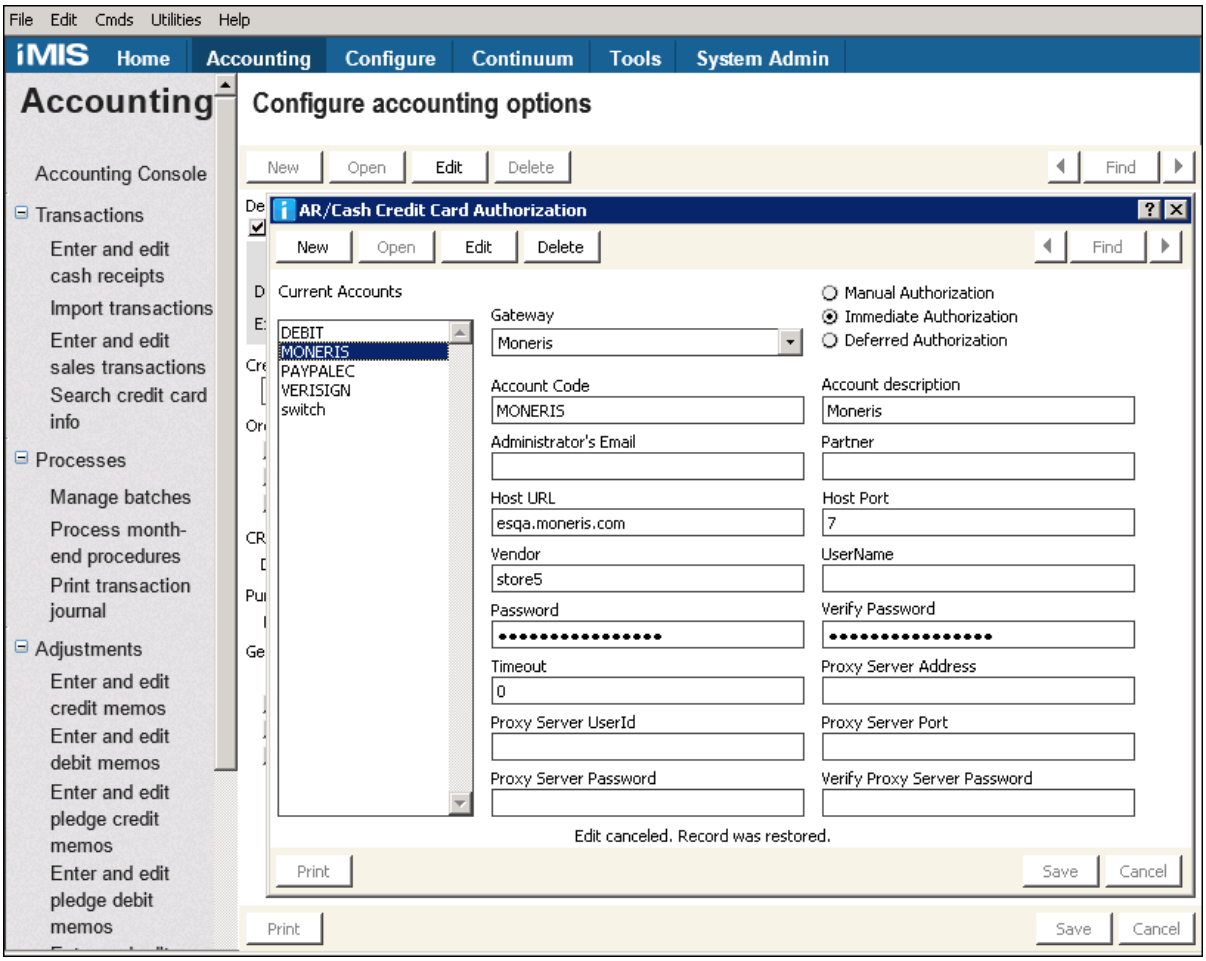
To configure iMIS to work with Moneris, you must setup a credit card authorization account.

1. In Advanced Accounting Console, go to **Finance > Options > Configure accounting options**.
2. Click **Credit Card Auth**.

> **Note:** For **Credit Card Auth** to display, you need a relevant license, such as **CCAuth** or **Service Central**.

3. Click **New**.

Click to view image




4. Select **Moneris** from the **Gateway** drop-down.
5. Select the **Immediate Authorization** option.
6. Enter an **Account Code**. This value displays in the **Select a Value** window that opens when you click the **Find** icon in the **CC Auth Account** field on the **Set up cash accounts** window. This value cannot be changed once the record is saved. Your values may vary depending on your account info with Moneris.
7. Enter a description for the account in **the Account description** field. If you enter a value in this field, it displays as read-only data under the **CC Auth Account** field on the **Set up cash accounts** window.
8. (optional) Enter the **Administrator's Email**.
9. In the **Vendor** field, enter the Store ID you were provided by Moneris.
10. In the **Username** field, enter the merchant number you were provided by Moneris.

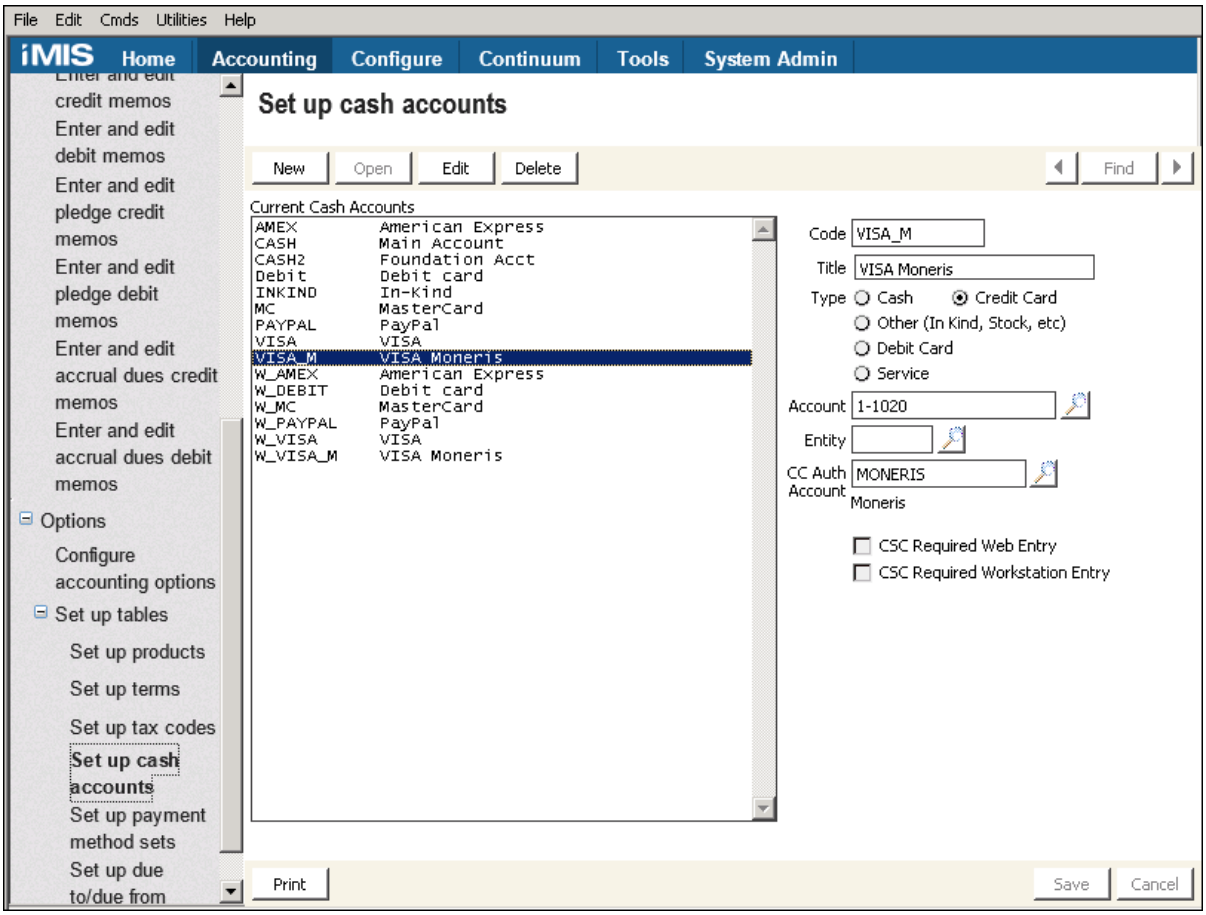
11. In the **Password** and **Verify Password** fields, enter the API token (password) you were provided by Moneris.
12. Click **Save**.
13. Restart iMIS.

To associate a card authorization account with a credit card cash account code

Before you can use card authorization with Moneris, you must set up credit card accounts on the Set up cash accounts window:

1. In Advanced Accounting Console, go to **Finance > Options > Set up tables > Cash accounts**.
2. Add credit cards as needed for use with Moneris to **Current Cash Accounts**:
   - Click **New** to add a new card.
   - Click **Edit** to edit an existing card.
3. Select Moneris from the **CC Auth Account** dropdown for the card.

Click to view image




4. Click **Save**.

To modify the web.config file for Moneris with the credit card gateway

In order to accept credit card payments in the Public view or any content items website, you must add the Gateway Account Code to your **web.config** file. This must be updated in the **iMIS_Public** folder if you are using the iMIS Public view, or the **NET** folder if you are using any website containing content items. If you do not make this change, you will receive the following error message:

> An error occurred while processing a payment. Payment gateway was not found to match the associated authorized account

Do the following:

1. In Advanced Accounting Console, go to **Finance > Options > Configure accounting options**.
2. Click **Credit Card Auth**.
3. Take note of the **Account Code** for Moneris.
4. On your application server, open the **web.config** file located in your **iMIS_Public** folder if you are using the iMIS Public view, or the **Net** folder if you are using any website containing content items.
5. Search for **AuthorizationAccounts**. The code should look similar to the following:

```
<add name="PayFlowProPaymentGatewayProvider" type-
e="Asi.PaymentGateway.PayflowProPaymentGatewayProvider, Pay-
flowProPaymentGatewayProvider"
authorizationAccounts="VERISIGN,PaymentTech,PAYFLOWPRO" />
```

6. Place the following snippet in the **web.config** file before the closing </providers> tag. Note that the MONERIS authorization account matches the MONERIS CC auth account:

```
<add name="MonerisPaymentGatewayProvider" type-
e="Asi.PaymentGateway.MonerisPaymentGatewayProvider, Mon-
erisPaymentGatewayProvider" authorizationAccounts="MONERIS"/>
```

7. Restart IIS. Your credit cards should work in iMIS Public view or any content items website.

Managing Moneris transactions

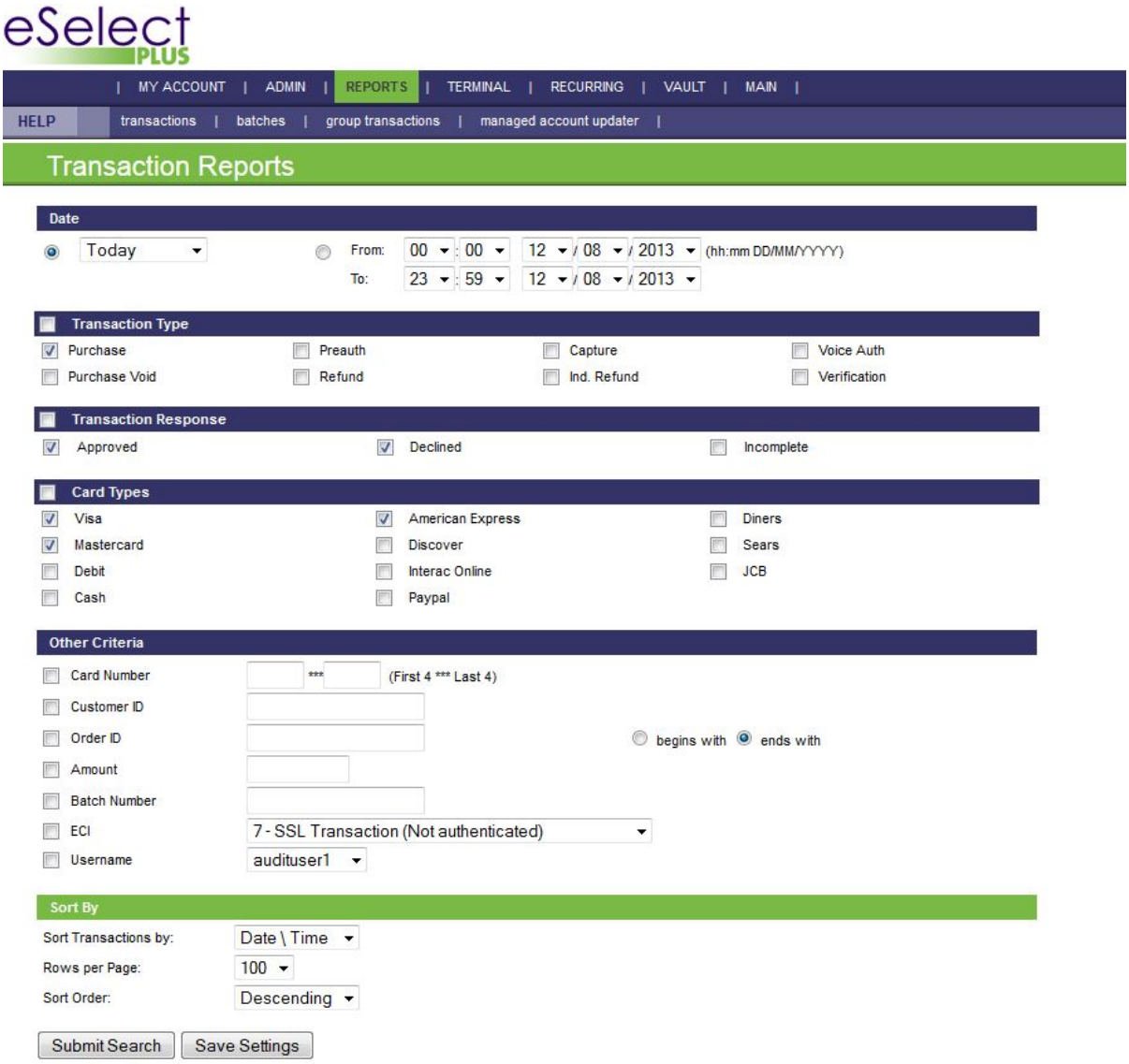
> **Note:** Regardless of the authorization/capture schema, iMIS creates all transaction entries for Moneris-based transactions with the Trans.CC_Status column value = 'C' (in the same manner as SafePay and Payflow Pro).

To view submitted transactions

1. Go to the merchant account site.
2. Click **Login**.
3. Enter your **Username**, **Store ID**, and **Password**.
4. Click **Submit**.
5. Go to **REPORTS > Transactions**. A window similar to the following is displayed:

Click to view image

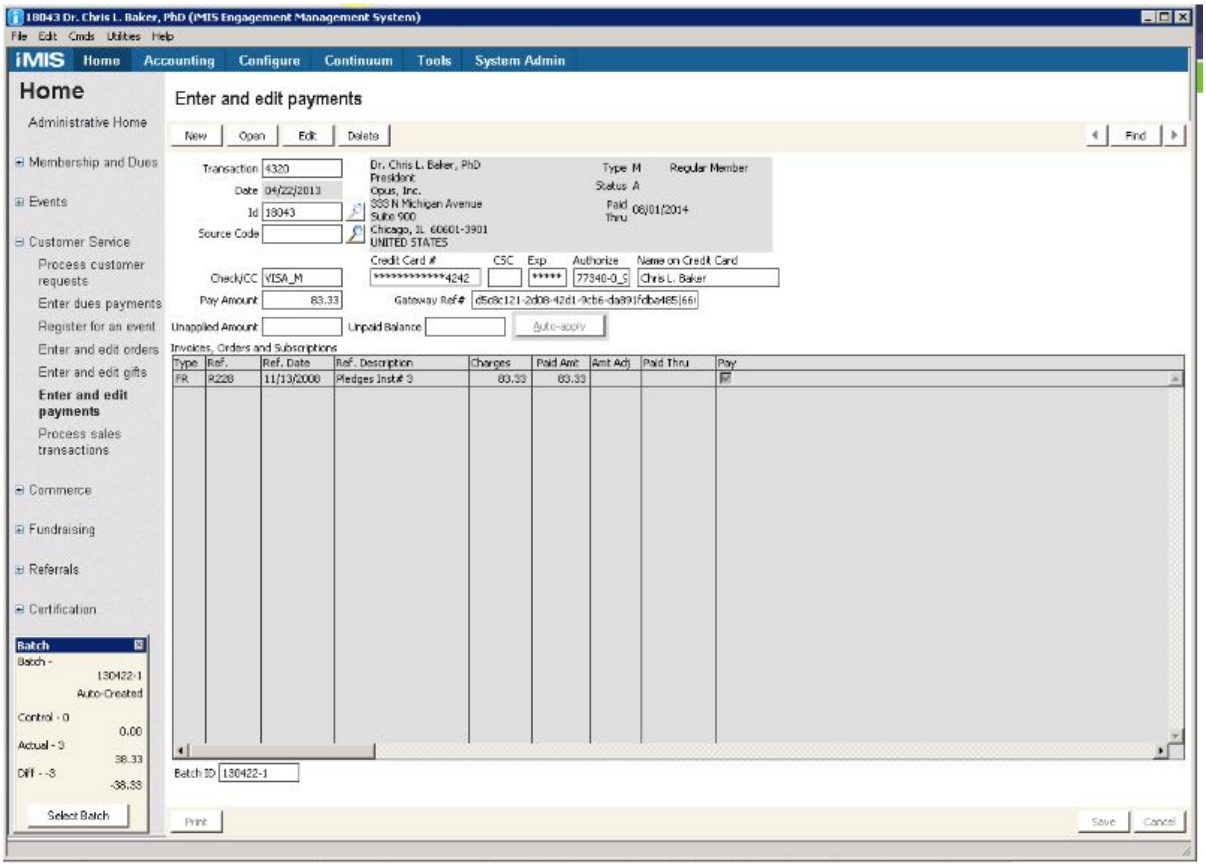
From this window, you can run and view reports for recent transactions.



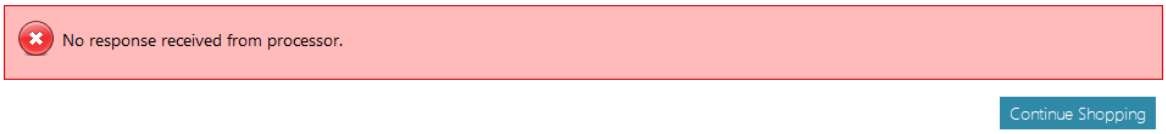

## Troubleshooting the installation for Moneris

Moneris returns Authorization codes and Gateway Reference numbers as shown in the following image. The Gateway Reference can be used to match up against the Order Number on the Moneris admin site.

Click to view image




- If Moneris is not installed or is installed incorrectly (for example, if there is no CCAuthAcct row or Cash_Account row in the database), you will not see it as an available option in the Gateway drop-down.
- Other kinds of misconfigurations, such as using the wrong URL or vendor, will result in the following message:
- Click to view image




- If Moneris transactions are failing to process, it may be helpful for you to create a log file of them to test and debug:

1. Create an **ASIMonerisOCX.log** file in the ASI/iMIS directory where the client is deployed. This log file will capture debugging information for Moneris payment transactions.

2. Process some additional transactions and reopen the log. Examine the log file for information about why the transactions failed.

> **Warning!**
>
> Once you've determined the reasons for the failure, remove the log file. If you don't remove it, the log file will continue to grow in size with each transaction processed.

- You cannot delete a card authorization account that has been assigned a cash account.
- If you change the CC Auth account for a cash account (from one gateway to another, or to a different account on the same gateway) and attempt to edit or delete transactions that were created earlier in the day before the change of the CC Auth account, there may be undesirable results, particularly if the CC Auth account was changed to a Payflow Pro account.

**Implementing TNSPay as an authorization gateway**

Before you go live with card authorization, you must complete these implementation steps and checks. You will need a merchant account with TNSPay. As a developer, you will also need access to the TNSPay documentation and a test account with test card numbers. Make sure your test account credentials work properly.

A TNSPay Merchant account is configured for a specific payment processing model, either Authorization+Capture, or Purchase. You will need to know which payment model your Merchant account supports. iMIS supports the use of multiple TNSPay Merchant accounts in a single installation.

To implement a TNSPay authorization gateway

1. Ensure you have set up card authorization in iMIS (see Setting up card authorization).
2. Apply for a merchant bank account at a financial institution. The acquiring financial institution approves the application and notifies the TNSPay authorization gateway.
3. Register with TNSPay and obtain a test account with a payment server URL, Merchant ID, Integration password, and login/password for the payment administration web interface.
4. Verify your registration setup.

5. Set up a TNSPay card authorization account (see "To set up a TNSPay credit card authorization account ").
6. Associate a credit card cash account code (see " To associate a card authorization account with a credit card cash account code")

To set up a TNSPay credit card authorization account

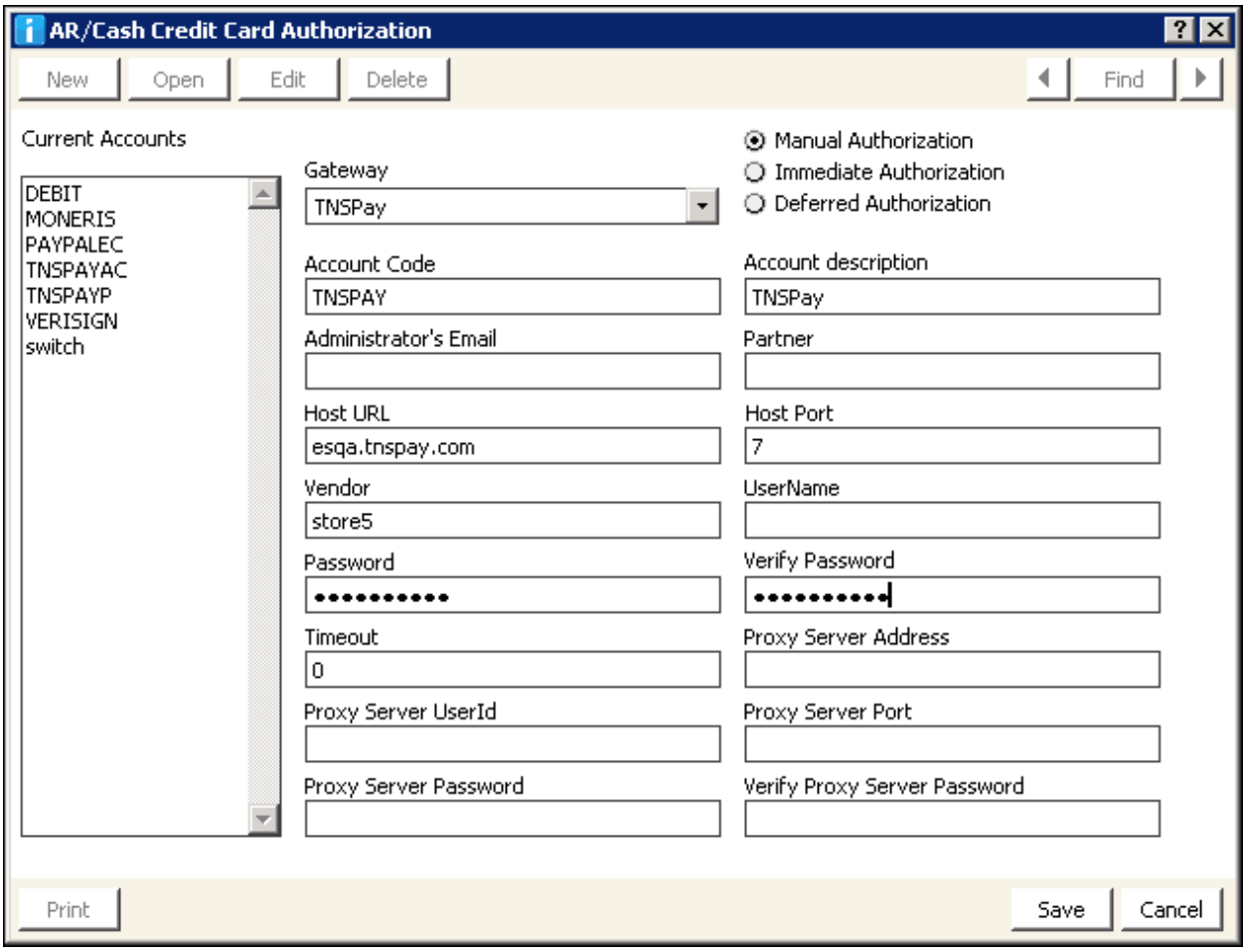
To configure iMIS to work with TNSPay, you must setup a credit card authorization account.

1. In Advanced Accounting Console, go to **Finance > Options > Configure accounting options**.
2. Click **Credit Card Auth**.

> **Note:** For **Credit Card Auth** to display, you need a relevant license, such as **CCAuth** or **Service Central**.

3. Click **New**.

Click to view image




4. Select **TNSPay** from the **Gateway** drop-down.
5. Select the **Immediate Authorization** option.
6. Enter an **Account Code**. This value displays in the **Select a Value** window that opens when you click the **Find** icon in the **CC Auth Account** field on the **Set up cash accounts** window. This value cannot be changed once the record is saved. Your values may vary depending on your account info with TNSPay.
7. Enter a description for the account in the **Account description** field. If you enter a value in this field, it displays as read-only data under the **CC Auth Account** field on the **Set up cash accounts** window.
8. (optional) Enter the **Administrator's Email**.
9. In **Host URL** field, enter the URL of the payment gateway service, for example, **secure.n-a.tnspayments.com**.
10. In the **Vendor** field, enter the Merchant ID you were provided by TNSPay.

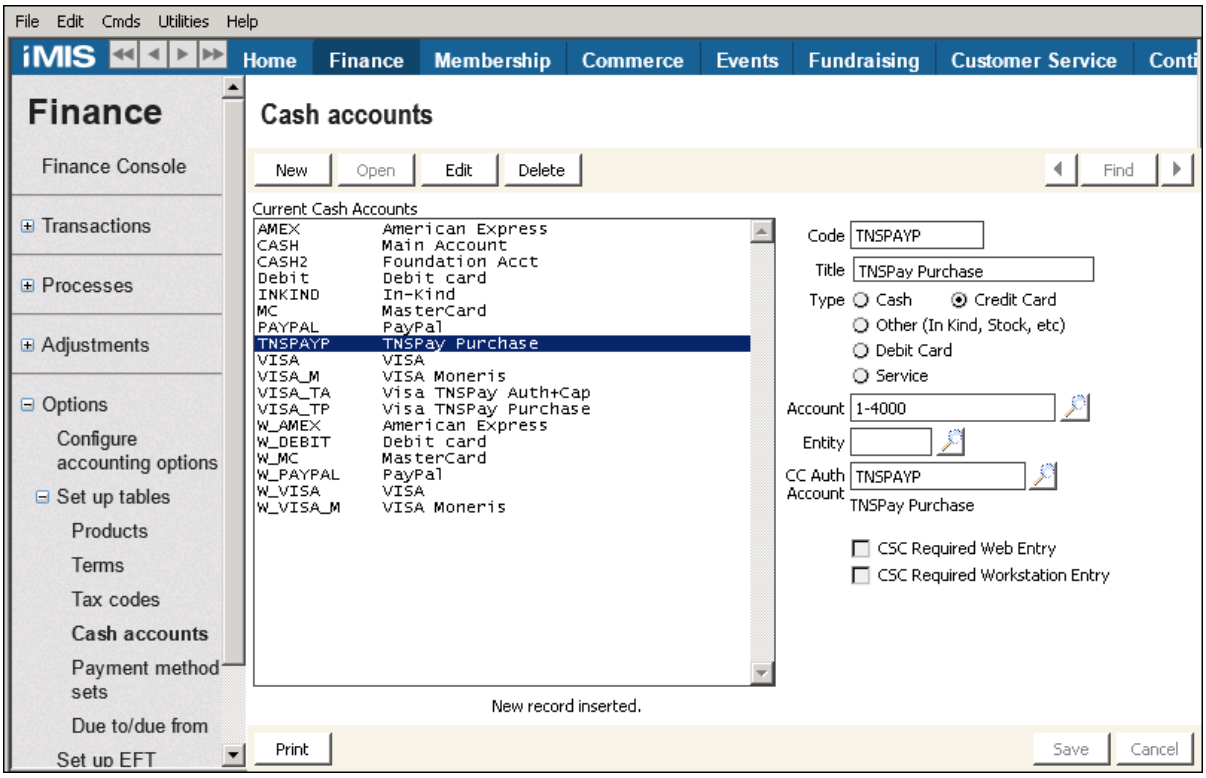
11. In the **UserName** field, enter a code to specify the payment model of the merchant account. For Authorize+Capture, enter **AC**. For Pay (also known as Purchase), enter **P**. If no value is entered or the value is not recognized, then **P** is assumed.
12. In the **Password** and **Verify Password** fields, enter the Integration authentication password you were provided by TNSPay.
13. Click **Save**.
14. Restart iMIS.

To associate a card authorization account with a credit card cash account code

Before you can use card authorization with TNSPay, you must set up credit card accounts on the Set up cash accounts window:

1. In Advanced Accounting Console, go to **Finance > Options > Set up tables > Cash accounts**.
2. Add credit cards as needed for use with TNSPay to **Current Cash Accounts**:
   - Click **New** to add a new card.
   - Click **Edit** to edit an existing card.
3. Select the relevant TNSPay Authorization account from the **CC Auth Account** dropdown for the card.

   Click to view image




4. Click **Save**.

To modify the web.config file for TNSPay with the credit card gateway

In order to accept credit card payments in the website, you must add the Gateway Account Code to your **web.config** file. This must be updated in the **NET** folder if you are using any website containing content items. If you do not make this change, you will receive the following error message:

> An error occurred while processing a payment. Payment gateway was not found to match the associated authorized account

Do the following:

1. In Advanced Accounting Console, go to **Finance > Options > Configure accounting options**.
2. Click **Credit Card Auth**.
3. Take note of the **Account Code** for TNSPay.

4. On your application server, open the **web.config** file located in the **Net** folder if you are using any website containing content items.
5. Search for **AuthorizationAccounts**. The code should look similar to the following:

```
<add name="PayFlowProPaymentGatewayProvider" type-
e="Asi.PaymentGateway.PayflowProPaymentGatewayProvider, Pay-
flowProPaymentGatewayProvider"
authorizationAccounts="VERISIGN,PaymentTech,PAYFLOWPRO" />
```

6. Place the following snippet in the **web.config** file before the closing </providers> tag. Set the value in the authorizationAccounts attribute to the Account Code of the credit card authorization account you created earlier. You can specify multiple authorization accounts delimited by commas:

```
< add name="TnsPayPaymentGatewayProvider" type-
e="Asi.PaymentGateway.TnsPayPaymentGatewayProvider, TnsPayPay-
mentGatewayProvider" authorizationAccounts="TNSPAY"/>
```

7. Restart IIS. Your credit cards should work in your content items website.

Managing TNSPay transactions

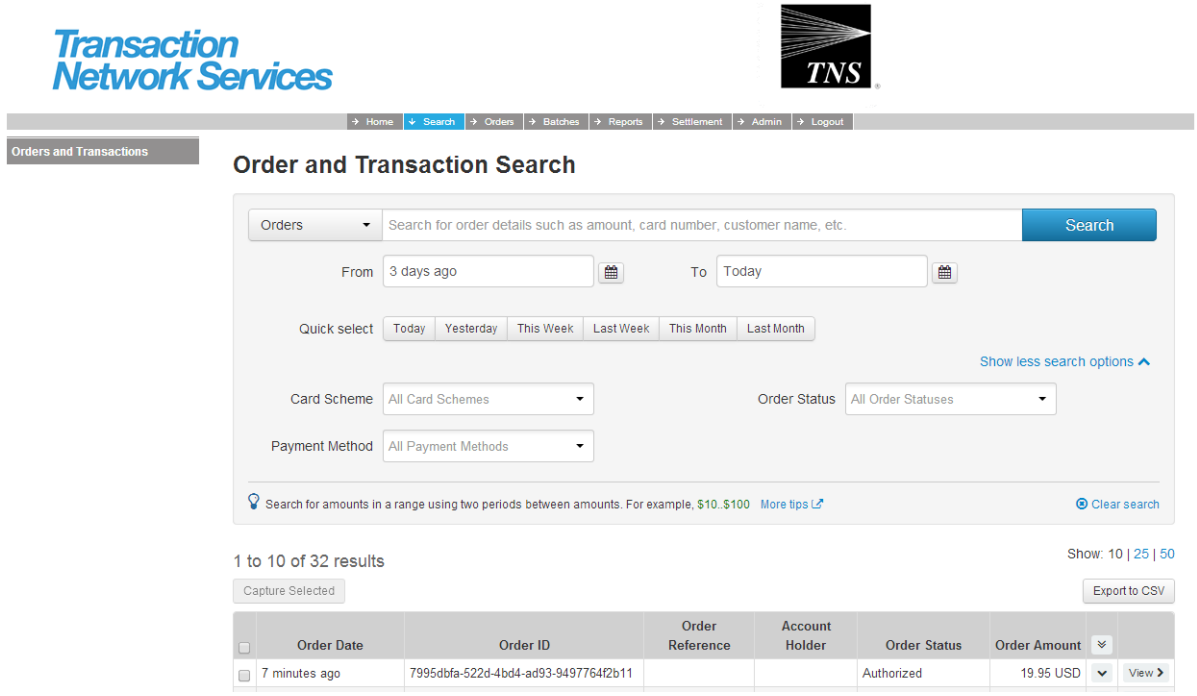
> **Note:** Regardless of the authorization/capture schema, iMIS creates all transaction entries for TNSPay-based transactions with the **Trans.CC_Status** column value = '**C**' (in the same manner as SafePay and Payflow Pro).

To view submitted transactions

1. Go to the merchant admin portal https://secure.na.tnspayments.com/ma.
2. Enter your **Merchant ID**, **Operator ID**, and **Password**.
3. Click **Log In**.
4. Go to **Search**. A window similar to the following is displayed:

Click to view image

From this window, you can run and view reports for recent transactions.

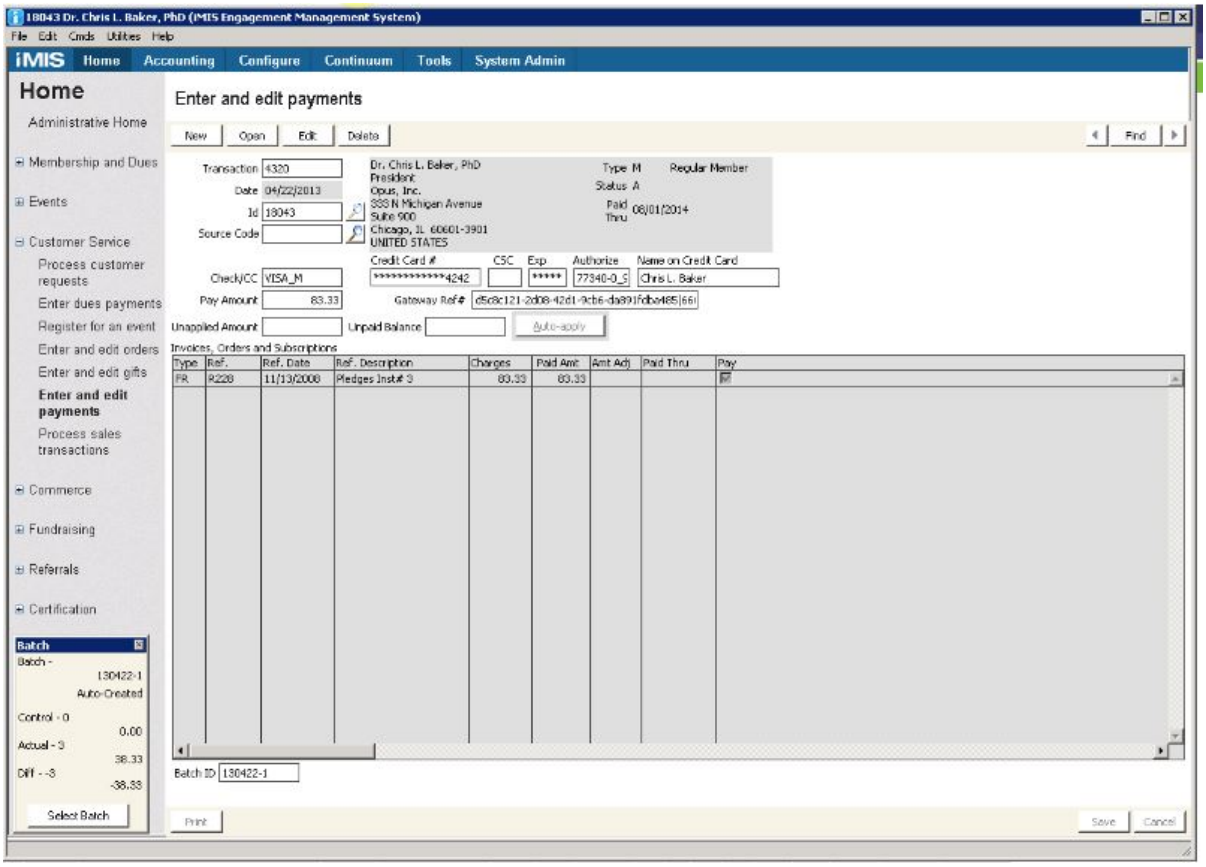



Troubleshooting the installation for TNSPay

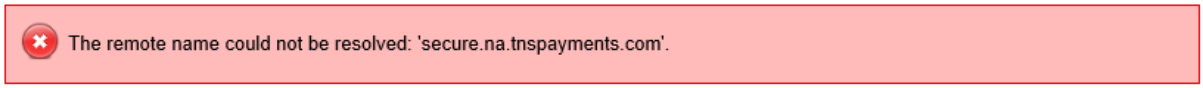
Click to view image

- TNSPay returns Authorization codes and Gateway Reference numbers as shown in the following image. The Gateway Reference can be used to match up against the Order Number on the TNSPay admin site.

Click to view image




- If TNSPay is not installed or is installed incorrectly (for example, if there is no CCAuthAcct row or Cash_Account row in the database), you will not see it as an available option in the **Gateway** drop-down.
- Other kinds of misconfigurations, such as using the wrong URL, will result in the following message:
  Click to view image







If TNSPay transactions are failing to process, it may be helpful for you to create a log file of them to test and debug:

1. Create an ASITnsPayOCX.log file in the ASI/iMIS directory where the client is deployed. This log file will capture debugging information for TNSPay payment transactions.
2. Process some additional transactions and reopen the log. Examine the log file for information about why the transactions failed.

> **Warning!**
>
> Once you've determined the reasons for the failure, remove the log file. If you don't remove it, the log file will continue to grow in size with each transaction processed.

- You cannot delete a card authorization account that has been assigned a cash account.
- If you change the CC Auth account for a cash account (from one gateway to another, or to a different account on the same gateway) and attempt to edit or delete transactions that were created earlier in the day before the change of the CC Auth account, there may be undesirable results, particularly if the CC Auth account was changed to a Payflow Pro account.

**Creating a custom credit card gateway**

If you choose not to use Payflow Pro, Moneris, TNSPay or SafePay, you can create a custom credit card gateway. The same connection parameters that are available for a Payflow Pro gateway are also available for a custom gateway. This includes all of the authorization modes and settings on the **AR/Cash Credit Card Authorization** window.

- **iMIS Web views**: A .NET developer can write a custom gateway for the web views of iMIS. Templates and documentation are available from iMIS Community's SDK Center.
- **Advanced Accounting Console**: An Xtender developer can use Visual Basic to write a custom gateway for Advanced Accounting Console. Templates and documentation are available from the iMIS Support community under Extension Products. Instructions for customizing the gateway are in the documentation and the control files. The Xtender developer must define and carefully document which of the fields should be populated, if any, and for what purpose.

  Installing a custom credit card authorization gateway

  Before implementing a custom gateway, the developer must install the new application in a test environment. The application must be installed on each Advanced Accounting

Console workstation from which payments are entered.

After the custom gateway application is installed you must:

1. Create a new Credit Card Authorization account (see Setting up a custom credit card authorization account) (**AR/Cash > Set up module > Credit card authorization**).
2. Set up a Cash Account (**AR/Cash > Set up table > Tables > Cash Accounts**) for a Type, Credit Card or Debit Card, that uses the newly defined Credit Card Authorization account.

Setting up a custom credit card authorization account

To configure iMIS to use an Xtender application that a developer has created for a custom credit card gateway (see Creating a custom credit card gateway), you must setup a credit card authorization account.

> **Note:** Only two fields are required for the custom gateway: **Account Code** and **Account Description**. The remaining fields are available for connection parameters. Your developer can use the data entered to these fields for other purposes, or not at all.

> **Warning!**
>
> The labels on the fields may not correspond to the data you need to enter. Check with your developer to find out whether these fields require special data for the custom gateway.

1. In Advanced Accounting Console, go to **Finance > Options > Configure accounting options**. Click **Credit Card Auth**.

> **Note:** For **Credit Card Auth** to display, you need a relevant license, such as **CCAuth** or **Service Central**.

2. Click **New**.
3. Select **Custom** from the **Gateway** drop-down list.
4. Enable the **Immediate Authorization** or **Deferred Authorization** option.

5. Enter an **Account Code**. This value displays in the **Select a Value** window that opens when you click the **Find** icon in the **CC Auth Account** field on the **Set up cash accounts** window. This value cannot be changed once the record is saved.
6. Enter a description for the account in the **Account description** field. If you enter a value in this field, it displays as read-only data under the **CC Auth Account** field on the **Set up cash accounts** window.
7. Click **Save**.

Troubleshooting the installation for custom gateway

If the custom gateway application is not installed or is installed incorrectly on Advanced Accounting Console, the transaction will fail. When a user attempts to save a payment transaction that is dependent on the custom gateway, the authorization process will time out for that transaction. iMIS informs the user that the payment cannot be authorized because the gateway application is not installed correctly.

- This message is presented first.

  > Custom Gateway not properly installed
  > The payment type entered for this transaction requires a Custom Gateway for credit card authorizations. The custom gateway is not properly installed on this workstation.
  > The authorization for this payment transaction will time out.
  > Please contact your system administrator or the developer of your custom gateway application before processing payments using the specified payment type.

- **Note:** An error message identifier, **nCCAuthOnly_Custom**, at the bottom of this message informs Technical Support that this is not an iMIS issue.

- After the user clicks **OK** in the **Custom Gateway not properly installed** message box, a standard iMIS warning is provided.

  > The authorization process timed out. Please contact your system administrator.

## Authorizing Credit Cards in iMIS

Card authorization is the process of obtaining payment authorization when a credit/debit card transaction is entered. Credit/debit card transactions can be authorized across these

areas of iMIS:

- **AR/Cash**: Sales transactions and cash receipts windows
- **Billing**: Dues and subscriptions payments
- **Fundraising**: Gifts, pledges, and fundraising payments
- **Service Central**: Payment entries
- **Public view**: Events registration and order entry

Card Authorization allows you to search by card number or customer ID to find credit/debit card transactions throughout iMIS.

> **Note:** If Advanced PCI Compliance options > **Do not retain cardholder information** is enabled, iMIS saves transactions without cardholder data and shows only gateway reference number and authorization code fields.

### Card authorization requirements

iMIS ships with the card authorization and Service Central modules. To use card authorization in iMIS, you need the CCAUTH license key. You also need a high-speed Internet connection to handle a high volume of transactions.

To use card authorization, you must:

1. Set up a **merchant account** at your bank or another financial institution.
2. Set up a **payment processing account**. Your payment processor must be supported by your payment gateway service. If you are doing business outside of the United States, use a payment processor that handles international currencies.
3. Register with a **payment gateway service** and install additional gateway software as required. iMIS natively supports **Payflow Pro** (see Implementing Payflo Pro as an authorization gateway), offered by PayPal, (previously Verisign), and **SafePay** (see Implementing SafePay as an authorization gateway), offered by TNS), which handles international sales, and **TNSPay** (see Implementing TNSPay as an authorization gateway), offered by TNS), which handles international sales, and **Moneris** (see Implementing Moneris as an authorization gateway), offered by Moneris Solutions, based in Canada and focused on Canadian sales.

**Note:** European debit card transactions in iMIS cannot be processed with either gateway. Instead, your AiSP must implement a custom gateway interface.

**Note:** iMIS Payment gateways are compatible with all cards that can be processed as credit.

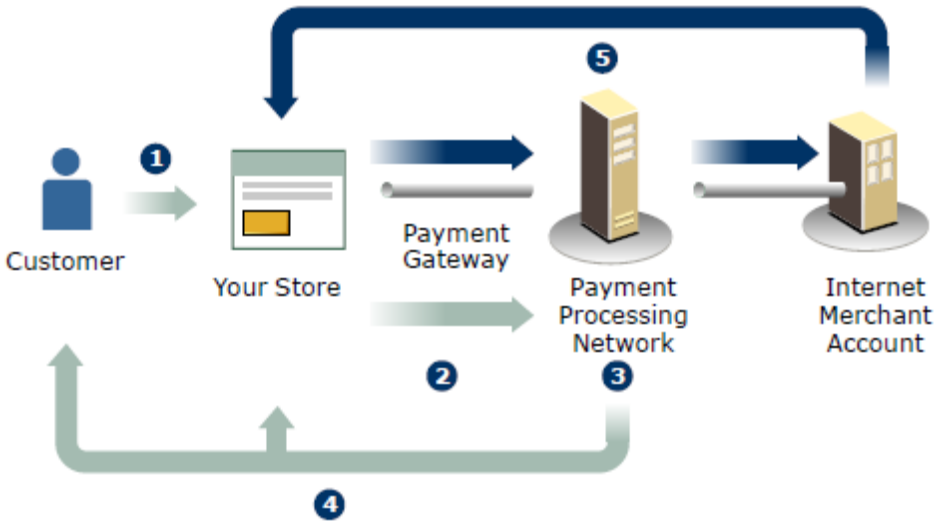
Before you take any of these steps, you should understand what card authorization is and how it works.

The card authorization process

Card authorization allows you to accept a credit/debit card payment from a customer and, within a matter of seconds, have the card transaction approved over the Internet by your bank. You also have the option of having transactions deferred for authorization at a later time.

Click to view image

Diagram and steps from PayPal




Credit card authorization includes the following steps:

1. A customer purchases a product or service from a store.
2. The payment gateway encrypts data and securely sends it through the payment processing network.
3. The transaction is reviewed for authorization or decline, and the results are sent back through the payment gateway.
4. The customer receives a confirmation receipt and the order is fulfilled.
5. Once the transaction is processed, funds are transferred from the customer's bank account to the merchant bank account.

Card authorization terms

Before you get started, it is a good idea to become familiar with some of the terms that are used throughout this section. The following is a list of some of the most commonly used terms.

Acquiring financial institution

An acquiring financial institution is a bank or other financial organization that contracts with banks and merchants to allow merchants to accept card transactions. Some financial institutions perform merchant services; others outsource these services to a third-party processor.

Authorization

An authorization is an electronic request for approval of the sale that is sent to the financial institution that issued the customer's credit/debit card. Authorization options in iMIS include Manual, Immediate, and Deferred. Manual is the default authorization setting.

Batch (CC Auth)

A batch is an accumulation of card transaction authorizations that are awaiting settlement.

Capture

A capture is the process of submitting a credit/debit card sale for financial settlement. When a transaction is captured, the sale amount is credited to your deposit account through your acquiring financial institution and posted to the cardholder's credit/debit card account. This transaction usually occurs after midnight when authorizations for the

previous day are batched.

Card authorization gateway
A card authorization gateway is a third-party credit/debit card interface, similar to an automated point-of-sale system that provides a front end to financial networks, financial institutions, and payment processors, which allows merchants to provide credit/debit card authorization to their clients.

Card Security Code (CSC)
The 3- or 4-digit, unembossed number that displays on the front or back of a credit/debit card; often used as an added measure of verification for card transactions. The Card Security Code (CSC) is not part of the actual card number.

DBA name
(Doing Business As) A DBA name is the name used to identify the business, as opposed to the business' legal name.

Deferred authorization
Deferred authorization is transaction information that is saved for later processing.

Manual authorization
Manual authorization option enables a system licensed for card authorization to turn off automatic authorization.

Editing
Editing is the process of changing the payment information for a transaction in the Trans database table in iMIS.

Flag
To flag is to mark a transaction to be processed later.

Immediate authorization
With immediate authorization, the payment information is sent immediately to the gateway for authorization (and for later capture) when a credit/debit card transaction is entered.

Issue date

The 5-character date (mm/yy format) date of issue that is printed on certain European debit cards, used for authentication.

Issue number
The 1- or 2-digit number that is printed on certain European debit cards, which indicate how many versions of the card have been issued to the cardholder. This value is used for authentication.

Issuing financial institution
An issuing financial institution extends credit to a customer through credit card accounts or provides electronic account debits through debit cards. The issuing financial institution issues a credit card and bills the consumer against the credit card account. An issuing financial institution is also referred to as the cardholder's financial institution or issuer.

Merchant account
The account that collects the funds from a credit/debit card transaction. The merchant account receives the funds after the capture is complete.

Submit
Submit is the process of sending deferred credit/debit card transactions to a gateway for authorization.

Settlement
Settlement is the process in which an electronic credit card transaction is settled between your acquiring financial institution and the customer's credit card issuing financial institution. Your acquiring financial institution credits your account for the credit card sale and the sale is posted to the customer's credit card account.

User account
The account that is debited after an authorized credit/debit card transaction is captured.

Void
A void is a deleted payment transaction. The transaction can then be replaced with a new transaction.

## Setting up card authorization

> **Note:** If you are creating a custom gateway, see Creating a custom credit card gateway.

Installing iMIS and adding license keys

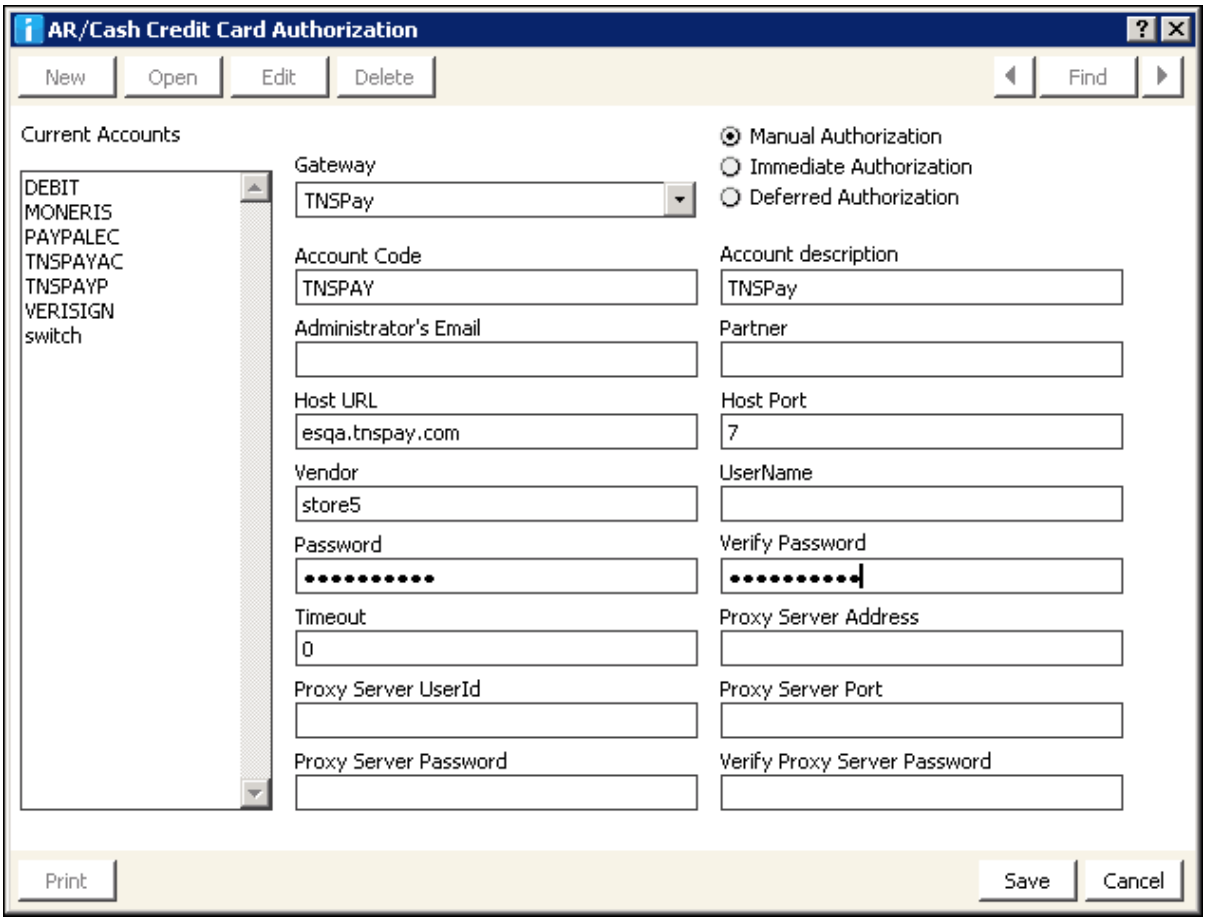
The first step in getting started is to install iMIS, which includes the components needed to run card authorization.

> **Note:** To set up card authorization, you need a relevant license, such as **CCAuth** or **Service Central**.

AR/Cash Credit Card Authorization window

This window specifies authorization options for credit cards and European debit cards.

In Advanced Accounting Console, go to **Finance > Options > Configure accounting options**, and click **Credit Card Auth**.




Current Accounts

Lists the currently defined card authorization accounts.

Gateway

Lists the authorization gateways supported by iMIS:

- **SafePay** – authorizes international credit cards.
- **Payflow Pro** – authorizes domestic credit cards.
- **Moneris** – authorizes Canadian and US currency credit cards using the eSelect service.
- **TNSPay** – authorizes international credit cards.
- **Other** – for European debit cards, enables storage of encrypted CSC values and unencrypted issue number and issue date values so that a custom gateway for deferred authorization of European debit card transactions can be implemented.
- **Custom** – custom gateways you can write and install on your system.

Authorization options

Specifies the type of authorization that will be performed for all credit/debit card cash accounts that use this card authorization account.

- **Manual Authorization** – Disables automated authorization through a gateway. The payment information can be edited or deleted at any time until invoiced.
- **Immediate Authorization** (**Payflow Pro**, **Moneris**, **SafePay**, **TNSPay** and **Moneris** gateways only) – Performs automated authorization through a gateway. Payment information can be edited or deleted the same day only. Because the **Other** gateway is not supported, immediate authorization cannot be used for European debit card transactions. The following authorization process is used:

1. Credit card payment is entered.
2. Credit card information is immediately sent for authorization.
3. Authorization is returned and transaction is saved for later capture.
4. Transaction is saved and completed.

- **Deferred Authorization** – Performs automated authorization through a gateway. Payment information can be edited or deleted until the transaction is captured. The following authorization process is used:

1. Credit/debit card payment is entered.
2. Transaction information is saved for later batch processing.
3. Transactions are periodically sent in a batch for authorization and capture.
4. Transactions in the batch are saved and completed.

Save CSC Prior to Authorization
(only for **Deferred Authorization**) Saves the card security code (CSC) value in an encrypted format in the iMIS database, so that the CSC information can be sent with all other transaction information in the batch for deferred authorization.

If the associated **Gateway** is **Payflow Pro**, or **SafePay**, iMIS automatically deletes the saved CSC information after successful deferred authorization. If the associated gateway is Other, however, the custom gateway implemented by your AiSP for European debit card authorization is responsible for ensuring that the saved CSC information is deleted from your iMIS database.

Account Code
Specifies a short name for the account which must match the value in the web.config file.

Account description
(optional) Specifies a description for the account.

Administrator's Email
(**Payflow Pro**and **SafePay** gateways only) Specifies the email address of your iMIS administrator so that the gateway service can contact the administrator if necessary.

Partner
(**Payflow Pro** gateway only) Specifies the Payflow Pro partner name that was obtained when you created your account.

Host URL
Specifies the web address of the Payflow Pro, TNSPay or Moneris gateways.

Host Port
(**Payflow Pro** gateway only) Specifies the port number of the Payflow Pro gateway.

Vendor
(**Payflow Pro**, **SafePay**, **TNSPay** and **Moneris** gateways only) Specifies your Payflow Pro user name, your Moneris user name, your SafePay merchant administration login (username), TNSPay Merchant ID or Moneris online account name (monxxnnnnn) that was obtained when you created your account.

UserName
(**Payflow Pro**and **SafePay** gateways only) Specifies your Payflow Pro user name, your SafePay merchant ID that was obtained when you created your account.

(**TNSPay** gateway only) Specifies the payment model of your merchant account. For the Authorize + Capture model enter **AC**. For the Pay (also known as Purchase) model enter **P**. If no value is specified then P is assumed.

Password, Verify Password
(**Payflow Pro** and **SafePay** gateways only) Specifies your Payflow Pro password or your SafePay merchant administration login password.

(**Moneris** gateway only) Specifies your API Token provided via your Moneris eSelect Store Settings. You must have access to this feature to generate an API Token.

(**TNSPay** gateway only) Specifies your Integration Authentication password.

Timeout
(**Payflow Pro** gateway only) Specifies the gateway connection timeout value, in seconds. ASI recommends a timeout value of 30 seconds.

Proxy Server Address
(optional, **Payflow Pro** gateway only) Specifies the IP address of your organization's proxy server.

Proxy Server UserId
(optional, **Payflow Pro** gateway only) Specifies the user ID of your organization's proxy server.

Proxy Server Port
(optional, **Payflow Pro** gateway only) Specifies the port number of your organization's proxy server.

Proxy Server Password
(optional, **Payflow Pro** gateway only) Specifies the password required by your organization's proxy server.

Verify Proxy Server Password
(optional, **Payflow Pro** gateway only) Specifies the password required by your organization's proxy server.

Setting up credit/debit card cash accounts in the Finance module
You must set up credit/debit card cash accounts on the **Set up cash accounts** window in the Finance module in the Advanced Accounting Console before you can use card authorization. When you select a cash account of type **Credit Card** or **Debit Card**, the **CC Auth Account** field displays, enabling you to associate a card authorization account with a credit/debit card cash account. The system automatically generates a read-only description under the **CC Auth Account** field. The **CC Auth Account** field requires a value when you

select a cash account of type **Credit Card** or **Debit Card**.

To define a new credit/debit card cash account code

> **Note:** Before defining new credit/debit card cash accounts, set up your card authorization accounts on the **AR/Cash Credit Card Authorization** window. In Advanced Accounting Console, go to **Finance > Options > Configure accounting options**, and click **Credit Card Auth**.

1. In Advanced Accounting Console, go to **Finance > Options > Set up tables > Cash accounts**.
2. Click **New**.
3. In the **Code** field, enter the abbreviation you want to assign to the cash account you are creating.

   > **Note:** You can use any code you prefer for a credit/debit card. However, for a credit card number to be validated by iMIS, the value, in addition to being a cash account of type Credit Card, must contain one of the credit card types iMIS supports: AMEX, VISA, MC, DISC, DINERS, CB.

4. In the **Title** field, enter the full name you want to assign to the account.
5. For **Type**, enable either the **Credit Card** or **Debit Card** option.
6. (optional) In the **Account** field, enter the GL chart of accounts number for the cash account assigned to this table entry, or click the lookup icon to select a value.
7. (optional) For multiple entities, enter the **Entity** code, or click the lookup icon to select a value.
8. Enter the **CC Auth Account**, or click the lookup icon to select a value.
9. (optional) Select the appropriate **CSC Required** option:

- **CSC Required Web Entry** – In all web-based views of iMIS, marks the **Card Security Code** field as required for the specified credit card.
- **CSC Required Workstation Entry** – In Advanced Accounting Console, marks the **CSC** field as required for the specified credit card.

> **Note:** When making the CSC value required, ensure the card authorization account to which the credit/debit card cash account is associated is set to Immediate Authorization or Deferred Authorization.

10. (optional) Select the appropriate **Display Issue** options:
- **Number** – Select this option to display a field for the entry of a European debit card's issue number.
- **Date** – Select this option to display a field for the entry of a European debit card's issue date.
11. Click **Save**.

To modify a credit/debit card cash account

Card authorization accounts are limited in how they can be modified. You might need to create new ones.

1. In Advanced Accounting Console, go to **Finance > Options > Set up tables > Cash accounts**.
2. Select a code to edit from the **Current Cash Accounts** list.
3. Modify the credit/debit card cash account:
- Click **Edit** to make any necessary changes to the cash account.
- Click **Delete** to delete the cash account.

> **Note:** When editing card authorization accounts, you cannot modify the values for the Gateway or Account Code field.

> **Note:** You cannot delete a card authorization account that has been assigned a cash account.

4. Click **Save**.

Requiring a Card Security Code (CSC) for credit/debit card transactions

As an additional verification for Advanced Accounting Console credit card transactions, you can make the Card Security Code (CSC) a required value for specific credit/debit card cash accounts. A CSC is the 3- or 4-digit unembossed number that displays on the

front or back of a credit/debit card. The CSC is not part of the actual card number and is useful in situations where the card holder is not present when the payment is being made.

To make the CSC required

1. In Advanced Accounting Console, go to **Finance > Options > Set up tables > Cash accounts**.
2. Select one of the following options for the specified credit/debit card cash accounts:

- **CSC Required Web Entry**
- **CSC Required Workstation Entry**
- Both **CSC Required Web Entry** and **CSC Required Workstation Entry**

  Selecting **CSC Required Web Entry** makes the CSC required for the specified cash account in the web views. Selecting **CSC Required Workstation Entry** makes the CSC required for the specified cash account in Advanced Accounting Console. When either **CSC Required Web Entry** or **CSC Required Workstation Entry** is selected, a CSC value is required before you can complete the credit/debit card transaction using the specified cash accounts.

  A CSC is not required when processing a reversal payment transaction (for example, entering a credit transaction) or when editing a payment transaction.

Note

- For transactions associated with card authorization accounts that use **Immediate Authorization**, the CSC value is not stored in the database. The value that displays in the Card Security Code or CSC field is deleted once the transaction is submitted for processing.
- For transactions associated with card authorization accounts that use **Deferred Authorization** and for which the **Save CSC Prior to Authorization** option has been selected, the CSC value is temporarily stored in an encrypted format in the iMIS database. For Payflow Pro and SafePay gateways, iMIS then deletes the stored CSC information after successful authorization. If a saved payment is viewed prior to successful authorization, the CSC number appears as three asterisks regardless of the security level of the iMIS user.
- For **Other** gateways, which are used only for European debit cards, the CSC information stored in the iMIS database is not automatically deleted by iMIS after successful deferred authorization. You should ensure that the custom gateway interface implemented by your Solution Provider deletes the stored CSC information after being successfully authorized.

- Advanced Accounting Console only validates that a CSC value is present (if required) and that the value is a 3- or 4-digit alphanumeric character. CSC validation depends on various factors that go beyond the scope of iMIS (for example, whether the credit card processor supports CSC). For specific information regarding CSC validation, contact your authorization gateway, merchant bank, credit/debit card processor, or any other third-party involved in validating your credit card transactions.

  Location of CSC fields

  CSC values can be entered in many locations throughout iMIS. For iMIS payment windows, the CSC field appears only when you enter a credit/debit card cash account that is associated with a card authorization account that uses **Immediate Authorization**, or that uses **Deferred Authorization** with the **Save CSC Prior to Authorization** option selected.

- AR/Cash
- **Cash receipts** window.  In Advanced Accounting Console, go to **Finance > Transactions > Cash receipts**.
- **Sales transactions** window. In Advanced Accounting Console, go to **Finance > Transactions > Sales transactions**.
- Billings
- **Enter and edit payments** window. In Advanced Accounting Console, go to **Home > Membership and Dues > Enter and edit payments**.
- Certification (European debit cards only)
- **Order Payment** window (from Certification, register a student and create an order)
- Events (European debit cards only)
- **Payments** tab on the **Register for an event** window. In Advanced Accounting Console, go to **Home > Events > Register for an event**. Select the **Payments** tab.
- **Payments** window. In Advanced Accounting Console, go to **Home > Events > Register for an event**. Select the **Payments** tab, and then click **More Payments**.
- Fundraising
- **Overview** tab on the **Enter and edit gifts** window. In Advanced Accounting Console, go to **Home > Fundraising > Enter and edit gifts**. Select the **Overview** tab.
- **Process gift payments** window. In Advanced Accounting Console, go to **Home > Fundraising > Process gift payments**.

- Orders (European debit cards only)
- **Payments** tab on the **Enter and edit order**s window. In Advanced Accounting Console, go to **Home > Customer Service > Enter and edit orders**. Select the **Payments** tab.
- Customer Service
- **Enter and edit payments** window. In Advanced Accounting Console, go to **Home > Customer Service > Enter and edit payments**.
- **Payment Entry** window. In Advanced Accounting Console, go to **Home > Customer Service > Process customer requests**. Select the **Payment** tab.

Accepting and validating Diners Club and Carte Blanche credit cards

iMIS accepts and validates Diners Club and Carte Blanche credit cards. To use Diners Club and Carte Blanche credit cards to process payment transactions, you must set up the following two new credit card type values on the Set up cash accounts window (in Advanced Accounting Console, go to **Finance > Options > Set up tables > Cash accounts**:

- **DINERS** (Diners Club)
- **CB** (Carte Blanche)

The following credit card number is available for testing Diners Club and Carte Blanche credit card transactions:

3056 9309 0259 04

> **Note:** For testing purposes, transactions must be under $100.00.

You can process transactions using credit card types with variations of the supported credit card types (for example, DINERS1, DINERS2).

You can enter any credit card value in the **Check/CC** field on the **Sales transactions** window (from Advanced Accounting Console, go to **Finance > Transactions > Sales transactions**) and the **Cash receipts** window (from Advanced Accounting Console, go to F**inance > Transactions > Cash receipts**). However, for a credit card number to be validated by iMIS, the value entered in the **Check/CC** field, in addition to being a cash

account of type **Credit Card**, must contain one of the supported credit card types: **AMEX**, **VISA**, **MC**, **DISC**, **DINERS**, **CB** (for example, *MY-AMEX*).

Setting up multiple card authorization accounts

Organizations that use iMIS to process accounting transactions may have multiple credit/debit card cash accounts and may want to control how funds are allocated to financial institutions.

For example, an organization that has domestic and international accounts might not want the international accounts processed, but may want to store the information in iMIS. The organization could create a new card authorization account for the international accounts, set the account to **Manual Authorization**, and create a corresponding cash account and set its **CC Auth Account** value to the new card authorization account.

Setting up authorization options in Fundraising

When setting up the Fundraising module for card authorization, we recommend disabling the **Do Not Validate Credit Card** field option.

1. In the Advanced Accounting Console, go to **Configure > Fundraising > Configure fundraising options**.
2. Disable the **Do Not Validate Credit Card** field option.
   If you enable this option, the credit/debit card number will not automatically format when it is entered on the Fundraising **Enter and edit gifts** window. If **Deferred Authorization** is enabled on the **AR/Cash Credit Card Authorization** window, then transactions made on the **Overview** tab on the **Enter and edit gifts** window with unformatted credit/debit card numbers will not display in credit/debit card searches and will not print on the **Deferred Credit Card Pre-Authorization** report.

Setting up European debit card authorization

1. You can set up a card authorization account that can be used either for manual authorization or deferred authorization of European debit cards through a custom gateway interface.
2. In Advanced Accounting Console, go to **Finance > Options > Configure accounting options**.
3. Click **Credit Card Auth**. The **AR/Cash Credit Card Authorization** window is displayed.

4. Click **New**.
5. From the **Gateway** drop-down list, select **Other**.
6. In the **Account Code** field, specify a short label for this card authorization account.
7. (optional) In the **Account description** field, specify a description for this card authorization account.
8. Select either **Manual Authorization** or **Deferred Authorization** for this card authorization account.
9. If you have selected **Deferred Authorization** and your authorization service requires CSC information for European debit card transactions, select the **Save CSC Prior to Authorization** checkbox.

   **Note:** You should ensure that the custom gateway interface implemented by your AiSP deletes the stored CSC information after being successfully authorized.

10. Click **Save**.

Setting up an authorization account for non-iMIS supported gateway

You must assign a card authorization account to each credit/debit card cash account you create in iMIS.

1. In Advanced Accounting Console, go to **Finance > Options > Configure accounting options**.
2. Click **Credit Card Auth**. The **AR/Cash Credit Card Authorization** window is displayed.

   **Note:** For **AR/Cash Credit Card Authorization** window to display, you need a relevant license, such as **CCAuth** or **Service Central**.

3. Click **New**.
4. From the **Gateway** drop-down list, select **Other**.
5. Select **Manual Authorization**.
6. Enter NOPROCESS as the **Account Code**.

   **Note:** NOPROCESS has been associated in the **web.config** file as a no processing payment gateway. If you enter a different code, you will have to modify your **web.config** files for that code to be recognized.

This value displays in the Select a Value window that opens when you use the lookup

icon on the CC Auth Account field on the Set up cash accounts window. This value cannot be changed once the record is saved.

7. Enter a meaningful description for the authorization account in the **Account description** field. This information displays as read-only data under the **CC Auth Account** field on the **Set up cash accounts** window.
8. Click **Save**.

Database schema for authorization and cash accounts

Card authorization account information and cash account information is kept in the following iMIS tables:

Payflow Pro credit card authorization accounts

The following columns in the CCAuthAcct table are used for each Payflow Pro (PayPay, previously Verisign) card authorization account:

| Column | Data type | Description |
|---|---|---|
| CCAuthAcctCode | varchar (20) | The code for the card authorization account |
| CCAuthAcctDescription | varchar (255) | Description associated with an account code |
| CCAuthMode | tinyint | Authorization mode: 0 (manual), 1 (immediate), or 3 (deferred) |
| CCAuthAdminEmail | varchar (255) | E-mail address of the system administrator responsible for setting up the accounts |
| CCAuthUrl | varchar (255) | URL of the test or live site |
| CCAuthGateway | varchar (255) | Gateway interface through which card authorization occurs |

| | | |
|---|---|---|
| CCAuthPort | int | Port address used for transaction processing |
| CCAuthUser | varchar (255) | Username created during setup process |
| CCAuthPassword | varchar (255) | Password created during sign-up process |
| CCAuthVerisignPartner | varchar (255) | Partner name supplied |
| CCAuthVerisignVendor | varchar (255) | Vendor name supplied |
| CCAuthTimeout | int | Timeout period supplied |
| CCAuthVerisignProxyServer | varchar (255) | Proxy server supplied by network administrator |
| CCAuthVerisignProxyPort | varchar (255) | Proxy port supplied by network administrator |
| CCAuthVerisignProxyUser | varchar (255) | Proxy user ID supplied by network administrator |
| CCAuthVerisignProxyPassword | varchar (255) | Proxy password supplied by network administrator |
| CCAuthSaveCscBeforeAuth | tinyint | Handling of CSC value for deferred authorization: 0 (do not save CSC in iMIS) or 1 (save encrypted CSC in iMIS then delete after successful authorization) |

SafePay credit card authorization accounts

The following columns in the CCAuthAcct table are used for each SafePay (TNS, previously Dialect and QSI) card authorization account:

| Column | Data type | Description |
|---|---|---|
| CCAuthAcctCode | varchar (20) | The code for the card authorization account |
| CCAuthAcctDescription | varchar (255) | Description associated with an account code |
| CCAuthMode | tinyint | Authorization mode: 0 (manual), 1 (immediate), or 3 (deferred) |
| CCAuthAdminEmail | varchar (255) | E-mail address of the system administrator responsible for setting up the accounts |
| CCAuthGateway | varchar (255) | Gateway interface through which card authorization occurs |
| CCAuthUser | varchar (255) | Merchant ID created during setup process |
| CCAuthVerisignPartner | varchar (255) | Merchant Administration login (username) obtained from QSI/Dialect during setup process |
| CCAuthPassword | varchar (255) | Merchant Administration login (username) password obtained from TNS during setup process |
| CCAuthSaveCscBeforeAuth | tinyint | Handling of CSC value for deferred authorization: 0 (do not save CSC in iMIS) or 1 (save encrypted CSC in iMIS then delete after successful authorization) |

Other gateway credit card authorization accounts

The following columns in the CCAuthAcct table are used for each Other card authorization account:

| Column | Data type | Description |
|---|---|---|
| CCAuthAcctCode | varchar (20) | The code for the card authorization account |
| CCAuthAcctDescription | varchar (255) | Description associated with an account code |
| CCAuthMode | tinyint | Authorization mode: 0 (manual), 1 (immediate), or 3 (deferred) |
| CCAuthGateway | varchar (255) | Gateway interface through which card authorization occurs |
| CCAuthSaveCscBeforeAuth | tinyint | Handling of CSC value for deferred authorization: 0 (do not save CSC in iMIS) or 1 (save encrypted CSC in iMIS) |

Credit/debit cards cash accounts

The following columns in the Cash_Accounts table are used for each credit/debit card cash account:

| Column | Data type | Description |
|---|---|---|
| CCAuthAcctCode | varchar (20) | The code for the card authorization account |
| CSC_REQUIRED_WEB | bit | Indicates whether the CSC value is required on the web: 0 (not required) or 1 (required) |

| | | |
|---|---|---|
| CSC_REQUIRED_CS | bit | Indicates whether the CSC value is required in iMIS: 0 (not required) or 1 (required) |
| ISSUE_NO_FLAG | tinyint | Indicates whether the Issue Number field should be displayed in iMIS payment entry windows: 0 (not displayed) or 1 (displayed) |
| ISSUE_DATE_FLAG | tinyint | Indicates whether the Issue Date field should be displayed in iMIS payment entry windows: 0 (not displayed) or 1 (displayed) |

**Setting up credit card authorization for the Public view**

Use the following steps to accept credit card payments in iMIS Public view:

1. Set up credit card authentication (in Advanced Accounting Console, go to **Finance > Options > Configure accounting options** and click **Credit Card Auth**). See AR/Cash Credit Card Authorization window.
2. Set up cash accounts for online registration credit cards (in Advanced Accounting Console, go to **Finance > Options > Set up tables > Cash accounts**). See Setting up credit/debit card cash accounts in AR/Cash.

   **Note:** The cash account codes must be prefixed with W_ (such as W_VISA) to accept credit card payments using the Public view.

3. Modify the **web.config** file to include the Gateway Account Code.

   Modifying the PayFlowPro web.config file with the credit card gateway

   In order to accept credit card payments in the Public view or any content items website, you must add the Gateway Account Code to your **web.config** file. This must be updated in the **iMIS_Public** folder if you are using the iMIS Public view, or the following folders if you are using any website containing content items:

- **C:\AsiPlatform\Asi.Scheduler_iMIS**
- **C:\Program Files (x86)\ASI\iMIS\Net**

If you do not make this change, you will receive the error message:

> An error occurred while processing a payment. Payment gateway was not found to match the associated authorized account

Do the following:

1. In Advanced Accounting Console, go to **Finance > Options > Configure accounting options**.
2. Click **Credit Card Auth**.
3. Take note of your **Account Code** for the gateway you are using.
4. On your webserver, open the **web.config** file.
5. Search for **AuthorizationAccounts**. The code should look similar to the following:

```
<add name="PayFlowProPaymentGatewayProvider" type-
e="Asi.PaymentGateway.PayflowProPaymentGatewayProvider, Pay-
flowProPaymentGatewayProvider"
authorizationAccounts="VERISIGN,PaymentTech,PAYFLOWPRO" />
```

6. Place a comma after **PAYFLOWPRO** and add the **Account Code** for your credit card gateway and save. For example, if your credit card gateway **Account Code** was labeled **CREDITCARDS**, then your code should look similar to the following:

```
<add name="PayFlowProPaymentGatewayProvider" type-
e="Asi.PaymentGateway.PayflowProPaymentGatewayProvider, Pay-
flowProPaymentGatewayProvider"
authorizationAccounts="VERISIGN,PaymentTech,PAYFLOWPRO,CREDITCARDS"
/>
```

7. Restart IIS. Your credit cards should work in iMIS Public view or any content items website.

Customizing credit card fields for the Public view

When configuring the Public view for card authorization, go to these locations to adjust your settings:

1. **System Setup > Set up commerce web components > Credit card label configuration**
2. **System Setup > Set up commerce web components > Checkout configuration**

3. AR/Cash > Set up tables > Cash accounts - Enable the CSC Required Web Entry option if the CSC code is required for Public view transactions. See Setting up credit/debit card cash accounts in AR/Cash.

**Using card authorization**

Once you have set up the AR/Cash options and tested your credit/debit card gateway, you are ready to use card authorization.

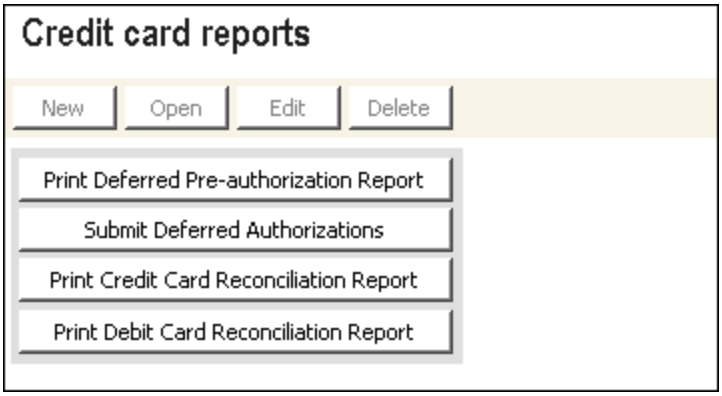
- Credit card transactions can be processed in iMIS with either deferred or immediate authorization, as defined by the associated card authorization account.
- European debit cards, however, can be processed only with deferred authorization, and only if your Solution Provider has implemented a custom gateway interface for European debit card authorization.

Credit card authorization window

> **Note:** If you have not set up credit card cash accounts in the Finance module, the Credit card reports menu item is disabled.

Click to view image

In Advanced Accounting Console, go to **Continuum > Commerce and Customer Service Reports > Credit card reports**




To generate credit/debit card reports, in Advanced Accounting Console, go to **Continuum > Commerce and Customer Service Reports > Credit card reports**. The following report options display on the **Credit card reports** window:

- **Print Deferred Pre-authorization Report** – Prints a report of deferred credit/debit card transactions. The report parameters include **Date Range** and **Org Code**.
- **Submit Deferred Authorizations** – Sends transactions flagged for deferred authorization. All flagged transactions are submitted immediately. This applies only to deferred credit/debit card authorizations.
- **Print Credit Card Reconciliation Report** – Prints a credit card reconciliation report.
- **Print Debit Card Reconciliation Report** – Prints a European debit card reconciliation report.

> **Note:** If you have not set up European debit card cash accounts in the **Finance** module, the **Print Debit Card Reconciliation Report** button is not available.

Immediate card authorization

If you have enabled the **Immediate Authorization** option, and then entered a credit card payment, the transaction information is sent immediately through the gateway to the financial institution for authorization. After the payment is authorized, the funds are captured at midnight of the transaction date.

> **Note:** European debit card authorization accounts cannot be configured to use the **Immediate Authorization** option.

1. In Advanced Accounting Console, go to **Finance > Transactions > Sales transactions**.

   > **Note:** For this example, we are using the **Enter and edit sales transactions** window. You can enter the credit card payments in any of the windows available for credit card authorization.

2. Click **New**.
3. Enter the customer ID in the **Id** field.
4. Enter a product in the **Product** field, or click the **Find** icon to select a value.
5. Enter the product quantity in the **Quantity** field.
6. Enter the credit card code in the **Check/CC** field. Several additional credit card fields display when you press **Tab**.
7. Enter the credit card number in the **CC #** field.

8. If required, enter the Card Security Code in the **CSC** field.
9. Enter the expiration date in the **Exp** field.
10. Enter the name on the credit card in the **Name on CC** field. This does not have to be the same as the customer name.
11. Enter an amount in the **Payment Amount** field.
12. Click **Save**:

- If the transaction was authorized, the **Authorize** field on the payment transaction window populates with the authorization code and the transaction is saved. In addition, if you entered a value in the **CSC** field, the field is now blank because the system automatically deleted the value once the transaction has been submitted.
- If the authorization was declined, an error message displays indicating that the transaction was declined.Select **OK** to exit the **Results** window and return to the transaction window. If the transaction was declined, **DECLINED** displays in the **Authorize** field in the payment window.

> **Note:** There could be several reasons for a declined authorization, such as bad card, invalid data, or invalid credit card number.

> **Note:** At this point, you are not able to save the transaction. You can edit the payment date, amount, name, credit card number, and expiration date, and then resubmit the transaction for authorization.

Deferred authorization of payments

Deferred credit/debit card payments are entered in the same manner as if you were using immediate authorization. When a deferred transaction is saved (by clicking **OK**), the word **DEFER** displays in the **Authorize** field. If you select the **Deferred Authorization** option, credit/debit card transactions are deferred until you submit them.

> **Warning!**
>
> Do not accidentally enter any data in the **Authorize** field. When entering payment information, the **Authorize** field is empty. It remains empty until you save the

transaction, then it populates with the word DEFER to indicate that it is batched for authorization. However, you might need to authorize a payment through a credit card machine or by calling the merchant bank, so iMIS allows you to manually enter authorization codes for these circumstances. However, keep in mind that if you do enter information in this field, iMIS assumes that it is a manually entered authorization code.

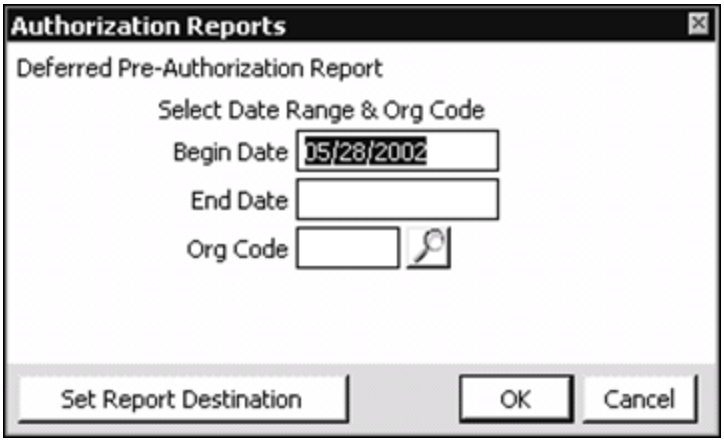
Running a Deferred Pre-Authorization report

If you are using **Deferred Authorization**, you can view a Pre-Authorization report of credit/debit card transactions before you transmit them to be authorized. This allows you to check and edit transactions before submitting them.

1. In Advanced Accounting Console, go to **Continuum > Commerce and Customer Service Reports > Credit card reports**, and click **Print Deferred Pre-authorization Report**. The **Authorization Reports: Deferred Pre-Authorization Report** window opens.
2. Enter the **Begin Date** and the **End Date** for the date range you are evaluating. The **Begin Date** defaults to the current system date.
3. (optional) Enter the **Org Code**, or click the lookup icon to select a value. If you do not enter an **Org Code**, the report prints for every **Org Code**.
4. Click **Set Report Destination** and select the output for the report.
5. Click **OK**. A **Deferred Credit Card Pre-Authorization** report prints based upon the specified date range and **Org Code**.

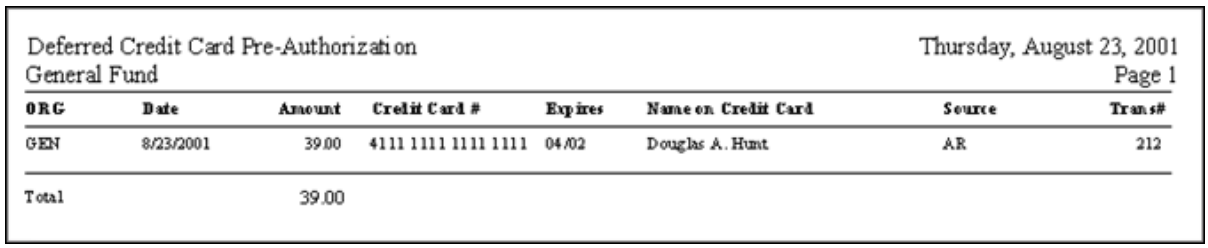
   Click to view image

   Selecting a Date Range and Org Code



Click to view image

Sample Deferred Credit Card Pre-Authorization report



Deferred Credit Card Pre-Authorization — Thursday, August 23, 2001
General Fund — Page 1

| ORG | Date | Amount | Credit Card # | Expires | Name on Credit Card | Source | Trans# |
|---|---|---|---|---|---|---|---|
| GEN | 8/23/2001 | 39.00 | 4111 1111 1111 1111 | 04/02 | Douglas A. Hunt | AR | 212 |
| Total | | 39.00 | | | | | |

Submitting deferred credit card payments

Before deferred credit/debit card payments can be authorized, they must be submitted.

1. In Advanced Accounting Console, go to **Continuum > Commerce and Customer Service Reports > Credit card reports**, and click **Submit Deferred Authorizations**. The **Authorization Reports: Submit Deferred Authorizations** window displays.
2. Enter the **Begin Date** and **End Date** of the deferred authorizations. The **Begin Date** defaults to the current system date, which you can override.
3. Enter the **Org Code**, or click the **Find** icon to select a value. If you do not enter an **Org Code**, the report prints for every **Org Code**.
4. Click **OK**.

Searching credit/debit card transactions

After you enter credit/debit card transactions, you can search iMIS for transactions:

1. In Advanced Accounting Console, go to **Finance > Transactions > Search credit card info**.
2. Enable the **Last Four** option to search on the last four numbers of the credit/debit card or the **Full** option to search on the full card number.

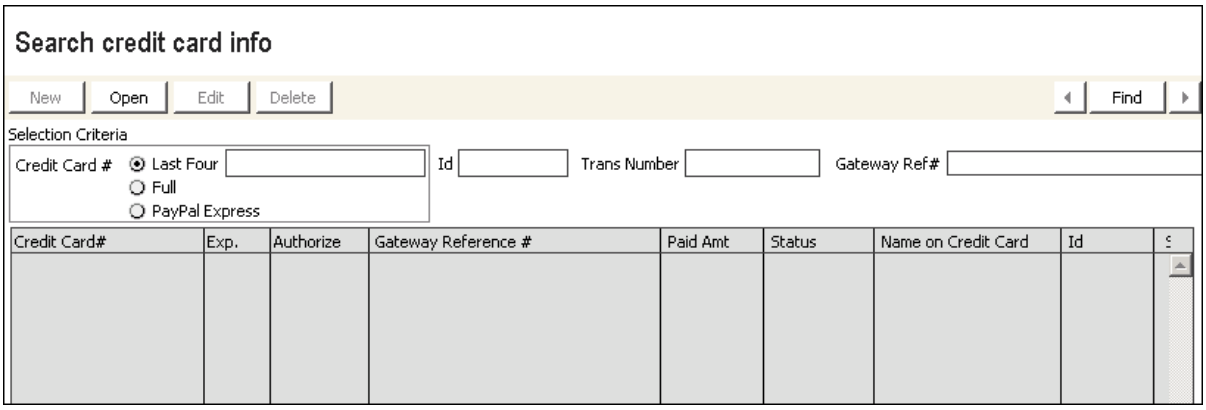
   **Note:** If Advanced PCI Compliance **> Do not retain cardholder information** is enabled, iMIS saves transactions without cardholder data and shows only gateway reference number and authorization code fields. Therefore, the **Full** option is disabled, because only the last four credit card digits are saved.

3. Enter the card number in the **Credit Card #** field to search for a specific card number.

4. Enter the customer or company ID in the **Id** field to search by record. You search by both the card number and ID, or by one field only.
5. Enter the transaction number in the **Trans Number** field to search by transaction number.
6. Press **Enter**. A list of transactions for the selected card and/or customer record displays in the window. Unencrypted card information can be viewed in this window only if a user has an AR/Cash authorization level of 8 or higher.
7. To view an individual transaction through the Search credit card info window, double-click the line item. The original transaction window opens.

> **Note:** If Advanced PCI Compliance > **Do not retain cardholder information** is enabled, iMIS saves transactions without cardholder data and shows only gateway reference number and authorization code fields.

Search credit card info window




Troubleshooting

- The **Status** field is populated by Trans.STATUS for transactions entered through Service Central and iBO.
- When entering an order and paying by credit card over the web, the order must be processed to the invoice stage before it will display in the **Search credit card info** window.
- When viewing credit card transaction status, the details of the transaction are shown, not the details of the actual order payment or the event payment.

Credit Card #

The credit/debit card number associated with the search

Id

The customer or company ID whose credit/debit card transactions are associated with the search

Display fields

- **Credit Card #** – The card numbers associated with the search.
- **Exp.** – The expiration date for each card number.
- **Authorize** – The authorization code for the card transaction.
- **Paid Amt** – The amount paid with the card transaction.
- **Status** – This field indicates the authorization status of the transaction. The status options are: A (authorized), D (deferred), and C (captured). If this field is blank, it is either a manual transaction or the transaction was denied.
- **Name on Credit Card** – The name on the card associated with the transaction.
- **Id** – The ID associated with the card transaction.
- **Source** – This field indicates the module source for the card transaction. For example, if the payment were a fundraising gift, FR would display in this field.
- **Ref. #** – A transaction number or order ID that is generated by the authorization gateway. This information is stored in the Description field of the transaction entry, and must be referenced in order to delete any transactions.
- **Ref. Date** – Specifies the date the transaction was entered in iMIS

## Installing iMIS DataVault

Providing a secure method for processing payments ensures confidence when your customers visit your website. The PCI Security Standards Council has established security standards called PCI DSS (Payment Card Industry Data Security Standards) or PCI Compliance. PCI Compliance increases customer confidence when entering credit card or bank account information on your website and has quickly become the industry standard for merchants. If you do not meet PCI Compliance standards and your customers' payment data is compromised, the payment card brands can fine or penalize you or even revoke your right to accept their payment cards.

The iMIS DataVault provides an effective solution for securing payment information. The DataVault is a tokenization engine that supports processing of credit cards and bank account payments while maintaining PCI compliance. Since the payment information is

not stored in iMIS, PCI Compliance is only required on the iMIS DataVault. This reduces the expense of complying with PCI standards on every iMIS website.

The DataVault is used with iMIS installations licensed for AutoPay. After configuring iMIS for automatic payments, a member or donor can automatically renew their membership fees or set up recurring donations using a credit card or bank account. The DataVault is a separate utility that processes payment requests sent to it by iMIS.

### Benefits to your organization

Using the DataVault to process automatic payments offers a variety of benefits for your organization:

- DataVault works seamlessly with iMIS AutoPay, making it easy for you to offer secure automatic payment options to your members and donors.
- Automatic payment processing within iMIS uses the token created by the DataVault as a surrogate for the payment information. The token cannot be associated with the credit card or bank account, ensuring the security of your members' and donors' financial information.
- The DataVault is PCI-compliant. Since the payment information is not stored in iMIS, your iMIS database is not required to be PCI-compliant, eliminating needless expense and complexity for your organization.
- Organization staff will save essential time as they will no longer need to manually enter credit card numbers for recurring payments each time the payment is due.

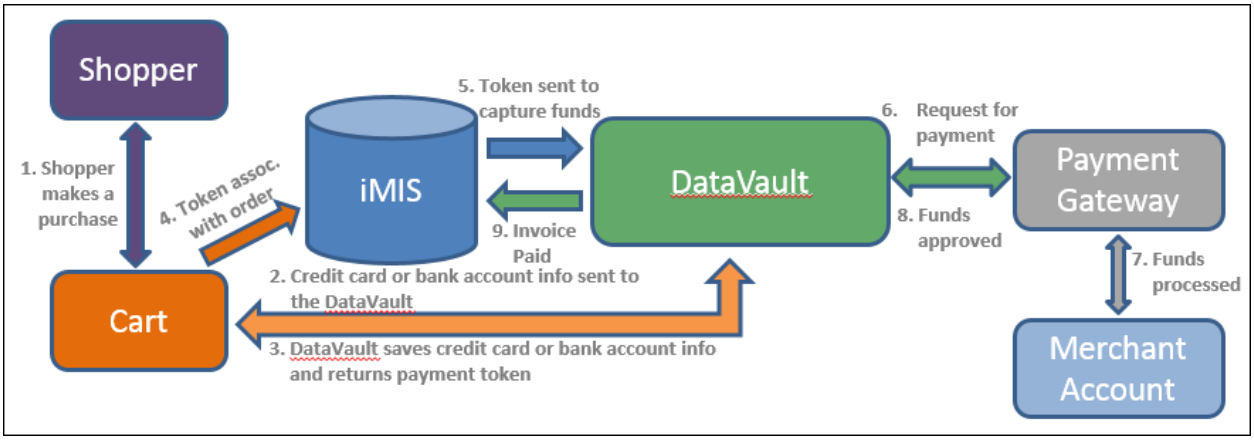
### How the DataVault secures the payment method

The DataVault acts as a secure pass-through between iMIS and the Payment Gateway (for example, Payflow Pro or iATS). When a user sets up an automatic payment, the DataVault generates a token to represent the user's credit card number or bank account details. Sensitive payment information remains safely stored in the DataVault while iMIS uses the token to process the transaction.

If iMIS is licensed for AutoPay, a member or donor can set up their membership fee or donation to be automatically processed on a recurring basis. iMIS and the DataVault begin to interact when a member or donor chooses to use automatic membership renewals or recurring donations:

1. The user adds the membership fee or donation item to their cart.
2. When the user submits credit card or bank account information for payment in the cart, iMIS sends the encrypted payment information to the DataVault.
3. The DataVault saves the payment information and sends a payment token to iMIS for use with future payments.
4. The token now acts as a surrogate for the payment information within iMIS.
5. The staff user sends the invoice, along with the token to be used to pay for the invoice, to the DataVault to be processed.
6. The DataVault matches the token to the payment details and sends them along with the payment request to the gateway.
7. The payment gateway interacts with the merchant account to determine if payment is approved or declined.
8. The payment gateway sends the merchant account's response to the DataVault.
9. DataVault associates the response information with the token and sends the information to iMIS. If the transaction was approved, iMIS uses the token to process the payment and shows the invoice as paid.

   Click to view image




### Hosting options for iMIS 20-300 customers

iMIS 20-300 customers can choose to self-host the DataVault, or if ASI already hosts their iMIS application server, ASI can also host the DataVault.

**Note:** ASI hosts the DataVault for all iMIS 20-100 and iMIS 20-200 customers.

Customers who self-host the DataVault will need to meet the system requirements and follow the installation instructions described in the Installing the DataVault section of this document. A number of reports are also available for self-hosted customers.

When customers choose to use the ASI-hosted DataVault, ASI provides the system requirements and installs the utility.

### iMIS DataVault installation

iMIS architecture is made up of a single database server, one or more application servers (appservers), and two types of clients (a Windows application and a web application), which run on typical workstations. These requirements apply across database servers, appservers, and workstations. Web clients only need to meet requirements for displays and browsers. The DataVault has all of the same requirements as iMIS and includes several additional requirements.

For more information about iMIS system requirements, see the most up-to-date version of the iMIS Installation Guide.

### System requirements

| | |
|---|---|
| *Minimum hardware (all)* | 2 machines: 1 application server and 1 database server |
| *Operating system (for both servers)* | Windows Server 2008 R2 SP1, 2012 or 2012 R2 (64-bit, Standard/Enterprise/Datacenter editions only) |
| *Application server* | Microsoft .NET Framework 3.5 and 4.5 (ASP.NET)<br>Microsoft Internet Information Services (IIS) 7.5, 8.0, or 8.5<br>**Note:** An SSL certificate must be installed on the application server by an ASI team member. |
| *Database server* | Microsoft SQL Server and Express Edition 2012 SP1 or Microsoft SQL Server and Express Edition 2008 R2 SP2 (32-bit and 64-bit)<br>**Note:** 2008 R2 is not backwards compatible. |

## Installing the DataVault

> **Note:** The DataVault is versioned. It is vital that you check to see if you need to update your DataVault any time you update iMIS.

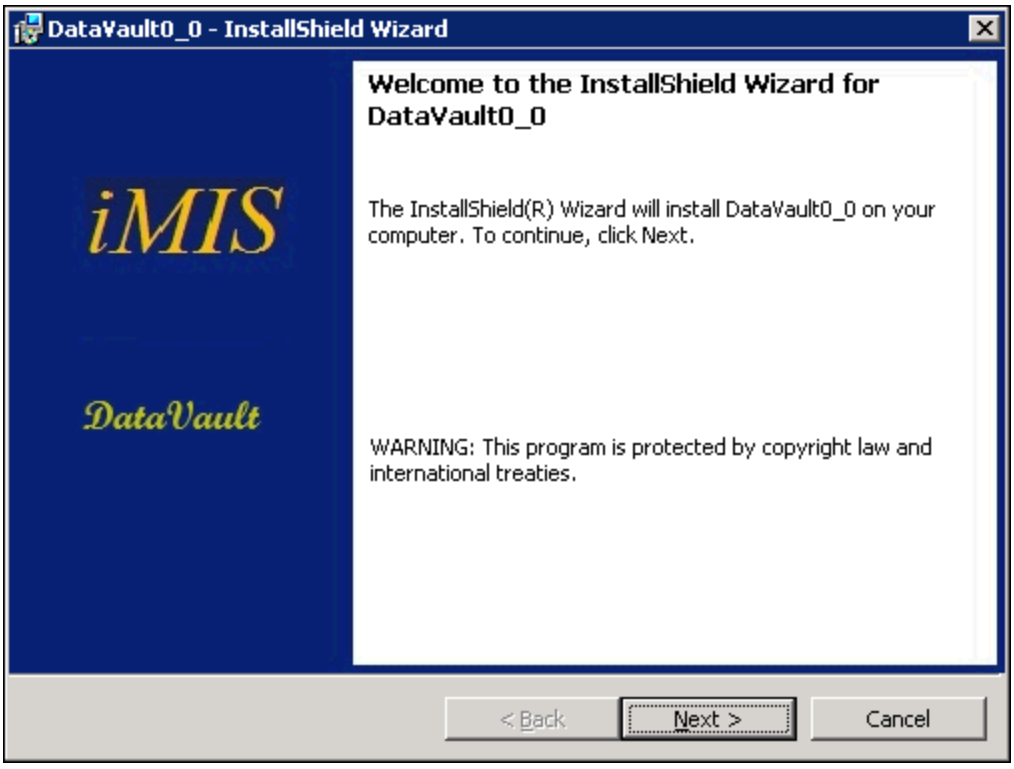
Do the following to install the DataVault:

1. Contact ASI hosting for the most recent version of the ASI DataVault Installer.

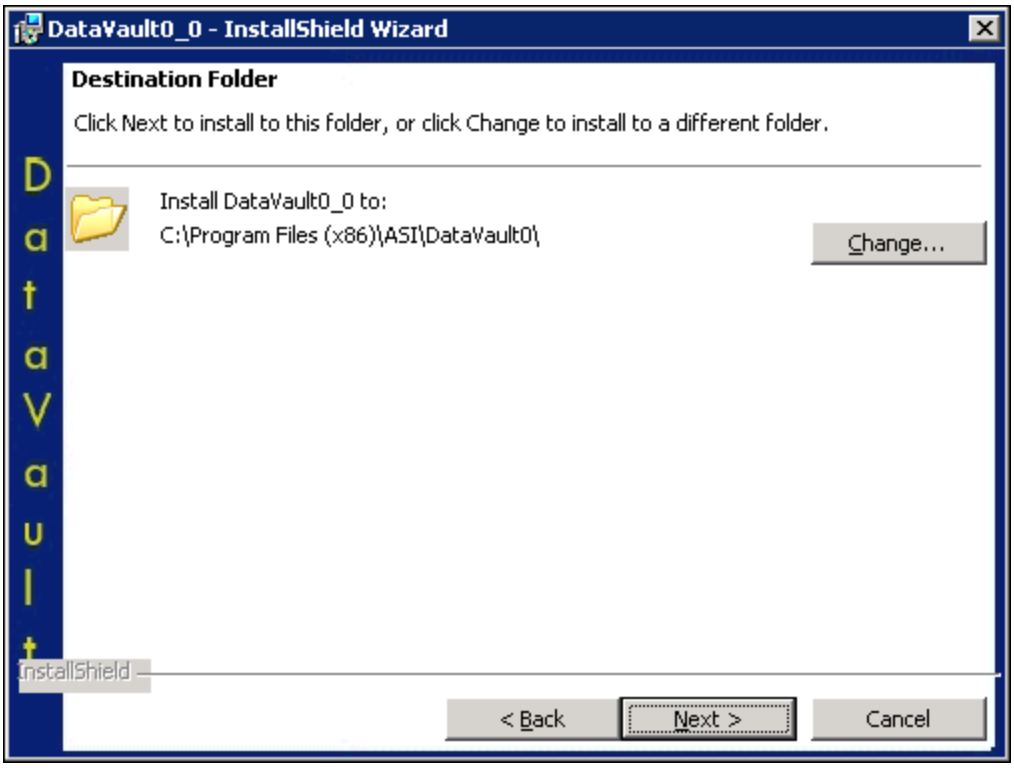
   > **Note:** Each instance of DataVault is supported with a particular release of iMIS.

   > **Note:** TCP port 1433 and TCP port 1434 must be open in order to communicate to the SQL server. If these ports are not open, the install will fail.

2. Run the Setup.exe to initiate the installation. Follow the installation wizard.
   Click to view image



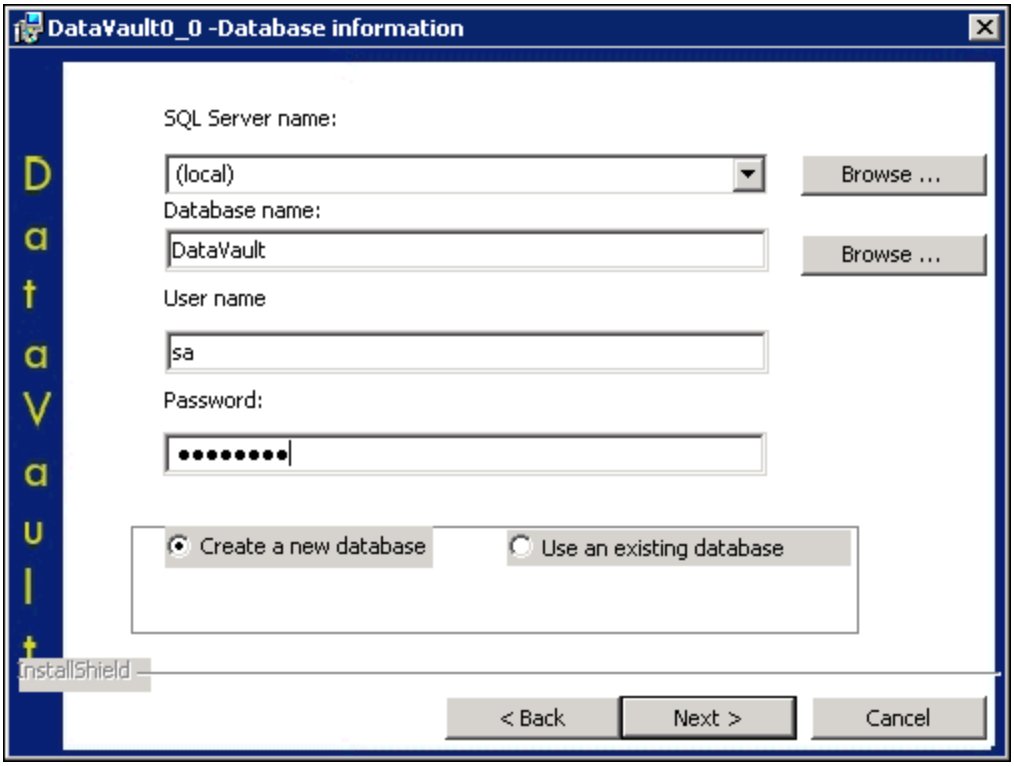

3. At the InstallShield **Welcome** screen, click **Next**.
4. Select your default installation folder.
   Click to view image




5. Click **Next**.
6. Provide your database information.

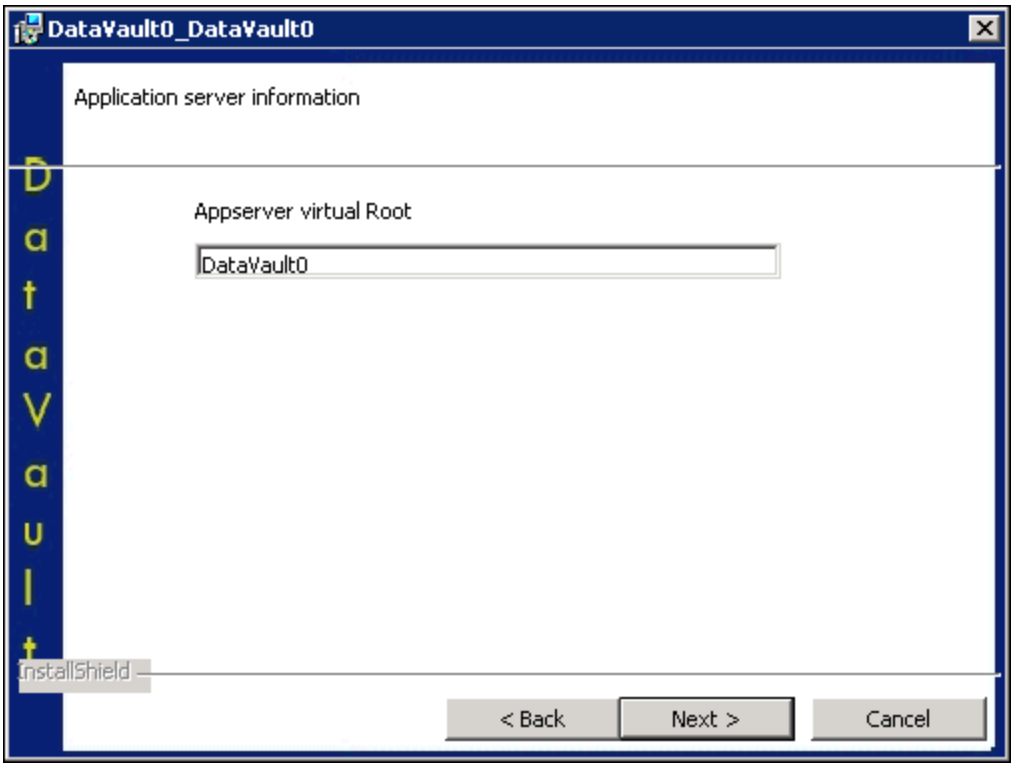
- **SQL Server name** – To determine this information, open MS SQL Server and locate the server it is trying to connect to. Copy the server name into this field.
- **Database name** – Choose a name for your DataVault database.
- **User name** – Enter your SQL server login.
- **Password** – Enter your SQL server password.
- Select the **Create a new database** radio button.

Click to view image



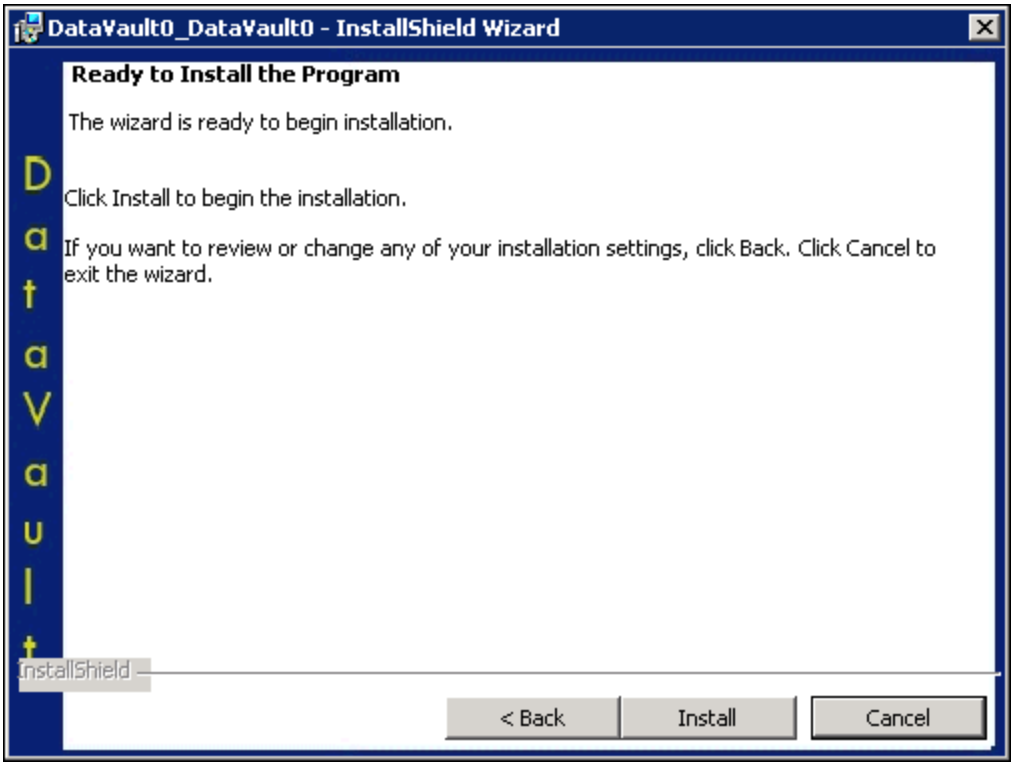

7. Click **Next**.
8. Choose a location for your **Appserver virtual Root**.

   Click to view image

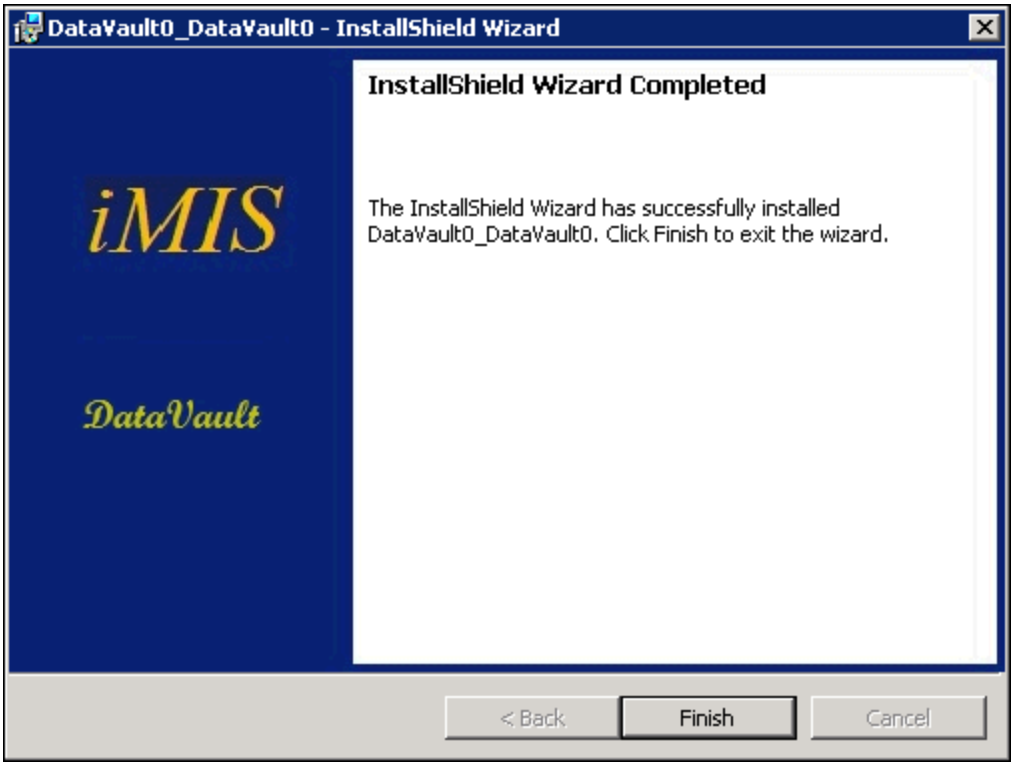



9. Click **Next**.

   Click to view image



10. Click **Install**.
11. When the DataVault is installed, you will see the following window:
    Click to view image




12. Click **Finish**.

**Testing the web service installation**

1. Open **Internet Information Services (IIS) Manager** from your workstation's administrative tools.
2. Locate your newly installed **[*Your Site Name*]** website.

> **Note:** This website is located under **~/Sites/Default Web Site/[*Your Site Name*]**.

3. In the **Manage Application** area, click **Browse *:443 (https)**.
   This takes you to the default **[*Your Site Name*]** DataVault web service home page.

> **Note:** You must use the **Browse *:443 (https)** option to access the DataVault web service home page. DataVault requires an SSL certificate.

> **Note:** Copy the DataVault Service URL. You will use this information to connect the DataVault to iMIS.

4. Verify your new DataVault database was installed. Locate the new DataVault database in MS SQL Server Management Studio. By default, the database is located at **~/Databases/[*Your DataVault Name*]**.

### Configuring iMIS 20-300 for the DataVault

In order to connect the DataVault to iMIS, you must enter the service address in the iMIS web configuration. Since you have the AutoPay license, you will see the additional configuration options that are addressed below.

1. Locate the DataVault Service URL. For example, the address will look like the following:

   ```
   https://localhost/DataVault0
   ```

   > **Note:** Important! You must edit the address to replace localhost with the name of the server on which you have installed the DataVault.
   > For example, if the machine where the DataVault is installed is named **DVServer1**, you would change the address to the following:
   > `https://DVServer1/DataVault0`

2. On the Staff site, go to **Settings > Commerce > General**.
3. Locate **AutoPay service address (DataVault.DataVaultServiceAddress)** and paste the DataVault Service URL copied in step 1, edited to reference the machine where the DataVault is installed.
4. Click **Save**.

### Reviewing DataVault reports

DataVault has a series of reports available to self-hosted customers that provide information to help detect and troubleshoot issues with the DataVault:

- DataVault Status Summary
- Payment Gateways
- Payment Gateway Details
- Payment Accounts

- Payment Batches
- Payment Batch Details
- Audit Log
- Audit Log By iMIS Invoice Number
- Audit Log By iMIS Invoice Number - Type in Invoice Number
- Find Payment Methods - Date Range

**PCI Compliance recommendations**

Please follow the following installation-related recommendations to ensure PCI Compliance.

> **Note:** Review the **iMIS PCI Implementation Guide** for additional details about PCI Compliance.

- The DataVault database must not be installed on a server in the DMZ (Demilitarized Zone).
- If the DataVault's SQL server is on the same server as the IMIS SQL server, they must be separate instances of SQL, so the System Administrator password of the iMIS SQL instance cannot access the DataVault SQL instance.
- Access to the DataVault database must not be through the System Administrator ID. Access should be granted to a different User ID with System Administrator privileges.
- The user ID and password with System Administrator privileges in SQL must not be in plain text in the web.config file. For more information about encrypting this portion of the web.config file, see How to: Secure Connection Strings When Using Data Source Controls.

> **Note:** If you install a second instance of iMIS, you can set up the Multi-Instance Utility to encrypt the web.config file automatically.

## Managing websites

In the iMIS Staff site, you can manage sitemaps, websites, and shortcuts by selecting **RiSE > Site Builder**. To manage sitemaps, please see Using sitemaps.

Website management is the process of configuring and maintaining the appearance, navigation structure, and content authoring environment for your iMIS websites.

Website management comprises three general workflows:

- The process of **defining the appearance and navigation** structure of your iMIS content management websites entails the following actions, which should be performed in the order shown:

a. Defining website look and feel. Choose a specific mix of available master pages and themes.
b. Defining sitemaps (navigation items) to build the navigation structure of your website.
c. (optional) Defining shortcut URLs to enable the use of short, reader-friendly links to important pages of your website.

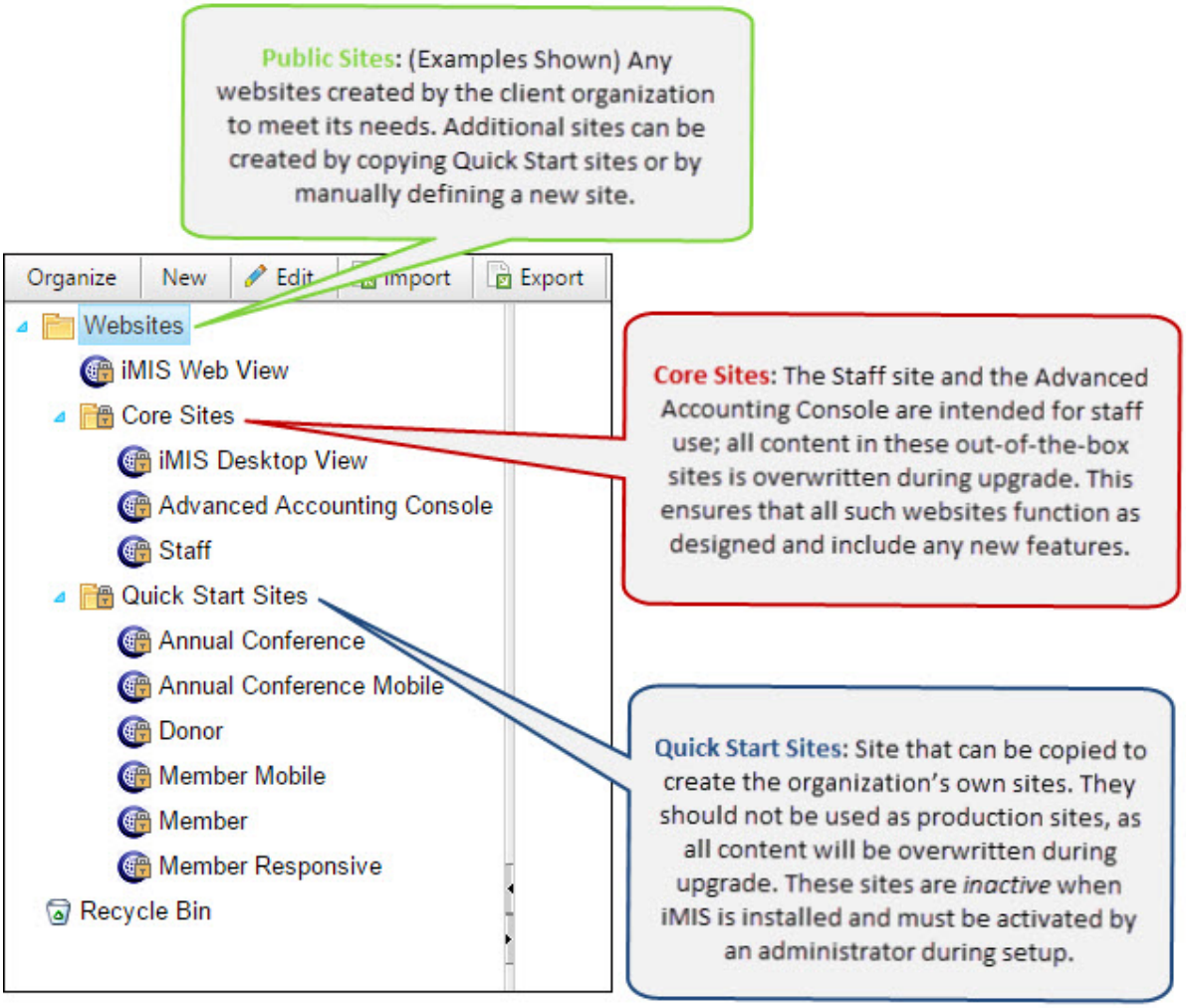
- The process of **creating the infrastructure** to support the people who perform web content authoring entails the following actions, which should be performed in the order shown:

a. Defining content authority groups (CAGs) to grant various content authoring permissions to the people who will perform web content authoring in your organization.
b. Defining content folders to organize the creation of content records.
c. (optional) Enabling workflow for content authoring for specific content folders to enable better coordination of web content authoring efforts among the people responsible for developing and maintaining the content records in those folders.
d. (optional) Defining content layouts to extend the basic set of content layouts provided with iMIS content management, thereby enabling new arrangements of the content items in a content record.
e. Defining tags and defining tagged list formats (see Defining tagged list formats) for use in content record properties and certain types of content items, to enable tag-filtered searches and the creation of dynamic content that changes automatically based on the tags assigned to content records in the system.
f. (optional) Defining iMIS content management user-defined fields (UDFs) to enable capturing additional properties of the content in content records, which can enable iMIS content management website visitors to perform more powerful website searches, and can provide additional filtering and sorting of the output of ContentTaggedList content items.

g. (optional) Importing content from a staging server if you choose to develop and test new content and navigation outside of your production environment.

- The process of **website maintenance** entails the following actions, performed as needed:
- Managing the priority of pending publication requests|topic=Website maintenance to speed up a publishing request that is behind many others in the publishing queue.
- Viewing content reports|topic=Website maintenance to gain information about your web-sites and web content authoring efforts.

Click to view image




The copy website functionality of iMIS will only copy site-specific content from a Quick Start Site. All navigation that points to shared core content will continue to point to the same shared core content in the copied website. Only when an iMIS client decides to modify any shared core content will they be required to save the modified content into the new Shared Content folder (or website-specific folder where appropriate).

## Website appearance and structure definition

Website appearance and structure definition is the process of defining the look and feel and the navigation of your iMIS content management websites.

The initial look and feel of an iMIS content management website is chosen when the administrator first defines iMIS content management websites. However, anyone with access to the Site Builder tool can subsequently change the look and feel of an existing website in various ways by using the **Look and Feel** section of the website's definition:

- You can selectively mix and match master pages and themes that are listed in their respective drop-down lists. This makes it easy, for example, to share a customized master page among several different websites.
- You can enable or disable the breadcrumb navigation on the site.
  You can also use the **Navigation Areas** section of the website's definition to select the navigation areas that are used on the site, which can change the links that appear on the website according to the definition of each navigation area.

To customize master pages, see Creating a custom master page.

To customize navigation areas, see Using sitemaps.

## Configuration options: websites

These fields control the properties of websites that are defined in your system.

In the **Staff** site, go to **RiSE > Site Builder > Manage websites**. Do one of the following:

- Select **New > Website**.
- Select an existing website.

### Tips

- The **Access Settings** security options are the same throughout iMIS (see Using Access Settings). For best performance, use Preconfigured security sets.
- Some of the file locations described in this section are expressed as root-relative URLs based on the root (**~**) of the physical path for the IIS application or IIS website that hosts the iMIS content management website you are creating. For example, **~/App_Themes**, which in a default installation of an iMIS application server would be **C:\Program Files\ASI\iMIS\Net\App_Themes**.

**Status**

Specifies whether this definition object is in a **Working**, **PublishPending**, **Submitted**, **Published**, **Inactive**, or **Active** state. Click the expand icon to view further details, including who created the record, who modified it last, and dates of these changes.

- Content records in a **Working** state have been saved within the iMIS database, but the latest changes have not been made active on the associated iMIS content management websites by the associated publishing servers and their corresponding publishing service. The **Publish** command on the toolbar queues the content record to the associated publishing servers, during which the content record is in a **PublishPending** state and can be viewed in the **Pending Requests** detail for the associated publishing servers. After each publishing server has successfully processed the publishing request, the latest changes become visible on the associated websites and become active within iMIS, both of which are denoted by the **Published** state.
  If an iMIS user does not have content authority group (CAG) **Content Approver** permissions, they will see a **Submit** command instead of a **Publish** command. The **Submit** command queues a publishing request to the Page Builder **Task List** of all content authority group members who have **Content Approver** permissions. Alternatively, if workflow is enabled for the parent content folder, only those members of the content folder's assigned content authority group who have **Content Approver** permissions. Only a person with **Content Approver** permissions in at least one content authority group can actually publish content records.
- For all other definition objects, the publishing process is less complex and does not involve content authority group permissions, publishing servers, or the iMIS publishing service. When the object is in a **Working** state, the latest changes have been saved within the iMIS database, but they have not yet been made active within iMIS. The **Publish** command makes the latest changes active within iMIS.
- Websites in an **Inactive** state are offline so that browsers cannot view the website content, and instead see a 503 error (Service Unavailable) from IIS. Selecting the **Is this website active?** checkbox in the **Status** section of the website's definition puts the website in an **Active** state, enabling browsers to view the website content. Clearing the checkbox puts the website in an **Inactive** state.

**Properties tab (Manage websites)**

Name/Title of this Website
Specifies the name of this website within iMIS and iMIS content management windows and reports. This value also appears as the default browser window title when viewing the home page of the website, but you can override this default browser-facing website name in the root navigation item of the website's associated sitemap (by using the **Override Content Title** field).

URL Name of this Website
Specifies the unique site ID of this website as a hierarchical part of the complete URL to this website when the IIS application or IIS website used for iMIS content management is hosting more than one iMIS content management website.

This value is automatically generated when you enter the **Name/Title of this Website** to ensure that it will parse as a valid hierarchical part of a URL. For example, if there are spaces in the value that you specified in the **Name/Title of this Website** field, they are automatically converted to underscore characters in this field.

If you manually change this value, you must use a value that web browsers will correctly parse as a valid hierarchical part of the URI scheme used in URL syntax. You must also ensure that this value is unique among all iMIS content management websites.

URL(s) pointing to the IIS website root
Specifies one or more URLs that resolve to IIS applications or IIS websites that host your iMIS content management websites. The staff or consultants who install iMIS content management on your organization's web servers should provide you with a list of URLs that correspond to each web server.

The URLs that you specify in this field determine exactly which servers will host this iMIS content management website. Use commas to delimit each URL after the first one.

For example, if you want this website to be hosted on three external web servers in different geographic locations, you would specify the three URLs that resolve to the IIS application or IIS website used for hosting iMIS content management websites on each of the three servers. This requires that iMIS content management has already been installed on each server.

Secure URL(s) pointing to the IIS website root

If you have installed security certificates in IIS on the servers that host this website, specify the secure versions of same URLs that you entered in the **URL(s) pointing to the IIS website root**. The number and order of this list must exactly match the **URL(s) pointing to the IIS website root** field.

> **Note:** In order to run your site using SSL, you must change your Secure URL to point to the IIS website root.

### To set up SSL in a RiSE website

After SSL is installed in IIS, you must change the default site setup for each RiSE site for which SSL will be enforced.

1. In the **Staff** site, go to **RiSE > Site builder > Manage websites**.
2. Edit the website.
3. Change the **URL(s) pointing to the IIS website root** to **http://YourDomain.com** or **http://your external IP** or **http://YourMachineName**.
4. Change the **Secure URL(s) pointing to the IIS website root** to Change the URL(s) pointing to the IIS website root to https://YourDomain.com or https://your external IP or https://YourMachineName.
5. Save & Publish the entire website.

> **Note:** You will need to set up the SSL for each website you want to run under SSL. Using the default URL of localhost will not work by Microsoft's design.

> **Note:** For the Desktop and Advanced Accounting Console, an internal IP address must be used. The external IP address can be used for RiSE sites.

The IIS website root (above) points to more than one RiSE website

Appends the **URL Name of this Website** to each of the **URLs defined in the URL(s) pointing to the IIS website root** field. For example, if the **URL(s) pointing to the IIS website root** is **http://www.mywebsite.com/**, and the **URL Name of this Website** is **events**, then the full URL to this website would be **http://www.mywebsite.com/events**.

When cleared, the **URL(s) pointing to the IIS website root** cannot be used for any other iMIS content management website except this one.

Make this website the default
Makes this iMIS RiSE website the website that is displayed when a browser requests only the URLs specified in**URL(s) pointing to the IIS website root** or **Secure URL(s) pointing to the IIS website root** without also appending the segment corresponding to the value specified in the **URL Name of this Website**. You cannot clear this box directly, because there must always be one such iMIS RiSE website that is specified as the default to display if a URL does not include the URL Name of the website. To clear this box you must edit the definition of another website that shares the same website root URL and select this checkbox in the other website's definition.

This checkbox does not need to be selected if the iMIS RiSE website is the only one being hosted by the IIS application or IIS website that is (indirectly) specified by the **URL (s) pointing to the IIS website root** field. Saving a single instance of a secure SSL website will automatically select this checkbox and mark it as **Default**. If multiple instances point to the same website root and the default is deleted you must set another secure SSL website as **Default** for security reasons. At least one secure SSL website must always be selected as the **Default**.

Website-specific parent content folder
Specifies the site-specific folder that contains the content that is included when the website is copied.  When a new website is created, the field is hidden until you save the website and then the path is auto-populated with the website name (@/website name). On existing websites, the field defaults to blank. If you choose to copy this website later, only the content within this site-specific folder will be copied.

Advanced
This section includes options for the integration of third-party APIs.

- Google Analytics script – If you are using Google Analytics to track website activity, paste the script provided by Google Analytics. For more information, refer to Tracking your site with Google Analytics.

### Look and Feel tab

Folder containing template content

Specifies the relative Document System path beneath the root of the content folder hierarchy (@) to the folder that contains the content records that define the content areas of a template. Use the format **@/etc/etc**. You can use this field to reuse customizations you might have made to the content area files for another website that shares the same template design, which spares you maintaining multiple sets of the same customized content records.

---

MasterPage/Template to use for the site's layout

Specifies the ASP.NET master page to use for the layout of the entire website or special types of website pages as indicated by the field name. You can use this site's layout field to reuse a customized master page among several different websites, rather than maintain multiple versions of the same customized master page. The master pages shown in the list are the contents of the **~/Templates/MasterPages folder**.

---

Theme (colors, fonts, etc.) to use for the site's "look and feel"

Specifies the ASP.NET theme to use for the visual look and feel of the website. You can use this field to reuse a customized theme among several different websites, rather than needing to maintain multiple sets of the same customized theme files. The themes shown in the list are the contents of the **~/App_Themes** folder.

---

MasterPage/Template to use for "Print this page" type functionality

Specifies the layout to use to render print-friendly page views, such as called by the printer icon: 

---

MasterPage/Template to use for Text Only requests

Specifies the layout to use to render text-only page views, such as called by the text icon: 

To enable the text-only mode button, set the ShowTextOnly = true in your (.master) file

```
protected override void CreateChildControls()
{
  ShowTextOnly = true;
```

---

```
    base.CreateChildControls();
}
```

The Text Only button will only appear if your master page file also contains a TemplatePageTasks ContentPlaceHolder:

```
<asp:ContentPlaceHolder ID="TemplatePageTasks" runat="server"></asp:ContentPlaceHolder>
```

MasterPage/Template to use for Pop-up windows
Specifies the layout to use to render pop-up windows, such as used by the **Send this page** icon:

Use breadcrumbs on this site
Enables breadcrumbs (the hierarchical path of links to the current content) that appear directly between the global navigation and the page contents.

### Navigation Areas

This area lists all of the navigation areas that are defined for use in the iMIS content management environment. The Edit icon on the list ( ) enables you to **add** new navigation areas to the system, **delete** existing navigation areas, or **select** existing navigation areas to change their properties.

The specific navigation areas that you select here determine which navigation areas are available for use by the navigation items that you define in the sitemap for this website. You must ensure that the master page used by this website contains elements that support all of the navigation areas that you select.

The master page of every template supports the four default navigation areas (**Primary**, **Secondary**, **Auxiliary**, and **Footer**). If you select any navigation area for use in this website besides these four defaults, you must ensure that the master page used by the website contains the elements needed to support that navigation area.

iMIS can support a maximum of 30 navigation areas, and each navigation area must have a unique **Name**.

**Warning!**

Avoid deleting a navigation area, because doing so will remove it from the entire system, which affects all iMIS content management websites in the system. When you delete a navigation area, all navigation items that are currently defined to be displayed in that area will still appear in that navigation area in rendered website pages. The master page contains a framework for the navigation area, and published navigation items still contain the properties that make them be displayed in the deleted navigation area. The navigation area will not completely disappear from all of your rendered websites until you edit and save every navigation item in the system that currently uses it.

When defining a navigation area, the following properties are displayed. Not all of these properties are actually used by every navigation area. The specific properties that are used depend on which of the three ASI-developed controls are used in the website's master page to render the navigation area. For more information, refer to Defining navigation areas and breadcrumb areas.

- **Navigation Pane Code** – (read only) Specifies a unique identifier that must be used in the **NavigationPaneCode** attribute of various **asi**: and **asiweb**: controls used in master pages to support navigation areas. When you add a new navigation area, this code is displayed as **0** until you click **Save** and then **select** the navigation area to view its properties. (For more information, refer to Defining navigation areas and breadcrumb areas.)
- **Static Display Levels** – Specifies how many levels of the sitemap hierarchy (which is zero-based) to display by default in this navigation area, based on the value of the **Starting Level** field. For example, if this value is set to 2 and **Starting Level** is set to 3, then the 3rd and 4th levels below the sitemap root are displayed in the navigation area.
  Only navigation items that are active and not hidden are displayed. Controlled respectively by the fields **This navigation item is active** and **This navigation item is hidden**, both located the **Options** section of the definition for a navigation item.

  If the range specified by this value comprises more than one level, the rendered list of navigation links is by default collapsed to the first level, requiring users to click one of the parent links in the range to expand that node to show the child links. This default behavior

can be overridden on a per-navigation-item basis by selecting the **This navigation item is expanded by default** checkbox in the **Options** section of the navigation item's definition.

> **Note:** This value is ignored by the **asi:PageNav** and **asi:PageNavR** controls that (by default) render the **Primary** navigation area, and by the **asiweb:NavigationList** control that (by default) renders the **Auxiliary** and **Footer** navigation areas.

- **Dynamic Display Levels** – Specifies how many additional levels in the sitemap hierarchy to display when the lowest level of the range specified in **Static Display Levels** is expanded, either by user action or because the **This navigation item is expanded by default** checkbox is selected in the **Options** section of the definition for a navigation item.
  Only navigation items that are active and not hidden are displayed. Controlled respectively by the checkboxes **This navigation item is active** and **This navigation item is hidden**, which are both located in the **Options** section of the definition for a navigation item.

  > **Note:** This value is ignored by the **asi:PageSubNav** control that (by default) renders the **Secondary** navigation area, and by the asiweb:NavigationList control that (by default) renders the **Auxiliary** and **Footer** navigation areas.

- **Starting Level** – Specifies the level of the sitemap hierarchy (which is zero-based) that constitutes the first (initial) level of the **Static Display Levels** field. The value 1 corresponds to the first level immediately beneath the sitemap root (~). For example, if this value is set to 3 and **Static Display Levels** is set to 2, then the 3rd and 4th levels below the sitemap root are displayed in the navigation area.

  > **Note:** This value is currently ignored by the following ASI-developed controls for rendering content areas: **asi:PageNav**, **asi:PageNavR**, **asi:PageSubNav**, and **asiweb:NavigationList**. As a result, this field has no effect on navigation area behavior in the current release.

## Managing websites

In the iMIS Staff site, you can manage sitemaps, websites, and shortcuts by selecting **RiSE > Site Builder**. To manage sitemaps, please see Using sitemaps.

Website management is the process of configuring and maintaining the appearance, navigation structure, and content authoring environment for your iMIS websites.

Website management comprises three general workflows:

- The process of **defining the appearance and navigation** structure of your iMIS content management websites entails the following actions, which should be performed in the order shown:

a. Defining website look and feel. Choose a specific mix of available master pages and themes.
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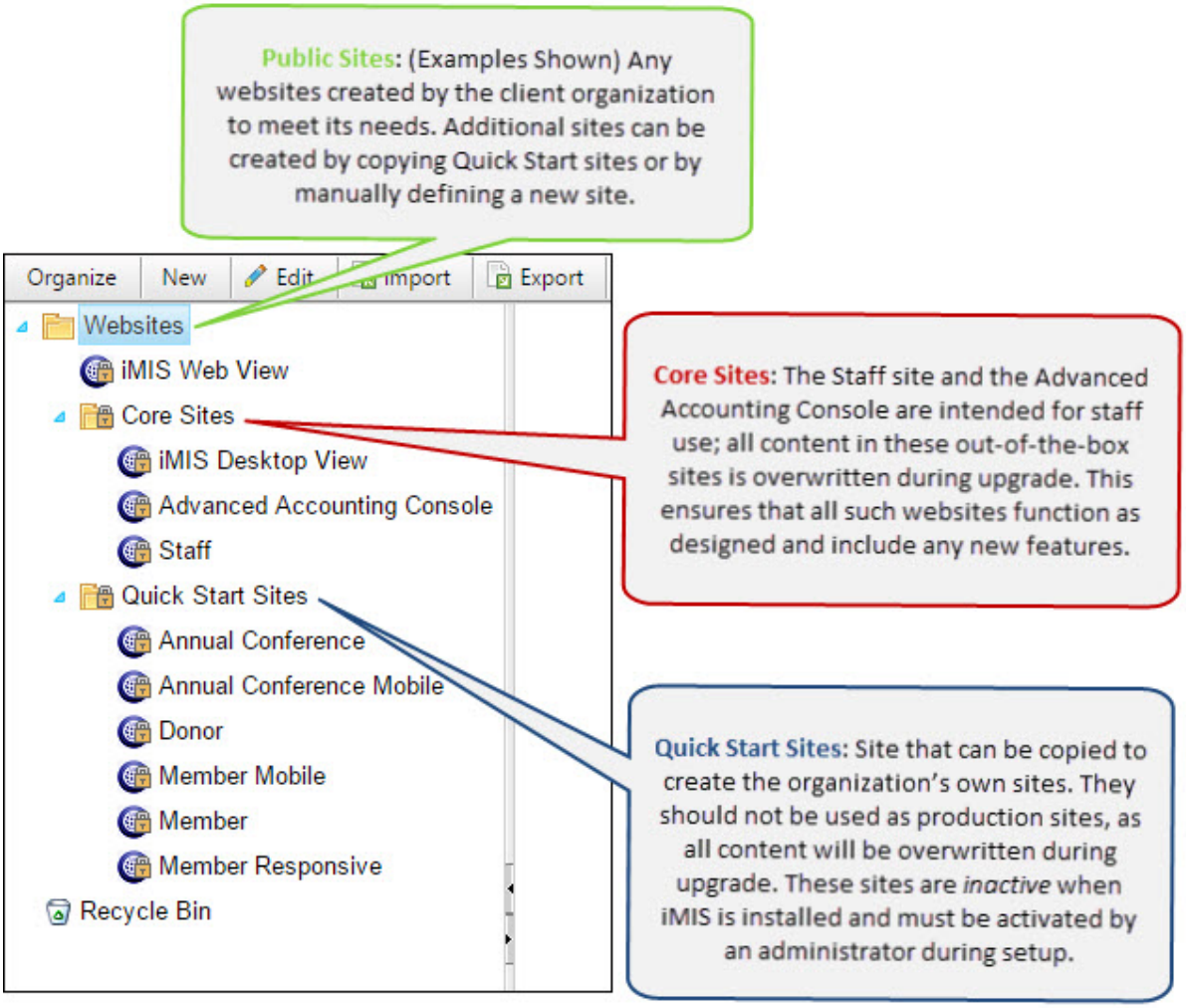
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g. (optional) Importing content from a staging server if you choose to develop and test new content and navigation outside of your production environment.

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- Managing the priority of pending publication requests|topic=Website maintenance to speed up a publishing request that is behind many others in the publishing queue.
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Click to view image




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### Website appearance and structure definition

Website appearance and structure definition is the process of defining the look and feel and the navigation of your iMIS content management websites.

The initial look and feel of an iMIS content management website is chosen when the administrator first defines iMIS content management websites. However, anyone with access to the Site Builder tool can subsequently change the look and feel of an existing website in various ways by using the **Look and Feel** section of the website's definition:

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- You can enable or disable the breadcrumb navigation on the site.
  You can also use the **Navigation Areas** section of the website's definition to select the navigation areas that are used on the site, which can change the links that appear on the website according to the definition of each navigation area.

To customize master pages, see Creating a custom master page.

To customize navigation areas, see Using sitemaps.

### Configuration options: websites

These fields control the properties of websites that are defined in your system.

In the **Staff** site, go to **RiSE > Site Builder > Manage websites**. Do one of the following:

- Select **New > Website**.
- Select an existing website.

**Tips**

- The **Access Settings** security options are the same throughout iMIS (see Using Access Settings). For best performance, use Preconfigured security sets.
- Some of the file locations described in this section are expressed as root-relative URLs based on the root (**~**) of the physical path for the IIS application or IIS website that hosts the iMIS content management website you are creating. For example, **~/App_Themes**, which in a default installation of an iMIS application server would be **C:\Program Files\ASI\iMIS\Net\App_Themes**.

**Status**

Specifies whether this definition object is in a **Working**, **PublishPending**, **Submitted**, **Published**, **Inactive**, or **Active** state. Click the expand icon to view further details, including who created the record, who modified it last, and dates of these changes.

- Content records in a **Working** state have been saved within the iMIS database, but the latest changes have not been made active on the associated iMIS content management websites by the associated publishing servers and their corresponding publishing service. The **Publish** command on the toolbar queues the content record to the associated publishing servers, during which the content record is in a **PublishPending** state and can be viewed in the **Pending Requests** detail for the associated publishing servers. After each publishing server has successfully processed the publishing request, the latest changes become visible on the associated websites and become active within iMIS, both of which are denoted by the **Published** state.
  If an iMIS user does not have content authority group (CAG) **Content Approver** permissions, they will see a **Submit** command instead of a **Publish** command. The **Submit** command queues a publishing request to the Page Builder **Task List** of all content authority group members who have **Content Approver** permissions. Alternatively, if workflow is enabled for the parent content folder, only those members of the content folder's assigned content authority group who have **Content Approver** permissions. Only a person with **Content Approver** permissions in at least one content authority group can actually publish content records.
- For all other definition objects, the publishing process is less complex and does not involve content authority group permissions, publishing servers, or the iMIS publishing service. When the object is in a **Working** state, the latest changes have been saved within the iMIS database, but they have not yet been made active within iMIS. The **Publish** command makes the latest changes active within iMIS.
- Websites in an **Inactive** state are offline so that browsers cannot view the website content, and instead see a 503 error (Service Unavailable) from IIS. Selecting the **Is this website active?** checkbox in the **Status** section of the website's definition puts the website in an **Active** state, enabling browsers to view the website content. Clearing the checkbox puts the website in an **Inactive** state.

**Properties tab (Manage websites)**

Name/Title of this Website
Specifies the name of this website within iMIS and iMIS content management windows and reports. This value also appears as the default browser window title when viewing the home page of the website, but you can override this default browser-facing website name in the root navigation item of the website's associated sitemap (by using the **Override Content Title** field).

URL Name of this Website
Specifies the unique site ID of this website as a hierarchical part of the complete URL to this website when the IIS application or IIS website used for iMIS content management is hosting more than one iMIS content management website.

This value is automatically generated when you enter the **Name/Title of this Website** to ensure that it will parse as a valid hierarchical part of a URL. For example, if there are spaces in the value that you specified in the **Name/Title of this Website** field, they are automatically converted to underscore characters in this field.

If you manually change this value, you must use a value that web browsers will correctly parse as a valid hierarchical part of the URI scheme used in URL syntax. You must also ensure that this value is unique among all iMIS content management websites.

URL(s) pointing to the IIS website root
Specifies one or more URLs that resolve to IIS applications or IIS websites that host your iMIS content management websites. The staff or consultants who install iMIS content management on your organization's web servers should provide you with a list of URLs that correspond to each web server.

The URLs that you specify in this field determine exactly which servers will host this iMIS content management website. Use commas to delimit each URL after the first one.

For example, if you want this website to be hosted on three external web servers in different geographic locations, you would specify the three URLs that resolve to the IIS application or IIS website used for hosting iMIS content management websites on each of the three servers. This requires that iMIS content management has already been installed on each server.

Secure URL(s) pointing to the IIS website root

If you have installed security certificates in IIS on the servers that host this website, specify the secure versions of same URLs that you entered in the **URL(s) pointing to the IIS website root**. The number and order of this list must exactly match the **URL(s) pointing to the IIS website root** field.

> **Note:** In order to run your site using SSL, you must change your Secure URL to point to the IIS website root.

### To set up SSL in a RiSE website

After SSL is installed in IIS, you must change the default site setup for each RiSE site for which SSL will be enforced.

1. In the **Staff** site, go to **RiSE > Site builder > Manage websites**.
2. Edit the website.
3. Change the **URL(s) pointing to the IIS website root** to **http://YourDomain.com** or **http://your external IP** or **http://YourMachineName**.
4. Change the **Secure URL(s) pointing to the IIS website root** to Change the URL(s) pointing to the IIS website root to https://YourDomain.com or https://your external IP or https://YourMachineName.
5. Save & Publish the entire website.

> **Note:** You will need to set up the SSL for each website you want to run under SSL. Using the default URL of localhost will not work by Microsoft's design.

> **Note:** For the Desktop and Advanced Accounting Console, an internal IP address must be used. The external IP address can be used for RiSE sites.

The IIS website root (above) points to more than one RiSE website

Appends the **URL Name of this Website** to each of the **URLs defined in the URL(s) pointing to the IIS website root** field. For example, if the **URL(s) pointing to the IIS website root** is **http://www.mywebsite.com/**, and the **URL Name of this Website** is **events**, then the full URL to this website would be **http://www.mywebsite.com/events**.

When cleared, the **URL(s) pointing to the IIS website root** cannot be used for any other iMIS content management website except this one.

Make this website the default
Makes this iMIS RiSE website the website that is displayed when a browser requests only the URLs specified in**URL(s) pointing to the IIS website root** or **Secure URL(s) pointing to the IIS website root** without also appending the segment corresponding to the value specified in the **URL Name of this Website**. You cannot clear this box directly, because there must always be one such iMIS RiSE website that is specified as the default to display if a URL does not include the URL Name of the website. To clear this box you must edit the definition of another website that shares the same website root URL and select this checkbox in the other website's definition.

This checkbox does not need to be selected if the iMIS RiSE website is the only one being hosted by the IIS application or IIS website that is (indirectly) specified by the **URL (s) pointing to the IIS website root** field. Saving a single instance of a secure SSL website will automatically select this checkbox and mark it as **Default**. If multiple instances point to the same website root and the default is deleted you must set another secure SSL website as **Default** for security reasons. At least one secure SSL website must always be selected as the **Default**.

Website-specific parent content folder
Specifies the site-specific folder that contains the content that is included when the website is copied.  When a new website is created, the field is hidden until you save the website and then the path is auto-populated with the website name (@/website name). On existing websites, the field defaults to blank. If you choose to copy this website later, only the content within this site-specific folder will be copied.

Advanced
This section includes options for the integration of third-party APIs.

- Google Analytics script – If you are using Google Analytics to track website activity, paste the script provided by Google Analytics. For more information, refer to Tracking your site with Google Analytics.

### Look and Feel tab

Folder containing template content

Specifies the relative Document System path beneath the root of the content folder hierarchy (@) to the folder that contains the content records that define the content areas of a template. Use the format **@/etc/etc**. You can use this field to reuse customizations you might have made to the content area files for another website that shares the same template design, which spares you maintaining multiple sets of the same customized content records.

---

MasterPage/Template to use for the site's layout

Specifies the ASP.NET master page to use for the layout of the entire website or special types of website pages as indicated by the field name. You can use this site's layout field to reuse a customized master page among several different websites, rather than maintain multiple versions of the same customized master page. The master pages shown in the list are the contents of the **~/Templates/MasterPages folder**.

---

Theme (colors, fonts, etc.) to use for the site's "look and feel"

Specifies the ASP.NET theme to use for the visual look and feel of the website. You can use this field to reuse a customized theme among several different websites, rather than needing to maintain multiple sets of the same customized theme files. The themes shown in the list are the contents of the **~/App_Themes** folder.

---

MasterPage/Template to use for "Print this page" type functionality

Specifies the layout to use to render print-friendly page views, such as called by the printer icon: 

---

MasterPage/Template to use for Text Only requests

Specifies the layout to use to render text-only page views, such as called by the text icon: 

To enable the text-only mode button, set the ShowTextOnly = true in your (.master) file

```
protected override void CreateChildControls()
{
  ShowTextOnly = true;
```

---

```
    base.CreateChildControls();
}
```

The Text Only button will only appear if your master page file also contains a TemplatePageTasks ContentPlaceHolder:

```
<asp:ContentPlaceHolder ID="TemplatePageTasks" runat="server"></asp:ContentPlaceHolder>
```

MasterPage/Template to use for Pop-up windows
Specifies the layout to use to render pop-up windows, such as used by the **Send this page** icon:

Use breadcrumbs on this site
Enables breadcrumbs (the hierarchical path of links to the current content) that appear directly between the global navigation and the page contents.

### Navigation Areas

This area lists all of the navigation areas that are defined for use in the iMIS content management environment. The Edit icon on the list ( ) enables you to **add** new navigation areas to the system, **delete** existing navigation areas, or **select** existing navigation areas to change their properties.

The specific navigation areas that you select here determine which navigation areas are available for use by the navigation items that you define in the sitemap for this website. You must ensure that the master page used by this website contains elements that support all of the navigation areas that you select.

The master page of every template supports the four default navigation areas (**Primary**, **Secondary**, **Auxiliary**, and **Footer**). If you select any navigation area for use in this website besides these four defaults, you must ensure that the master page used by the website contains the elements needed to support that navigation area.

iMIS can support a maximum of 30 navigation areas, and each navigation area must have a unique **Name**.

**Warning!**

Avoid deleting a navigation area, because doing so will remove it from the entire system, which affects all iMIS content management websites in the system. When you delete a navigation area, all navigation items that are currently defined to be displayed in that area will still appear in that navigation area in rendered website pages. The master page contains a framework for the navigation area, and published navigation items still contain the properties that make them be displayed in the deleted navigation area. The navigation area will not completely disappear from all of your rendered websites until you edit and save every navigation item in the system that currently uses it.

When defining a navigation area, the following properties are displayed. Not all of these properties are actually used by every navigation area. The specific properties that are used depend on which of the three ASI-developed controls are used in the website's master page to render the navigation area. For more information, refer to Defining navigation areas and breadcrumb areas.

- **Navigation Pane Code** – (read only) Specifies a unique identifier that must be used in the **NavigationPaneCode** attribute of various **asi**: and **asiweb**: controls used in master pages to support navigation areas. When you add a new navigation area, this code is displayed as **0** until you click **Save** and then **select** the navigation area to view its properties. (For more information, refer to Defining navigation areas and breadcrumb areas.)
- **Static Display Levels** – Specifies how many levels of the sitemap hierarchy (which is zero-based) to display by default in this navigation area, based on the value of the **Starting Level** field. For example, if this value is set to 2 and **Starting Level** is set to 3, then the 3rd and 4th levels below the sitemap root are displayed in the navigation area.
  Only navigation items that are active and not hidden are displayed. Controlled respectively by the fields **This navigation item is active** and **This navigation item is hidden**, both located the **Options** section of the definition for a navigation item.

  If the range specified by this value comprises more than one level, the rendered list of navigation links is by default collapsed to the first level, requiring users to click one of the parent links in the range to expand that node to show the child links. This default behavior

can be overridden on a per-navigation-item basis by selecting the **This navigation item is expanded by default** checkbox in the **Options** section of the navigation item's definition.

> **Note:** This value is ignored by the **asi:PageNav** and **asi:PageNavR** controls that (by default) render the **Primary** navigation area, and by the **asiweb:NavigationList** control that (by default) renders the **Auxiliary** and **Footer** navigation areas.

- **Dynamic Display Levels** – Specifies how many additional levels in the sitemap hierarchy to display when the lowest level of the range specified in **Static Display Levels** is expanded, either by user action or because the **This navigation item is expanded by default** checkbox is selected in the **Options** section of the definition for a navigation item.
  Only navigation items that are active and not hidden are displayed. Controlled respectively by the checkboxes **This navigation item is active** and **This navigation item is hidden**, which are both located in the **Options** section of the definition for a navigation item.

  > **Note:** This value is ignored by the **asi:PageSubNav** control that (by default) renders the **Secondary** navigation area, and by the asiweb:NavigationList control that (by default) renders the **Auxiliary** and **Footer** navigation areas.

- **Starting Level** – Specifies the level of the sitemap hierarchy (which is zero-based) that constitutes the first (initial) level of the **Static Display Levels** field. The value 1 corresponds to the first level immediately beneath the sitemap root (~). For example, if this value is set to 3 and **Static Display Levels** is set to 2, then the 3rd and 4th levels below the sitemap root are displayed in the navigation area.

  > **Note:** This value is currently ignored by the following ASI-developed controls for rendering content areas: **asi:PageNav**, **asi:PageNavR**, **asi:PageSubNav**, and **asiweb:NavigationList**. As a result, this field has no effect on navigation area behavior in the current release.

### Defining shortcuts

iMIS supports the ability to define friendly URL shortcuts, so that an easy-to-remember URL redirects to a specific page. You can create these shortcuts for any of your websites

and link the shortcuts to a URL or content record.

Do the following to create a new shortcut URL.

1. In the Staff site, go to **RiSE > Site Builder > Manage shortcuts**.
2. Click **Add New**.
3. Provide values for the shortcut URL:

a. Select the website you are creating a shortcut for in the **For Websites** drop-down list.
b. Select the shortcut you want to use in the **Shortcut** drop-down list, or enter a new Shortcut name. The Shortcut name should not be the same as the name of a website or a top-level folder in Page Builder.
c. Enter the URL or content record in the **URL or Content Record** field.
d. Enter a description of the shortcut in the **Description** field.

4. Click **Save**.
5. You can click the **Shortcut** to test the link.

For example, create an **Events** shortcut that points to the **Conference List** page. You can do this either by entering the URL to the page (**~/Events/Conferences/ConferenceList.aspx**) or by selecting the content record (**@/Events/Conferences/ConferenceList**). After inserting the shortcut, the link **www.yourwebsite/Events** automatically displays **www.yourwebsite/Events/Conferences/ConferenceList.aspx**.

By default, shortcuts apply to all of your websites. For example, if you define an **Events** shortcut for all sites, the shortcut always displays the same content record, regardless of which website the user is visiting, **www.yourwebsite/events** or **www.otherwebsite/events**. But you can also define shortcuts for a specific site. For example, you might want your mobile website to display a different content record for **www.mobilesite/events**. In that case, select your mobile site from the **For Website** drop-down list and point the **Events** shortcut to the content record you prefer.



**Note:** System shortcuts used in the Quick Start Sites cannot be edited or deleted. Shortcuts included in the product for **All Sites** behave as defaults shortcuts. They cannot be deleted because they are used by content items, but they can be edited

to point to different content.

**Note:** Your shortcuts will not be overwritten during upgrade.

### Configuration options: shortcut URLs

These fields control the properties of shortcut URLs that are defined in the system.

In the Staff site, go to **RiSE > Site Builder > Manage shortcuts**:

Do one of the following:

- Click **Add New**.
- Click **Edit selected** to an existing, selected shortcut.

**For Websites**

The **All Sites** option applies the shortcut to all websites in the system. Select a specific site to only apply the shortcut to a single website. If you enter an iMIS URL for the shortcut, it's important to ensure that all of your sites have the specified relative navigation item path in their respective sitemaps.

**Shortcut**

The name of the shortcut. Do not enter the name of an existing folder path for the website.

**URL or Content Record**

Enter a URL or select a content record to display when a user navigates to the shortcut. If you enter a URL, replace the site's root URL with **~**, for example **~/Events/Conferences/ConferenceList.aspx**.

**URL Parameter**

You can tell the URL to open on a specific section of the page. For example, say you want event dashboards to open on the Showcase tab by default. In the URL Parameters field, enter Event_Dashboard=1.

**Description**

(optional) Enter a description for the shortcut.

## URL rewriting in iMIS

When someone visits your website, iMIS uses a URL Rewriter to determine which page to display as they navigate your site. The Rewriter parses the URL and then looks for a matching definition for the following elements, which are resolved in the following order:

1. Virtual directory name.
2. Website URL:
a. Go to **RiSE > Site Builder > Manage websites**.
b. Select a website.
c. See the value for the **URL Name of this Website** field.
3. Links to a content folder that contains a content record with a **Publish File Name** of **Default**.
4. URL shortcuts for a particular website:
a. Go to **RiSE > Site Builder > Manage shortcuts**.
b. See the value for the **Shortcut** field.
5. URL shortcuts set up for All sites:
a. Go to **RiSE > Site Builder > Manage shortcuts**.
b. See the value for the **Shortcut** field.
6. Navigation path:
a. Go to **RiSE > Site Builder > Manage sitemaps**.
b. Select a navigation item.
c. (**Properties** tab) See the value for the **Content or URL to Link to** field.
7. Navigation codes:
a. Go to **RiSE > Site Builder > Manage sitemaps**.
b. Select a navigation item.
c. (**Properties** tab) See the value for the **Navigation Code** field.
For example, consider the URL **http://mysite.com/mbr/events**. If you have a URL shortcut named **events** and a navigation code named **events**, the page associated with the URL shortcut is rendered, instead of the page associated with the navigation code.

## Page Builder

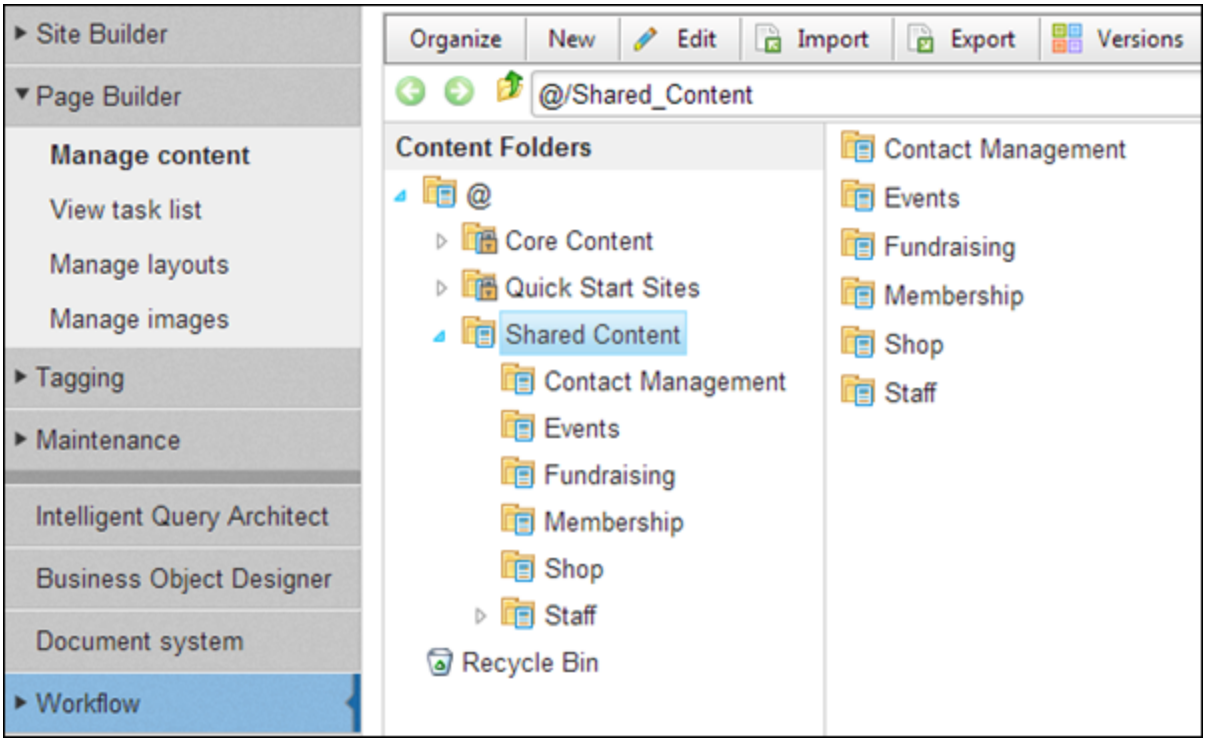
Content infrastructure definition is the process of defining the objects that secure, organize, and collect your content, and that assist with managing web content authoring activities.

All content records in the **Core Content** and **Quick Start Sites** content folders are protected as System content records and cannot be edited or deleted. If you want to update a System content record, create a copy of it, and then edit the copy. Be sure to also update any navigation items or shortcuts that point to that content record.

Content records are in folders that make clear their usage:

- **Core Content** holds essential iMIS content records. Be prepared to recreate any customizations you introduce there.
- **Quick Start Sites** holds sample content records. Refer to Quick Start Sites for comparison, but make no changes.

Click to view image




*See also*

- Content authoring
- Defining content folders
- Enabling workflow for content authoring
- Creating custom layouts using Bootstrap grids
- Managing images

## Content authoring

Web content authoring is the process of creating page-level content for your content management websites. Web content authoring comprises the following activities:

- Defining the content records that populate the content areas of your website pages, optionally using workflow and Easy Edit features to help with this task.
- Managing images that you use in your content.

### Before you begin

You cannot perform web content authoring tasks until after the following tasks are performed:

- Defined content authority groups (CAGs) to control who can define/approve content records and upload images and other file types for use in content records
- Defined content folders in which to create your content records
- (optional) Assigned content authority groups to specific content folders to enable workflow for the content records in that folder
- (optional) Defined tags and tagged list formats for use in your content records
- (optional) Defined iMIS content management user-defined fields (UDFs) for use in your content records

### Putting it all together

Web content authoring includes the following actions, performed as needed:

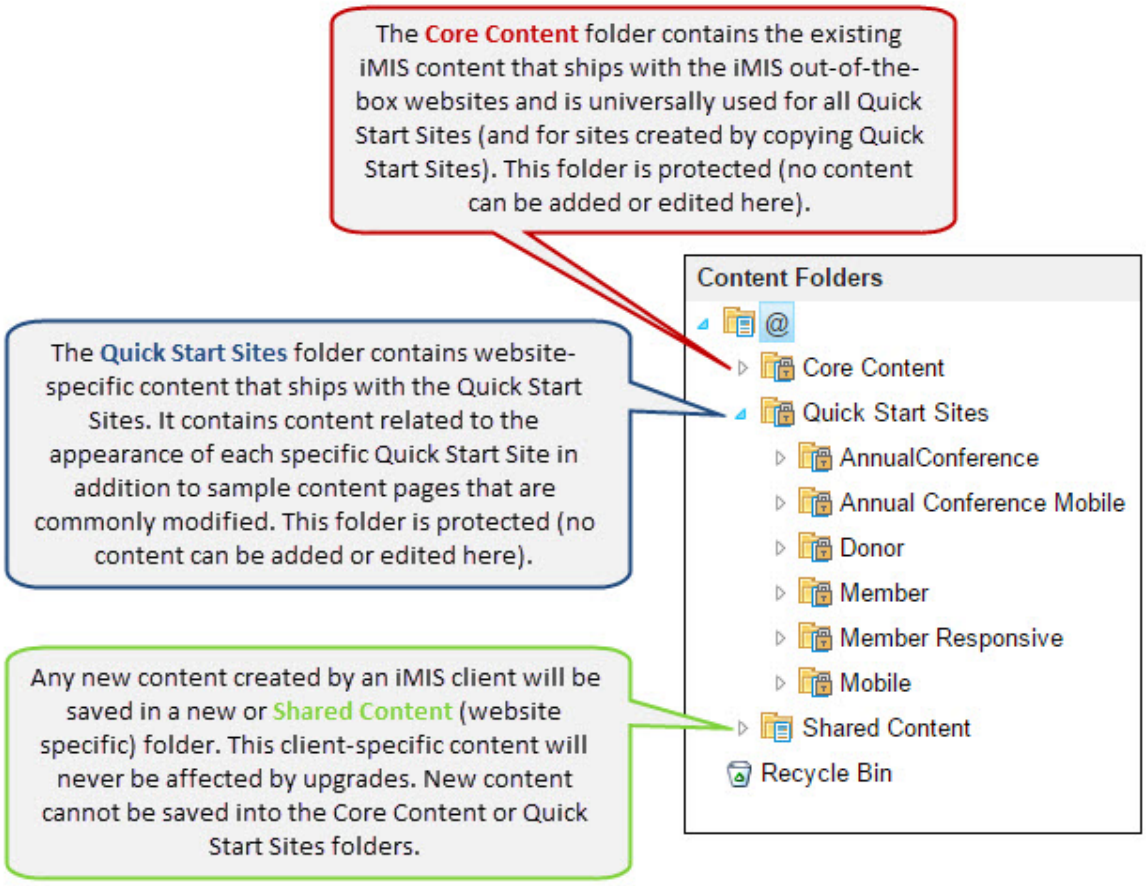
- Managing content records, each of which is the source of a content area on a rendered web page. You can define these on an ad hoc basis as needed, or by tracking your current and available authoring work in your Page Builder Task List:
- Revise pages for your website by adding one or more content items to a content record or configuring existing content items in the content record, or both. Save the changes and then publish the content record. In moments, the changes become live on all iMIS content management websites that use that content record. You might need to refresh the page in your browser to see the changes.
- If you're creating a brand new page, you must link the content record to a navigation item in the website's sitemap to add the published content record to the website. This is typically done by the person who manages the website.

- Many content items come with iMIS content management, and your iMIS implementers might have added custom content items as well. To learn about content items and what they do, see Creating Dynamic Content Items, RiSE Settings, and iMIS Dynamic Content Items Gallery.
- Managing images for use in content records.
- Approving content records for publication or deletion by authors who do not have **Content Approver** permissions.
- Browsing your website to review its content and using Easy Edit (see Revising website content with Easy Edit) to edit the underlying content records (or to log a change request for a content revision if you do not have Content Editor permissions for a given content record).

> **Note:** Full users can perform all web content authoring tasks. Full, Casual, and Public users can define and revise content by using the Easy Edit feature of iMIS content management.

**Managing content**

Click to view image




Defining content records

Do the following to define and create content records:

1. Go to **RiSE > Page Builder > Manage content**.
2. Select the content folder in which you want to create the content record. Do one of the following:
   - Select **New > Website Content** to create a new content record.
   - Click **Edit** to modify an existing content record.
   - Select **Organize > Delete** to delete an existing content record.
3. Enter a **Title** for the content record. If you would like to include the title of a dynamic content item with the title of your content record, select the **Use dynamic page title** checkbox.

> **Note:** The content record supplies the name of your webpage unless you choose to override with a navigation item title.

> **Note:** If a content record contains several dynamic content items, it is recommended that you turn dynamic page titles off for the entire page in order to limit the title length.

4. Enter a **Publish File Name** for the content record.
5. (**Definition** tab) Select a layout in the **Content Layout** drop-down list.
6. Click **add content** to add one or more content items to each content item zone.
7. Select the content item you want to use. Click **OK**.
8. Configure each content item to define its individual content. To modify an existing content record:

a. Select the content record.
b. Click **Edit**.
c. Click **Configure** on the content item.
d. Configure the content item.

9. Provide the following for each content record:

- **Definition**
- **Properties**
- **Current Tags**
- **Access Settings**

10. If the parent content folder has been enabled for content authoring workflow, you can optionally change the default settings:

a. Select the parent folder.
b. Click **Edit**.
c. (**Workflow Management** tab) Modify the content record.

You can also click and drag content items to rearrange them within a content item zone or between different content item zones. It's also possible to copy or move existing content items from one content record to another.

> **Note:** All content records in the Core Sites and Quick Start Sites content folders are protected as System content records and cannot be edited or deleted. If you want to update a System content record, create a copy of it, and then edit the copy. Be sure to also update any navigation items or shortcuts that point to that content record.

Publishing content records

When you first create a content record, or when you make changes to an existing **Published** content record, that particular version of the content record is not visible on any iMIS content management websites until it is published. You have two publishing options:

- Save and publish immediately: Before closing the content record, select **Save** and **Publish** to make your changes immediately visible on all websites that use the content record.
- Save, then publish later: If you **Save** the content record without publishing, the content record is marked with a status of **Working**. To publish the content record, select it and then click **Publish** in the Document System toolbar.

  After publishing your content record, the status changes briefly to **PublishPending**, and then to **Published** once it has been fully rendered to an **.aspx** file on all web servers that host the relevant iMIS content management websites.

Copying or moving content items to another content record

Do the following to copy or move a content item to another content record.

1. Go to **RiSE > Page Builder > Manage content**.
2. Select the content record you want to move or copy.
3. Click **Edit**.
4. In the content item header, click **Copy To** or **Move To**. The Document Browser window is displayed.
5. Select the content record to which you want to move the content item.
6. Click **OK**.
7. Click **Save** or **Save & Publish**.

Copying or moving content records to another content folder

You can move content records into different content folders by dragging and dropping them into a different folder. Do the following to move content records into other content folders.

1. Go to **RiSE > Page Builder > Manage content**.
2. Select the content record you want to move.
3. Select **Organize > Cut**.
4. Select the content folder to which you want to move the content record.
5. Select **Organize > Paste**.

Do the following to copy content records into other content folders:

1. Select the content record you want to copy.
2. Select **Organize > Copy**.
3. Select the content folder to which you want to move the content record.
4. Select **Organize > Paste**.

When you move or copy a content record into a new content folder, you must republish it to make sure that the content record is made visible on all websites associated with the new content folder, as well as removed from all websites that were associated with the old content folder.

When you move or copy a content record that was originally in a workflow-enabled content folder (a content authority group is assigned to the content folder) into another workflow-enabled folder, the content record's assigned content owner remains unchanged if:

- The new folder's content authority group also lists the assigned content owner as a member.
- The assigned content owner has **Content Editor** content authority group permissions in the new content folder's content authority group.

If either of these conditions is false, then the assigned **Default Owner** of the new content folder’s content authority group is assigned as the new content owner for this instance of the content record.

The tags inherited from ancestors in the content folder hierarchy are recalculated based on the content record's new position in the hierarchy. Although the new inherited tags are

visible immediately within the Page Builder tool, website searches for these tags will not find the content records until you republish them.

Reverting to an earlier version of a content record

Every time you publish a content record, the previously published version is saved as an **Archived** version. Do the following to revert to an older archived version.

1. Go to **RiSE > Page Builder > Manage content**.
2. Select the content record.
3. Click **Versions**.
4. Select an archived version
5. Click **Revert**. A warning message is displayed.
6. Click **OK** and **Close**.

The archived version you select is turned into a new **Working** version at the top of the list, and all previous versions remain intact. When you close the window, the archived version is the version you'll now see in the content folder. As with any **Working** content record, you can publish the content record when you are ready to push it to your iMIS content management websites.

Preventing content records from expiring

Content records in a workflow-enabled content folder can be set to expire a certain number of days after they were last published. The content record's assigned content owner receives several email notifications, and corresponding entries in their Page Builder **Task List**:

- Before a content record is due to expire.
- When it expires.
- After it has expired, if the system has not automatically deleted the content record upon expiration.

Set the content record expiration parameters.

Click for details

1. Go to **RiSE > Page Builder > Manage Content**.
2. Select the content folder in which you are setting expiration parameters on content records.

3. Click **Edit**.
4. Select the **Workflow Management** tab.
5. Select an **Authority Group** to assign a CAG to the content folder.
6. Click **Save** and **Cancel**.
7. Select the content record for which you are setting expiration parameters.
8. Click **Edit**.
9. Select the **Workflow Management** tab.
10. Select a content owner in the **Owner of this content** list.
11. Specify a time for the content to expire in the **Content is considered expired [n] days after last published** field, or specify a date for the content to expire in the **Content set to expire** field.
12. Select the **Automatically remove expired content?** option.

If you receive notice of an upcoming expiration, you can do the following to prevent the content record from expiring:

1. Go to **RiSE > Page Builder > View task list**.
2. Click the content record's title in **Content that has expired or will soon expire**.
3. Click **Publish**. This republishes the content record, which restarts the expiration clock.

Manually deleting expired content records that were not auto-deleted

When a content record expires and the **Automatically delete expired content?** checkbox is selected in the **Workflow Management** tab of the content record's definition, the system automatically does the following:

- Sets the content record's status to **Recycled**.
- Moves the content record to the **Recycle Bin**.
- Removes the corresponding rendered .aspx file from IIS on all web server hosts to which the content record has been published.

However, if the **Automatically delete expired content?** checkbox is not selected and a content record expires, nothing happens until the content owner selects the expiration notice in the Page Builder **Task List** and clicks **Delete Selected**. This does the following:

- Sets the content record's status to **Recycled**.
- Moves the content record to the **Recycle Bin**.
- Removes the corresponding .aspx file from all web servers.

Purging or restoring deleted content records

(A content record that has expired and been deleted is moved to the **Recycle Bin** at the bottom of the content folder hierarchy.

Do the following to permanently purge specific content records:

1. Go to **RiSE > Page Builder > Manage content**.
2. Select **Recycle Bin**.
3. Press **Ctrl** and select the content you want to permanently purge.
4. Select **Organize > Purge**.

Do the following to permanently purge all items:

1. Select **Recycle Bin**.
2. Select **Organize > Empty the Recycle Bin**.

Do the following to restore a deleted content record:

1. Select **Recycle Bin**.
2. Select the deleted content record to restore.
3. Click **Versions**.
4. Select the first **Recycled** version, or the desired earlier version.
5. Click **Revert**. The content record is moved to its original content folder and its status changes to **Working**. You must republish the content record to create a rendered version again on all associated iMIS content management websites.

> **Note:** If the content record's original parent folder no longer exists or is in the **Recycle Bin**, the restored content record is placed in the root folder (**@**) of the tree. You must move it into an appropriate content folder before you can publish the content record.

Troubleshooting

- You can edit content records with the **Easy Edit** feature. Casual and Public users cannot perform the tasks described here because they cannot access iMIS content management. However, they can use the Easy Edit feature to revise existing content records.
- You must have some or all of the following content authority group (CAG) permissions in at least one content authority group to which you belong:

- To create or edit content records, you must have **Content Editor** content authority group permissions.
- To publish content records without requiring approval from another person, you must have **Content Approver** content authority group permissions. Without these permissions, you will see a **Submit** command (instead of a **Publish** command) in the Document System toolbar, which submits a publishing request to all **Content Approvers** defined in the system.
- To delete content records without requiring approval from another person, you must have **Content Approver** content authority group permissions, and you must have **Delete** Document System permissions for each content record. Without these permissions, you will see an **Organize > Request Delete** command in the Document System toolbar, but it will only submit a deletion request to all **Content Approvers** defined in the system. You must also have **Content Approver** content authority group permissions to use the **Organize > Cut** command, as this action effectively deletes the content record from its current content folder.
- You must have both **Read** and **Edit** Document System permissions on each content folder in which you create new content records. To edit existing content records, you must have both **Read** and **Edit** Document System permissions on each content record. To delete content folders, you must have **Delete** Document System permissions on each content folder. The Document System permissions from the parent content folder are copied into each newly created content record, but can be changed later.
- You must have **Select** Document System permissions on each content record to which you assign tags.
- With the help of those who perform website management, you must determine in which content folder to create the content record. Every content folder specifies important criteria that define how the system should manage content, and automatically applies these criteria to the content records created in that content folder. For example, the content folder specifies which iMIS content management websites the content records will be published to, and also specifies the content authority group that determines the default workflow for the content records, such as who is notified when a content record nears its expiration date.

- You should not create content records in the root content folder (the @ folder). It is unwise to specify system management criteria for content folders at the root level of the content folder hierarchy, as these criteria would be copied into all new content folders. By leaving the system default values intact in the root content folder, those who perform web-site management can design a more flexible authoring and publishing environment.
- Modifications to your master pages might be required if content items appear to overflow the boundaries of content item zones in the rendered pages. This requires modifying the template's master page and accompanying CSS files to make the Home page and interior page layouts larger than their default size.

> **Note:** Membership in the **SysAdmin** security role effectively grants the full set of Document System permissions and the full set of content authority group permissions (you are effectively a member of a **MasterAdmin** content authority group too). However, to participate in web content authoring workflow, a member of the **SysAdmin** role must be an explicitly-listed member of at least one content authority group.

> **Note:** The **Core Content** content folder and all of its descendant content folders and content records are protected for use by iMIS. The default Document System permissions for these content folders and content records permit editing only by members of the **SysAdmin** role.

Choosing Keywords and Description Text for a Content Record

External web-based search engines such as Google generally index the text that you specify in the **Description/Summary** field, and they generally ignore the keywords that you specify in the **Keywords/Metatags** field. The iMIS content management search engine, by contrast, looks in both of these fields for matches to the keywords specified in the search.

These two fields both generate <META> elements in the source code for a rendered content record, which are used by search engines to index pages and weight search results. The subject of <META> elements and search engines is extremely complex and has

spawned its own industry of consultants, but the Search Engine Watch website includes tips for optimizing your <META> elements for search engines.

Planning for tag inheritance in AdvancedSearch and ContentTaggedList content items
When choosing the tags to include in the configuration of an **AdvancedSearch** or **ContentTaggedList** content item, you must account for the effect of implied relationships between parent and child tags in the tag hierarchy. A tag's position in the tag hierarchy creates an underlying relationship that is not specifically displayed in the **Related Tags** section: parent tags are implicitly related to their children tags with a **more broadly defines** relationship, and children tags are implicitly related to their parent tag with a **further defines** relationship. This means that:

- The pre-filtered result set of a basic or advanced search includes all published content records that are tagged with any descendant of the tag that is matched by the search keywords.
- The pre-filtered result set of an advanced search includes all published content records that are tagged with any descendant of a tag that is specified in the configuration of the **AdvancedSearch** content item if the user selects that tag at runtime on the rendered page that contains the advanced search form.
- The pre-filtered result set of a rendered **ContentTaggedList** content item also includes published content records that are tagged with any descendent of a tag that is specified in the configuration of the **ContentTaggedList**.
- The content of the **Items by Tag Report** (in **Continuum > Reports**) does not list published content records that are tagged with any descendant of each tag in the report.

*See also:*

- Developer articles on iMISCommunity
- Microsoft Developer Network
- Telerik Documentation
- Search Engine Watch

**Tracking authoring work**
Use the Page Builder Task List (**RiSE > Page Builder > View task list**) to keep track of the unpublished content records that you have been working on, and also to review

content change requests that are available to be worked on.

- The **Content you are working on** section lists the content records that are still in a **Working** status and for which you were the last person to make any changes to the content record's definition.
- The **Content awaiting your approval** section lists the content publishing requests for all people that have Content Approver CAG permissions in at least one CAG to which they belong.
- The **Content deletion requests** section lists the content deletion requests for all people that have Content Approver CAG permissions in at least one CAG to which they belong.
- If you are the assigned content owner for a content record that is defined to have an expiration date, expiration notices for that content record are listed in the **Content that has expired or will soon expire** section when that date approaches, when the date actually occurs, and at defined intervals after the date has passed.
- The **Content change requests assigned to you** section lists the content records for which a change request was submitted by someone using the Easy Edit feature of iMIS content management, and for which you are the assigned content owner.
- The **Unassigned content change requests** section lists the content records for which a change request was submitted by someone using the Easy Edit feature of iMIS content management, but for which there is no assigned content owner.
  You can perform the following actions in the Page Builder Task List:

- View the contents of a change request email message. Select the envelope icon next to the change request.

  > **Note:** A closed envelope icon indicates that no one has looked at the contents of the change request email message. An open envelope icon indicates that somebody has looked at the contents of the change request email at least once, but this does not mean that anyone has worked on the request.

- Edit a content record's definition to incorporate the requested changes. Select the content record's title in the list.
- Mark content change requests as completed. Select the checkboxes next to the content change requests that you want to approve and click **Mark as Complete**. The publishing

requests are removed from the Page Builder Task List of all users, but the associated content records are not submitted for publishing. If you had not already published the content records while editing their definition, you must remember to publish them.

- Ask the submitters of content change requests for more information. Select the checkboxes next to the content change requests that you want to reject, and click **Respond to Selected**. A form is displayed that you can use to send an email message to the requesters with your questions or comments. No change is made to the content change requests, and they remain in the Page Builder Task List for all users.

Troubleshooting

- You must have **Content Editor** content authority group (CAG) permissions in at least one content authority group to which you belong.
- You must have both **Read** and **Edit** Document System permissions on each content record.

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**Approving content**

(Approving content records for publication

When a person who does not have **Content Approver** content authority group permissions defines a content record, they cannot directly publish the content record, because the **Publish** command is not available on the Document System toolbar. Instead, they see only a **Submit for Approval** command. This creates an entry in the **Content awaiting your approval** section of the Page Builder **Task List** of all users who have **Content Approver** content authority group permissions in at least one content authority group to which they belong. The status of the content record changes to **PublishRequested**.

From your Page Builder **Task List**, you can perform the following actions:

- Review a content record's definition by clicking the content record's title in the list.
- Approve publishing requests:

a. Select the checkbox next to the request that you want to approve.
b. Click **Approve Selected**.

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The associated content records are submitted for publishing and the publishing requests are removed from the Page Builder **Task List** for all users. No publishing window is displayed.

- Reject publishing requests:

a. Select the checkbox next to the request that you want to reject.
b. Click **Return Selected**.
   A form appears that you can use to send an email message to the requester that explains the reason for rejecting the selected requests. After completing the form, the **Status** of the associated content records is set to **Working**, and the publishing requests are removed from the Page Builder **Task List** for all users.

Approving content records for deletion

When a person who does not have **Content Approver** content authority group permissions deletes a content record using the Document System **Organize > Delete** command, an entry is created in the **Content deletion requests** section of the Page Builder **Task List** for all users who have **Content Approver** content authority group permissions in at least one content authority group to which they belong. The status of the content record changes to **DeleteRequested**.

From your Page Builder **Task List**, you can perform the following actions:

- Review a content record's definition by clicking its title in the list.
- Approve deletion requests:

a. Select the checkbox next to the requests that you want to approve.
b. Click **Delete Selected**.
   This sets the associated content records' status to **Recycled**, moves the content records to the **Recycle Bin**, and removes the corresponding .aspx files from all web servers. The deletion requests are also removed from the Page Builder **Task List** for all users.

- Reject deletion requests:

a. Select the checkboxes next to the ones that you want to reject.
b. Click **Respond to Selected**.

A form appears that you can use to send an email message to the requester that explains the reason for rejecting the selected requests. After completing the form, the deletion requests are removed from the Page Builder **Task List** for all users.

- Reject deletion requests without responding to the requestor:

a. Select the checkbox next to the request that you want to reject.
b. Click **Remove from List**.
   The deletion requests are removed from the Page Builder **Task List** for all users.

Troubleshooting

- You must have **Content Approver** content authority group permissions in at least one content authority group to which you belong. You must also have **Read** Document System permissions on each content record.
- To delete content records, you must have **Delete** Document System permissions on each content record.

### Revising content in place

To revise an iMIS content management website page by using the Easy Edit feature, log on to the website and click the Easy Edit icon located by default near the **Sign Out** link on every web page of the website. This enables the Easy Edit mode until you click the Easy Edit icon again to disable it.

When Easy Edit mode is enabled, you will see a variety of different Easy Edit icons appear in different content areas of each web page. Exactly which Easy Edit icons you see will depend on which content authority group permissions and Document System permissions you have on the underlying content records in the rendered web page.

If you have both **Content Editor** content authority group permissions in at least one content authority group to which you belong and **Edit** Document System permissions on the specific content record displayed in a content area:

- If the content record is used in the Main Content Area of an interior page, you will see an Easy Edit icon for the entire content record and for each content item in the content record.

- If the content item is included in a System content record, you will see no Easy Edit icons for the content items in the content record, but you will see one Easy Edit icon for the entire content record.
  The graphic used for each Easy Edit icon might look different, depending on what type of content items are used in the content record. For example, the Easy Edit icon for a **Content Html** content item will look different from the Easy Edit icon for a **ContentTaggedList** content item. Moreover, the Easy Edit icon for the entire content record will look different from both of those.

  If you are a member of at least one content authority group (regardless of your specific content authority group permissions) and you do not have **Edit** Document System permissions on the specific content record displayed in a content area, then if the content record is used in the Main Content Area of an interior page, you will see no Easy Edit icons for each content item in the content record, but you will see one Easy Edit icon for the entire content record.

  In all cases where you can see at least one Easy Edit icon, you can hover your mouse pointer over an Easy Edit icon to see the name of its associated content item or content record.

  The action that happens when you click on any of these Easy Edit icons depends on whether you have **Edit** Document System permissions to the underlying content records:

- If you have **Edit** permissions on the content record, you can edit the content item or content record directly:

a. Click the Easy Edit icon to open an editor that is similar to what you see in Page Builder.
b. Click **Save and Publish**, or click **Save As** if you have **Edit** permissions on the system content record.
c. Use your browser's **Refresh** button to display the changes that you have made to the web page.

- If you do not have **Edit** permissions on the content record, you cannot edit the associated content record. Instead, the system displays a form that you can use to enter a content change request, which is distributed as follows:

- If the content record is workflow-enabled (a content authority group is assigned to its parent content folder), an email message is sent to the content record's content owner, and a change request entry also appears in the content owner's Page **Builder Task List** as being assigned specifically to the content owner.
- If the content record is not workflow-enabled or simply has no assigned content owner, a change request entry appears in the **Unassigned content change requests** section of the Page Builder **Task List** for every user who has **Content Editor** permissions in at least one content authority group to which they belong. Even though these users do not receive an email from the system, they can view the contents of your email message by clicking the envelope icon next to the change request in their Page Builder **Task List**.

Using Easy Edit for a system content record

If you are modifying a system content record, your page will have a lone Easy Edit icon on the bottom of the page. Click this icon to open a modified edit page. Note the presence of a **Save As** button.

There are two scenarios where you will be asked to use the **Save As** Easy Edit approach: **Shortcuts** and **Sitemaps**.

Do the following to use Easy Edit to modify a system content record through Shortcuts (for example, an event detail, product detail, or account page):

1. Click the Easy Edit icon on your web page.
2. Make a change to your web page content.
3. Click **Save As**. You are prompted to save your content in the Shared Content folder.
4. Click **OK**.
5. Click **Save & Publish**.
6. Go to **Manage > Web Content Management > Site Builder > Manage Shortcuts**.
7. Find the shortcut that is currently pointing to the page you edited.
8. Note the values for **For Website** and **Shortcut**.
9. If the shortcut is for **All Websites** or your specific website, either edit the content record or create a site-specific content record using the following:
    a. Click **Add new**.
    b. In **For Websites**, select your website.
    c. In **Shortcut**, enter the value noted in Step 8.

d. In **URL or Content record**, click **select**. Select the new content record.
e. Click **Save**.
f. Go back to the page you were editing. Note in the URL, the web page is accessing the **Shared_Content** record. You can edit as normal.

Do the following to use Easy Edit to modify a system content record that is reached through your website's sitemap (for example, clicking on a navigation link):

1. Click the Easy Edit icon on your web page.
2. Make a change to your web page content.
3. Click **OK**.
4. Click **Save As**. You are prompted to save your content in the **Shared Content** folder.
5. Click **Save & Publish**.
6. Go to **Manage > Web Content Management > Site Builder > Manage Sitemaps**.
7. Find the sitemap for your website.
8. Click the navigation for the page you've edited.
9. In **Content or URL to Link to**, click **select**.
10. Find your new content record.
11. Click **Save**.
12. Click **Publish**.
13. Click **OK**.
14. Go back to the page you were editing. Note in the URL, the web page is accessing the **Shared_Content** record. You can edit as normal.

Troubleshooting

To edit a web page's underlying content records or content items by using the Easy Edit feature, you must have **Content Editor** content authority group permissions in at least one content authority group to which you belong, and you must also have **Read** and **Edit** Document System permissions for that content record. Without these permissions, you are instead presented with a form that submits a change request to the Page Builder **Task List** for all **Content Editors** defined in the system.

Tip: Why use Easy Edit?

Defining content records from within iMIS content management is a useful way to author new content, but it isn't always the most effective way to revise existing content. It can be

more effective to actually browse or surf through your iMIS content management website and use the Easy Edit feature to quickly open a page's underlying content record (or even a specific content item within the content record) for editing. When you've saved your changes, you can continue browsing the website and making further content revisions as needed.

### Defining content folders

Do the following to define content folders.

1. Go to **RiSE > Page Builder > Manage content**.
2. Select the content folder in which you want to create the new content folder.
3. Select one of the following:

- Go to **New > Website Content Folder** to create a new content folder.
- Click **Edit** to modify an existing content folder.
- Go to **Organize > Delete** to delete a content folder.

4. Define the content folder's **Properties**, **Workflow Management**, **Current Tags**, and **Access Settings**.

   In most cases, content folders are automatically published when you click **Save**. However, if you define an existing content folder that contains any content records with a status of **Working**, the content folder is not automatically published. You must subsequently click **Publish** from the toolbar to create an active **Published** version. You can choose to publish the children content records at the same time, if desired.

#### Copying or moving content folders to another content folder

You can move content folders into different content folders by dragging and dropping them into a different folder (go to **RiSE > Page Builder > Manage content**). You can also move content folders by selecting them, then using the toolbar commands **Organize > Cut** and **Organize > Paste**.

When you move or copy a content folder into a new content folder, you must re-publish the moved content folder to make sure that the content records inside the folder that you moved are made visible on all iMIS content management websites associated with the new parent content folder. This also ensures the moved content folder is removed from all websites that were associated with the old parent content folder.

When you move or copy a content folder that is workflow-enabled, the content folder's assigned content authority group and content owner remains unchanged.

The tags inherited from ancestors in the content folder hierarchy are recalculated based on the content folder's new position in the hierarchy. Although the new inherited tags are visible immediately within the Page Builder tool, you must re-publish all descendants of the content folder to ensure that website searches for these tags will find the folder's descendant content records.

### Reverting to an earlier version of a content folder

Every time you save or publish a content folder, the previous version is saved as an **Archived** version. Do the following to revert to an older archived version.

1. Go to **RiSE > Page Builder > Manage content**.
2. Select the content folder.
3. Click **Versions**.
4. Select an archived version and click **Revert**.

The version you selected is turned into a new **Working** version at the top of the list. When you close the window, this is the version you'll now see in the content folder hierarchy. As with any **Working** content folder, you can publish it when you are ready to make it an active **Published** version.

### Restoring or purging deleted content folders

A content folder that has been deleted is moved to the **Recycle Bin** at the bottom of the content folder hierarchy.

Do the following to permanently purge specific content folders:

1. Go to **RiSE > Page Builder >Manage content**.
2. Select the content folders in the **Recycle Bin**. Press **Ctrl** as you select content folders to select more than one folder.
3. Go to **Organize > Purge**.

Do the following to permanently purge all items in the Recycle Bin:

1. Select the **Recycle Bin**.
2. Go to **Organize > Empty the Recycle Bin**.

Do the following to restore a deleted content folder:

1. Select the deleted content folder.
2. Click **Versions**.
3. In the version history that appears, select the desired **Recycled** version.
4. Click **Revert** and then **OK**. The content folder is moved to its original location in the content folder hierarchy and its status is changed to **Working**. You must re-publish the content folder to create an active **Published** version again.

**Troubleshooting**

- You must have one or both of the following content authority group permissions in at least one content authority group to which you belong:
- To create new content folders, you must have **Folder Creator** content authority group permissions.
- To modify the properties of a content folder, you must have **Folder Editor** content authority group permissions.
- You must have both **Read** and **Edit** Document System permissions on each content folder in which you create new content folders. To edit existing content folders, you must have both **Read** and **Edit** Document System permissions on each content folder. To delete existing content folders, you must have **Delete** Document System permissions on each content folder. The Document System permissions from the parent content folder are copied into each newly created content folder, but can later be modified.
- You must have **Select** Document System permissions on each content folder to which you assign tags.
- To be the content owner of a content folder, you must have **Content Editor** content authority group permissions in the content authority group that is assigned to the content folder.



**Note:** The **iMIS** content folder and all of its descendant content folders and content records are protected for use by iMIS. The default Document System permissions for these content folders and content records permit editing only by members of the **SysAdmin** role.

**Concept: content folders**

A content folder contains a set of content records and other content folders in a hierarchical tree. Each content folder specifies important criteria that define how the system should publish and manage the workflow of content records within the content folder.

Children content records and content folders inherit the tags from their parent content folder (and therefore also the tags from all ancestor content folders), but no other attributes are inherited. However, some attributes are initially copied from the parent folder at the time of creation.

- The specific **Access Settings** from the parent folder are copied to new content records and content folders at the time of creation, which you can subsequently change as needed.
- The **Authority Group** value from the parent folder is copied to new content folders at the time of creation, which you can subsequently change as needed.
- The **Owner of this content** value from the parent folder is copied to new content folders at the time of creation, which you can subsequently change as needed.
- The **Content is considered expired *n* days after last published** value is copied to new content records and content folders at the time of creation, which you can subsequently change as needed.

> **Note:** For content folders that have a content authority group (CAG) assigned to them, the **Owner of this content** value is not copied to new content records that are created inside of it. Instead, content records automatically have this value set to specify the first person who created the content record, which you can subsequently change as needed.

> **Note:** A content record does not have a content owner automatically assigned if it was created by a person who is a member of the **SysAdmin** role, but who does not have **Content Editor** content authority group permissions in at least one content authority group.

**Concept: content layouts and Content Item zones**

A content layout is a predefined set of content item zones within a content record. Each content item zone can contain one or more content items, and you can drag and drop content items among the zones to rearrange the position in which content appears in a rendered content record.

**Concept: content owners**

(A content owner is related to the content authority group (CAG) that is assigned to a content folder and its children content records. Content owners are specified in the **Workflow Management** section of the content folder or content record definition.

Only members of the content authority group assigned to a content folder who also have **Content Editor** permissions within that content authority group are available to be manually assigned as the content owner for the content folder or for content records within that content folder.

When you create a new content folder, it copies the currently designated content owner for the parent content folder.  However, when you create a new content record, a different process is followed:

- If the person who created the content record is a person with **Content Editor** content authority group permissions in at least one content authority group, they are automatically assigned as the content owner for the content record. You can subsequently change this value to any person from the parent folder's content authority group who has **Content Editor** content authority group permissions.
- If the person who created the content folder does not have **Content Editor** content authority group permissions in any content authority group, for example, a person who is a member of the **SysAdmin** role, then no content owner is assigned.

The **Owner of this content** field serves a different function for content records and content folders:

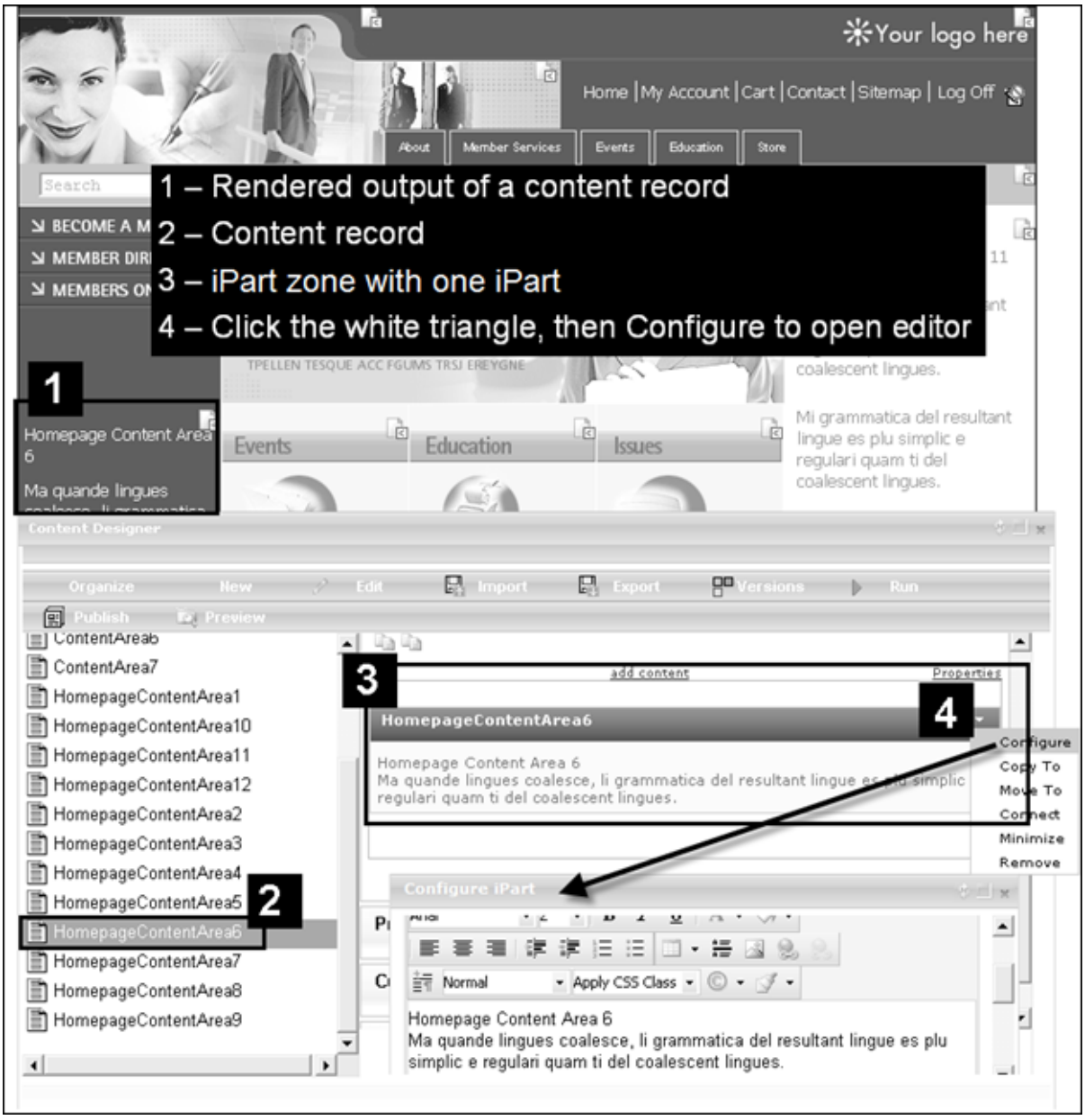
- For content records, the content owner:
- Receives email notification of pending expiration for the content record.
- Is assigned content change requests for the content record in the **Content change requests assigned to you** section of their iMIS content management **Task List**.

- For content folders, the content owner specifies which member of the assigned content authority group should replace the designated content owner of any child content records if the current owner assigned to a content record becomes ineligible for any reason.

**Concept: content records, content items, and content types**

A content record is an iMIS definition object, stored in the Document System, which specifies all the information needed to render a web page from an iMIS content management website. Instead of hand-coding the contents of a web page for your website, you define some basic properties and tags for the content record, choose a content layout, add various content items to the content item zones in the layout, and then define the properties for each content item. After the content record has been published to an **.aspx** file on the website, it is available for viewing by web browsers as a complete web page.

Click to view image




A content item is essentially a web widget in the ASP.NET environment. As with any web widget, you choose from different types of content items to insert in in the various content item zones in the content layout, then you configure each content item to populate that instance of it with the desired content. You can easily rearrange the rendered page contents by dragging a content item to a different location within the content item zones. A standard set of system-defined content items are available in iMIS, but staff or con-

sultants who are experienced in ASP.NET development can also easily add new content items for use when authoring content.

- The standard content items supplied with iMIS content management (listed in the **Content Gallery**) all have a corresponding content type, which tells iMIS how to create the corresponding content item within the system, how to edit it, how to display it, how to publish it, and so on.
- New complex content item that you add to your iMIS environment are also listed in the **Content Gallery** and must also have corresponding content types.
- A special ASI-supplied **ContentWebUserControl** content type is used as a generic default content type for all simple content items, or for ad-hoc web user controls that have been manually added to a content record.
- To see the **Communities Content Gallery**, you must have a **COMMUNITIES** license.

**Configuration options: content folders**

These fields control the properties of content folders that are defined in the system.

Go to **RiSE > Page Builder > Manage content** and do one of the following:

- Select **New > Website Content Folder**.
- Select an existing content folder, and then click **Edit**.

> **Note:** The **Core** content folder and all of its descendant content folders and content records are protected for use by iMIS. The default Document System permissions for these content folders and content records permit editing only by members of the **SysAdmin** role.

Status

Specifies whether this definition object is in a **Working**, **PublishPending**, **Submitted**, **Published**, **Inactive**, or **Active** state. Click the expand icon to view further details, including who created the record, who modified it last, and dates of these changes.

- Content records in a **Working** state have been saved within the iMIS database, but the latest changes have not been made active on the associated iMIS content management websites by the associated publishing servers and their corresponding publishing service. The **Publish** command on the toolbar queues the content record to the associated

publishing servers, during which the content record is in a **PublishPending** state and can be viewed in the **Pending Requests** detail for the associated publishing servers. After each publishing server has successfully processed the publishing request, the latest changes become visible on the associated websites and become active within iMIS, both of which are denoted by the **Published** state.
If an iMIS user does not have content authority group (CAG) **Content Approver** permissions, they will see a **Submit** command instead of a **Publish** command. The **Submit** command queues a publishing request to the Page Builder **Task List** of all content authority group members who have **Content Approver** permissions (or, if workflow is enabled for the parent content folder, only those members of the content folder's assigned content authority group who have **Content Approver** permissions). Only a person with **Content Approver** permissions in at least one content authority group can actually publish content records.

- For all other definition objects, the publishing process is less complex and does not involve content authority group permissions, publishing servers, or the iMIS publishing service. When the object is in a **Working** state, the latest changes have been saved within the iMIS database, but they have not yet been made active within iMIS. The **Publish** command makes the latest changes active within iMIS.
- Websites in an **Inactive** state are offline so that browsers cannot view the website content, and instead see a 503 error (Service Unavailable) from IIS. Selecting the **Is this website active?** checkbox in the **Status** section of the website's definition puts the website in an **Active** state, enabling browsers to view the website content. Clearing this checkbox puts the website in an **Inactive** state.

Folder Name
Specifies a version of the folder **Title** that meets the requirements for an IIS path segment to the rendered .aspx files for each content record in the folder. Every content folder created in iMIS content management has a corresponding IIS folder.

Default Website (for search)
Specifies the website for which searches will always include the content records within this content folder. This value is not inherited by any children content folders, although

when you create a new content folder this field will copy the current value from its parent content folder as a default value.

> **Note:** If iMIS returns no search results, be sure to designate some content folders to list the specific website in either of these fields.

Include content in Searches for these additional Websites
Specifies additional websites, other than the one specified in **Default Website (for search)**, for which searches will always include the content records within this content folder. These values are not inherited by any children content folders, although when you create a new content folder this field will copy the current values from its parent content folder as default values.

> **Note:** If you clear the **Always display content in default website** checkbox, be careful to specify only additional websites whose sitemaps include navigation items that link to all of the content records in this content folder.

> **Note:** If iMIS returns no search results, be sure to designate some content folders to list the specific website in either of these fields.

Always display content in default website
Displays the rendered version of a content record in this content folder in the context of the website specified in **Default Website (for search)** regardless of which website the search was performed on. When cleared, displays the rendered content record in the context of the website in which the search was made.

Publish on Servers
Specifies the publishing servers that should manage the publishing of all content records within this content folder.

- In the simplest case where you have only one publishing server defined in your iMIS content management environment, you should set this value to **All** for the root content folder (**@**) and set this value to **Inherit** on all folders beneath the root.

- In more complex environments with multiple publishing servers, you should generally use the **Custom** option to select one or more specific publishing servers for a given content folder and then set this value to **Inherit** on all folders beneath the one for which you chose a custom selection of publishing servers.

Workflow Management

Specifies whether content workflow is enabled for this content folder, and by default, all of its children content records too:

- If an **Authority Group** is assigned to this folder, then content workflow is enabled, and only the members of that content authority group (CAG) receive workflow notifications in their Page Builder **Task List** when changes occur to content records in the content folder.
- If no **Authority Group** is assigned, then any member of any content authority group in the system receives workflow notifications in their task list when changes occur to content records in the content folder.

The following fields appear only when a content authority group is assigned to a content folder:

- **Owner of this content** – Specifies which member of the assigned content authority group should replace the designated content owner of any child content records or content folders if the current owner assigned to a content record becomes ineligible for any reason. The drop-down list includes only those members of the assigned content authority group who have **Content Editor** permissions.
- **Content is considered expired *n* days after last published** – Specifies the default expiration interval for all content records in this folder. Expired content records are no longer rendered on iMIS content management websites, but the content record remains in the system with no change in status until it is manually deleted by selecting **Organize > Delete** on the Document System toolbar, or by using the **Delete Selected** button on a content authority group member's Page Builder **Task List**.

> **Note:** This default expiration behavior can be selectively overridden by the **Automatically delete expired content?** field in the definition of each content record.

Manually republishing the content record makes it appear again on the iMIS content management websites and resets the expiration interval.

The expiration interval can be effectively overridden for a specific content record in this folder by specifying a value smaller than the expiration interval for the **Automatic Publishing Frequency** field in the content record definition. This ensures that the expiration interval is never reached for that content record.

- **Update this value for content in this folder and all subfolders** – Automatically applies the setting for **Content is considered expired *n* days after last published** to the following when you save your changes to this content folder definition:
- all descendent content records
- descendant content folders with Workflow set up

Current Tags

Specifies the tags that are currently associated with this content folder. Clicking the **Modify** link displays a tag selection tree. Tags applied to a content folder are inherited by all descendant content records and content folders, not just the immediate children of this content folder. The **Tags inherited from parent hierarchy** area lists all tags that are being inherited from a content folder higher in the content folder hierarchy.

Only the inherited tags and the additional specific tags that you select here are used by the iMIS content management search engine. If you want search results to also find the descendant content records by descendant tags in the tag hierarchy, you must select the parent tag and also the specific descendant tags.

Although the iMIS content management search engine recognizes tag inheritance and finds descendant content records based on inherited tags, the **Items by Tag** report does not recognize tag inheritance and won't list the descendant content records and content folders for a tag that they inherit.

To choose useful tags for the dynamic handling of descendant content records, it helps to understand how tag-related functionality handles tag inheritance:

- The pre-filtered result set of a basic or advanced search includes all published content records that are tagged with any descendant of the tag that is matched by the search

keywords.

- The pre-filtered result set of an advanced search includes all published content records that are tagged with any descendant of a tag that is specified in the configuration of the **AdvancedSearch** content item if the user selects that tag at runtime on the rendered page that contains the advanced search form.
- The pre-filtered result set of a rendered **ContentTaggedList** content item also includes published content records that are tagged with any descendent of a tag that is specified in the configuration of the **ContentTaggedList**.
- The content of the **Items by Tag** report (in **Continuum > Content Reports**) does not list published content records that are tagged with any descendant of each tag in the report.

> **Note:** Tags are always overwritten on import. For example, if you import a content folder from a staging server to a production server, the assigned tags on the production server are overwritten by whatever tags were assigned on the staging server.

Access Settings

Specifies the Document System permissions granted for this definition object to iMIS security roles, security groups, specific iMIS users, iMIS member types, or to all Full and Casual users based on their assigned authorization levels.

- **Apply changes to all descendants** – Changes to this section, when saved, flow automatically to all descendant definition objects. When cleared, changes to this section apply only to the current definition object. This checkbox usually appears only on Document System folder objects.
- **Use a preconfigured security set** – Specifies a preconfigured security configuration to use for this definition object, which can be much simpler than using the **Make this available to** option to specify the permissions for definition objects. The specific permissions in the preconfigured security configuration are displayed (read-only) in the **Make this available to** area.

  If you select a preconfigured security configuration and then switch to the **Make this available to** option, the permissions granted by the preconfigured security configuration are

copied. This enables you to use a preconfigured security configuration as a starting point for defining custom permissions.

- **Make this available to** – Lists the roles, groups, users, member types, or authorization levels that have been enabled to define or view rendered output from this object. This option enables you to specify custom permissions for the definition object if none of the preconfigured security configurations meets your needs. The **SysAdmin**, **Content Administrator**, and **Everyone** roles are default system-defined security roles that are assigned to every definition object used by iMIS content management. The **SysAdmin** role is assigned in the definition of an iMIS user record, but the **Content Administrator** role is automatically assigned to every iMIS user who is a member of an iMIS content management content authority group (CAG) that is designated as a **Master Admin** content authority group.
  The permissions that can be assigned to each entry in the list are:

- **Full Control** – Enables all of the following permissions.
- **Read** – Enables users to see this object both in iMIS content management definition windows and as rendered output in iMIS content management websites, but they cannot change the object's definition.
- **Add** – Enables users to create new objects, or to paste or import an object into the Document System.
- **Edit** – Enables users to edit this object's definition, but not to delete the object.
- **Delete** – Enables users to delete this object.
- **Select** – (if displayed) Enables users to assign a tag to content folders and content records.

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**Configuration options: content records**

These fields control the properties of content records that are defined in the system.

Go to **RiSE > Page Builder > Manage content** and do one of the following:

- Select **New > Website Content**.
- Select an existing content record, and then click **Edit**.

You must be logged on to the website and have **Content Editor** permissions in at least one content authority group (CAG) in order to use the Easy Edit feature to modify a content record.

The **Save** options available for a content record are:

- **Save**: A **Working** version of the content record is saved. Publish the content record to make it the active version.
- **Save As**: This option is available on System content records. You can rename and save the content record to a new (non-System) folder. The **Save** and **Save & Publish** options are hidden.
- **Save & Publish**: This option is available if you have the **Content Approver** content authority group permission. When you **Save & Publish**, your changes are immediately visible on any iMIS content management website that uses the content record.
- **Save and Submit for Approval**: This option is available if you do not have the **Content Approver** content authority group permission. When you **Save and Submit for Approval**, your changes are saved and a content publishing request is submitted to the content folder's Content Approver.

> **Note:** Content records might also contain additional iMIS content management user-defined fields (UDFs). UDFs appear in the **Properties** section, beneath the **Mark as important until** field.

> **Note:** The iMIS content folder and all of its descendant content folders and content records are protected for use by iMIS. The default Document System permissions for these content folders and content records permit editing only by members of the **SysAdmin** role.

> **Note:** System content records cannot be edited or deleted. If you want to update a System content record, create a copy of it, and then edit the copy. Be sure to also update any navigation items or shortcuts that point to that content record.

> **Note:** You cannot use **Export** and **Import** to make copies of objects within the same iMIS database. To make copies, use **Organize > Copy** and **Organize > Paste**.

Status
Specifies whether this definition object is in a **Working**, **PublishPending**, **Submitted**, **Published**, **Inactive**, or **Active** state. Click the expand icon to view further details, including who created the record, who modified it last, and dates of these changes.

- Content records in a **Working** state have been saved within the iMIS database, but the latest changes have not been made active on the associated iMIS content management websites by the associated publishing servers and their corresponding publishing service. The **Publish** command on the toolbar queues the content record to the associated publishing servers, during which the content record is in a **PublishPending** state and can be viewed in the **Pending Requests** detail for the associated publishing servers. After each publishing server has successfully processed the publishing request, the latest changes become visible on the associated websites and become active within iMIS, both of which are denoted by the **Published** state.
  If an iMIS user does not have content authority group (CAG) **Content Approver** permissions, they will see a **Submit** command instead of a **Publish** command. The **Submit** command queues a publishing request to the Page Builder **Task List** of all content authority group members who have **Content Approver** permissions (or, if workflow is enabled for the parent content folder, only those members of the content folder's assigned content authority group who have **Content Approver** permissions). Only a person with **Content Approver** permissions in at least one content authority group can actually publish content records.
- For all other definition objects, the publishing process is less complex and does not involve content authority group permissions, publishing servers, or the iMIS publishing service. When the object is in a **Working** state, the latest changes have been saved within the iMIS database, but they have not yet been made active within iMIS. The **Publish** command makes the latest changes active within iMIS.

- Websites in an **Inactive** state are offline so that browsers cannot view the website content, and instead see a 503 error (Service Unavailable) from IIS. Selecting the **Is this website active?** checkbox in the **Status** section of the website's definition puts the website in an **Active** state, enabling browsers to view the website content. Clearing the checkbox puts the website in an Inactive state.

Title

Specifies what is rendered in the title of a browser window or browser tab when the rendered output of a content record is displayed. The words used in this field also factor into the relevancy weighting of search results. Go to **Settings > RiSE > Search configuration**.

> **Note:** This can be overridden by a navigation item title, if desired.

Use dynamic page title

When selected, enables any dynamic content item to append itself to the end of the page title as it is displayed in a browser window or tab. When a page uses multiple dynamic content items, it is recommended that you disable this feature.

Publish File Name

Specifies the name of the **.aspx** file to which this content record is published.

Generate full URL

Enables you to paste a full URL for this content record into the body of a content item (for example, **http://10.40.10.105/iMIS/ContactManagement/ContactLayouts/Personal.aspx**).

Generate Freelink

Enables you to paste a wiki-style internal link for this content record into the body of a content item (for example: `[[About_Us]]`). The freelink text is the defined **Publish File Name** of this content record. When the web page is rendered in a browser, the freelink is replaced by a standard URL link:

```
<a href=http://www.ourdomain.org/iMIS/Content/About_Us/About_Us.aspx>About_Us</a>
```

(optional) You can add replacement text to the freelink (for example, `[[About_Us | Learn about our organization]]`), which would be rendered as:

```
<a href=http://www.ourdomain.org/iMIS/Content/About_Us/About_Us.aspx>Learn about our organization</a>
```

If you have multiple content records with exactly the same **Publish File Name** (which is possible if the content records are in different content folders), you can assign a unique content code to each content record. The system will copy the content code instead of the name. Alternatively, you can manually add a content folder path to identify a specific content record (for example, `[[@/Legal_Services/About_Us]]`).

> **Note:** If you add a content folder path to a freelink, the freelink will not resolve correctly in rendered webpages if the target content record is moved to a different content folder. For this reason, it is generally best practice to ensure that all your content records are uniquely named and thereby avoid the need to add a content folder path to a freelink.

Content Layout

A content layout is a predefined set of content item zones within a content record. Each content item zone can contain one or more content items, and you can drag and drop content items among the zones to rearrange the position in which content appears in a rendered content record.

add content

Displays a **Content Gallery** browser that lets you select from available ASP.NET content items to add to this content item zone of the content record by selecting the desired content items and clicking **OK**. After the content items have been added to the zone, you can drag each content item into the order you want them to appear in that zone of the rendered web page.

The **Content** folder contains the system-defined content items that ship with iMIS, and are meant for general-purpose content authoring. For example, the **Content Html** content item enables you to author a block of HTML text, and the **Content Tagged List** content item enables you to specify the automatic inclusion of other content records or even entire content folders that have a certain tag associated with them.

The **Or, enter a path to a web user control** field allows implementers to specify a path to a user control that is not defined within the **Content Gallery**. See **Defining custom content items as content types**.

> **Note:** To see the Communities Content Gallery, you need a COMMUNITIES license.

To work with content items that have been added to a content record, click from the following commands on the content item's title bar:

- **Configure** – Displays a window that enables you to define the properties of the content item. For example, performing this action for a **Content Html** content item displays an HTML editor. When configuring a content item, click the link for Configuration Help.
- **Copy To** – Copies the content item to another content record.
- **Move To** – Moves the content item to another content record.
- **Connect** – Displays a connection editor that enables staff or consultants to define content item connections. Connections allow one content item to interact with another content item on the same content record. Not all content items support connections, so when configuring a content item, open the Configuration Help to determine the content item's connection options.
  When creating a new connection, the available connection types are listed, and a drop-down list enables you to select from the other content items on the same content record. For example, to configure content item A to act upon content item B, create a connection, and set content item A to be the **Object Consumer**. Set content item B to be the **Object Provider**. Each content item can only have one Consumer and one Provider per connection type. So a content item can only act as an Object Provider for one other content item, for example, not as an Object Provider for several other content items.

The connection editor lists all current connection points for the content item and allows you to define new connections. Each content item (consumer and provider) displays the connection once it is defined. For example, if you select content item A and connect it to content item B, and then look at the connections for B, you will see the connection there as well. Connections can also be disconnected from here.

Currently, connections can be of four types: **Object**, **Atom Object**, **Uniform Key**, or **String Key**. The type of connection to use depends on the implementation by the content item's author. Please refer to the specific content item's Configuration Help for details.

- **Minimize** – Collapses the content item 's preview box, instead displaying only the content item's title bar.
- **Restore** – Expands a collapsed content item to display its preview box.
- **Remove** – Removes the content item from the content record.

> **Note:** The content types defined in the system determine the behavior of ASP.NET content items controls within iMIS. Each content items control must have an associated content type, which tells iMIS how to create the corresponding content item within the system, how to edit it, how to display it, how to publish it, and so on. The system-defined content items in the **Content Gallery** all have a corresponding content type. A special **ContentWebUserControl** content type is used as the default content type for all custom content items that you add to a content record. You can optionally define entirely new content types to enable more sophisticated system handling of a custom content item that has been added to a content record.

Properties (the link at upper right of each content item zone)
Specifies the displayed title and CSS classes associated with this content item zone of the content record.

- **Title** – Specifies a title for the zone, which is displayed in the rendered output at the top of the zone, preceding the content items in that zone.
- **Title CSS Class** – Specifies a CSS **class** attribute for the ** ** element that comprises the rendered zone title. This class must be available in the stylesheets associated with the theme used for the associated website.

- **Zone CSS Class** – Specifies a CSS **class** attribute for the **<table>** element that comprises the rendered zone. This class must be available in the stylesheets associated with the theme used for the associated website.

Display within the template
Renders the content record within the content area of the website's master page. When cleared, renders the content record as a standalone web page that contains none of the navigation areas or graphic look-and-feel of the website's master page.

Content is restricted to members
Makes the rendered version of this content record non-readable unless:

- The person attempting to view the rendered content on the website is logged on to the website with a valid iMIS logon.
- The contact record that corresponds with the iMIS logon is a member type (customer type).

When cleared, the rendered version of this content record is readable by any user regardless of their member type.

Open in new browser window
Makes the rendered version of this content record open in a new browser window.

Content requires user to log in
Makes the rendered version of this content record non-readable unless the person attempting to view the rendered content on the website is logged on to the website with a valid iMIS logon. When cleared, the rendered version of this content record is readable by anonymous website visitors.

Content is secure (https://)
Makes the rendered version of this content record be displayed through a secured connection (SSL) to the web server regardless of which navigation itemsends the user to this content record, but only if each of the following conditions are also met:

1. The websites whose sitemap navigation items point to this content record have valid https:// URLs listed in the Secure URL(s) pointing to the IIS website root field in their definition.

> **Note:** Restart IIS whenever you change the **Secure URL(s) pointing to the IIS website root** setting. Note that **localhost** is not a valid **Secure URL**.

2. You have installed valid site certificates in IIS for each web server that hosts these websites.

Because a content record cannot know in which websites it will ultimately be used, there is no validation possible for this checkbox. If this content record ends up being served by a website that does not meet the above criteria, the content record will be displayed through a non-secured connection (http://).

Content allows user impersonation

> **Note:** In content item-based websites, enabling user impersonation is no longer required. Instead, you can use **On Behalf Of**, so that staff can complete transactions on behalf of your customers.

> **Note:** This option only applies to legacy sites such as Admin.master, public.master, 1501.master through 1600.master, or any custom master pages that contain pHIdImpersonation control.

If you are not using **On Behalf Of**, enable this option to make the rendered version of this content record available to logged-on iMIS users who are currently changing information on behalf of another user.

Go to **Contacts > Contact management** and click the **Change** link at the upper right of every window in this area of the product. When cleared, the rendered version of this content record is non-readable by iMIS users who are currently changing information on behalf of another user.

For example, assume that a content record is defined such that you do not have the required Document System permissions to view its rendered web page, but another user does have the permissions to view the rendered page. If you log on as yourself and use

the above technique to impersonate the other user, you will be able to navigate to the rendered page and view its contents if this checkbox is selected.

Description/Summary
Specifies a description of the content record that is oriented to the people who perform web content authoring, and which is also included in the **<META>** element's **description** attribute in the rendered page's source code for this content record. This text is not displayed in the rendered web page itself or in search results summaries, but the words used in the **<META>** element enable searches performed through the iMIS content management search engine, and also many external web-based search engines such as Google, to locate this content record even if the words are not actually used anywhere in the visible rendered content.

The words used in this field also factor into the relevancy weighting of search results. Go to **Settings > RiSE > Search configuration**, and review the **SE.SearchDescriptionHint** field.

Keywords/Metatags
Specifies the keywords that should be included in the **<META>** element's **keywords** attribute in the rendered page's source code for this content record. These keywords enable searches performed through the iMIS content management search engine to locate this content record even though these keywords are not actually used anywhere in the visible rendered content.

> **Note:** External web-based search engines such as Google do not typically index the contents of this <META> element.

The keywords used in this field also factor into the relevancy weighting of search results. Go to **Settings > RiSE > Search configuration**, and review the **SE.SearchKeywordHint** field.

Date of Publication
Specifies the publication date for this content record, for the purpose of filtering search results or for filtering and sorting of the output from **ContentTaggedList** content items.

For example, you could override the default (actual) date that this content record was published if you wanted searches based on a different date to find the rendered version of this content record.

> **Note:** If you manually change the publication date, the date will not change with future publishing of the content when you select **Publish All**. If the publication date is blanked out, the date will reset to the current date when the content is published.

Publish on Future Date
Specifies a delayed and automated publication date for this content record, enabling you to embargo the content by completing the content record now but ensuring that its rendered version does not become available on any websites until later.

Automatic Publishing Frequency
Specifies how frequently to automatically republish this content record. This field can be used to prevent a content record from ever being automatically expired if a non-zero value has been specified in the **Content is considered expired *n* days after last published** field for the content folder that contains the content record. You do this by specifying a value here that is smaller than the value in the **Content is considered expired…** field.

Mark as important until
Specifies the date after which the **New** icon for an entry in the rendered version of a **ContentTaggedList** content item will stop being displayed.

> **Note:** Note: This field affects only content records that contain a **ContentTaggedList** content item, and only if the **CM.UseImportantUntilDate** configuration option is enabled. Go to **Settings > RiSE > Page Builder configuration**.

Content code
Specifies a unique identifier for this particular content record that can be used to ensure that a navigation item will always point to this content record even if the content record's location in the Document System hierarchy changes at some future date. Normally if this

happens (by moving the content record to a different content folder), the **Content or URL to Link to** field in a navigation item must be manually changed to point to the new relative path of the content record within the Document System hierarchy.

However, if you specify this **ContentCode** value in the **Content or URL to Link to** field in a navigation item, then even if this content record is moved to another content folder or renamed, the navigation item will still point to this content record.

Cache duration
(enabled by default) You have the option to cache webpages on your server to improve website performance. This option only caches pages for unauthenticated users. A version of the page is cached for each major browser version that accesses the page (for example Firefox 14, IE9, and so forth). Pages can be cached for five seconds (**Short**), five minutes (**Medium**), one hour (**Long**) or **Default**. The **Default** system duration is set in **Page builder configuration** or **Quick setup** (go to **Settings > RiSE**).

When you enable this option, the first request for the content record generates and stores a cached version of the webpage on the server for the specified duration. Within that period of time, if another unauthenticated user visits the page using the same web browser type and version, then the page is loaded from the cache, instead of accessing the database again.

Consider what type of content the page displays when you choose the cache duration. For example, if the content record contains a **Content Tagged List**, and new data is tagged regularly, then you would likely only want to cache the page for a short or medium period of time. However, if the data is more static, like an article, then caching for a long period of time may make more sense.

The **Cache duration** is ignored if the content record contains any content items that require dynamic data, because dynamic data cannot be accessed from the cache. This applies to the **Payment Creator** content item, **Contact Account Creator** content item, **Contact Sign In** content item, **Cart Details Display** content item, **Submit Order Button Link** content item, **Confirmation Display** content item, and any **Content HTML** content items that contain script tags (such as C# code or JavaScript).

Page caching can be disabled site-wide when the following value is set to **false** within the website's web.config file:

```
<add key="Content.EnablePageCaching" value="true"/>
```

Content Parameters
(displayed only in content records that contain a custom content item)

Specifies the parameters for a custom content item that has been added to this content record. The exact parameters cannot be described here because they are defined in the custom content item and its associated content type. Contact the staff or consultants who created the custom content item for information about what you should enter in this field.

This content is part of the site's Template design
Enables this content record to populate a named content area of a template design. When cleared, the rendered version of this content record can only be viewed if it is pointed to by a navigation item.

The available content areas that you can specify in the associated Show in content area field are the first part of the .aspx file names listed in the Content Areas folder of the iMIS content management website folders created in IIS. For example, if you want this content record to be the content displayed for the HomePageContentArea6.aspx page in a website created with the master page template, you would specify HomePageContentArea6 in this field.

Workflow Management
(displayed only when a content authority group is assigned to the parent content folder, which means that content workflow is enabled for this content record)

- **Owner of this content** – Specifies which person should receive email notification when this content record approaches its expiration date, and should be assigned a content change request in their Page Builder **Task List** when an Easy Edit user requests a change to this content record. If the person who creates a content record has **Content Editor** content authority group permissions in at least one content authority group, that person is automatically assigned as the content owner. You can subsequently change

this value. The drop-down list includes only those members of the assigned content authority group who have **Content Editor** permissions.

- **Content is considered expired *n* days after last published** – Specifies the expiration interval for this content record. When expired, the content record is no longer rendered on iMIS content management websites, but the content record remains in the system with no change in status until it is manually deleted by using the **Organize > Delete** command on the Document System toolbar or by using the **Delete Selected** button on a content authority group member's Page Builder **Task List**. Manually republishing the content record makes it appear again on the iMIS content management websites and resets the expiration interval.
  The expiration interval can be effectively overridden by specifying a value smaller than the expiration interval for the **Automatic Publishing Frequency** field. This ensures that the expiration interval is never reached for that content record.
- **Content set to expire** – Specifies an exact expiration date for this content record. You can specify a value for this field only if the value specified for the **Content is considered expired *n* days after last published** field is **0**. Otherwise, this field is read-only.
- **Automatically delete expired content?** – Overrides the default expiration behavior described above by automatically deleting the content record when it has passed its expiration date. The content record is moved into the **Recycle Bin** at the bottom of the content folder hierarchy and its status is changed to **Recycled**.

Current Tags

Specifies the tags that are currently associated with this content record. The **Tags inherited from parent hierarchy area** lists all tags that are being inherited from a content folder higher in the content folder hierarchy. Clicking the **Modify** link opens a window that enables you to select the tags for this content record.

Only the inherited tags and the specific tags that you select here are used by the iMIS content management search engine. If you want search results to also find this content record by descendant tags in the tag hierarchy, you must select the parent tag and also the specific descendant tags.

Although the iMIS content management search engine recognizes tag inheritance and finds descendant content records based on inherited tags, the **Items by Tag** report does not recognize tag inheritance and won't list the descendant content records and content folders for a tag that they inherit.

To choose useful tags for the dynamic handling of a content record, it helps to understand how tag-related functionality handles tag inheritance.

- The pre-filtered result set of a basic or advanced search includes all published content records that are tagged with any descendant of the tag that is matched by the search keywords.
- The pre-filtered result set of an advanced search includes all published content records that are tagged with any descendant of a tag that is specified in the configuration of the **AdvancedSearch** content item if the user selects that tag at runtime on the rendered page that contains the advanced search form.
- The pre-filtered result set of a rendered **ContentTaggedList** content item also includes published content records that are tagged with any descendent of a tag that is specified in the configuration of the **ContentTaggedList**.
- The content of the **Items by Tag** report (in **Content Management > Reports**) does not list published content records that are tagged with any descendant of each tag in the report.

> **Note:** Tags are always overwritten on import. For example, if you import a content record from a staging server to a production server, the assigned tags on the production server are overwritten by whatever tags were assigned on the staging server.

Access Settings
Specifies the Document System permissions granted for this definition object to iMIS security roles, security groups, specific iMIS users, iMIS member types, or to all Full and Casual users based on their assigned authorization levels.

- **Apply changes to all descendants** – Changes to this section, when saved, flow automatically to all descendant definition objects. When cleared, changes to this section apply only to the current definition object. This checkbox usually appears only on

Document System folder objects.

- **Use a preconfigured security set** – Specifies a preconfigured security configuration to use for this definition object, which can be much simpler than using the **Make this available to** option to specify the permissions for definition objects. The specific permissions in the preconfigured security configuration are displayed (read-only) in the **Make this available to** area.
  If you select a preconfigured security configuration and then switch to the **Make this available to** option, the permissions granted by the preconfigured security configuration are copied. This enables you to use a preconfigured security configuration as a starting point for defining custom permissions.

- **Make this available to** – Lists the roles, groups, users, member types, or authorization levels that have been enabled to define or view rendered output from this object. This option enables you to specify custom permissions for the definition object if none of the preconfigured security configurations meets your needs. The **SysAdmin**, **Content Administrator**, and **Everyone** roles are default system-defined security roles that are assigned to every definition object used by iMIS content management. The **SysAdmin** role is assigned in the definition of an iMIS user record, but the **Content Administrator** role is automatically assigned to every iMIS user who is a member of an iMIS content management content authority group (CAG) that is designated as a **Master Admin** content authority group.
  The permissions that can be assigned to each entry in the list are:

- **Full Control** – Enables all of the following permissions.
- **Read** – Enables users to see this object both in iMIS content management definition windows and as rendered output in iMIS content management websites, but they cannot change the object's definition.
- **Add** – Enables users to create new objects, or to paste or import an object into the Document System.
- **Edit** – Enables users to edit this object's definition, but not to delete the object.
- **Delete** – Enables users to delete this object.
- **Select** – (iMIS content management only) Enables users to assign a tag to content folders and content records.

### Configuration options: content gallery

These fields control the properties of the standard iMIS content items that are defined in the system. By default, these fields are found in the following locations:

- In a content record, click **add content**, click a gallery folder, and select one of the listed content items to the content record. For an existing content item, click the down triangle at the far right of the content item's title bar, and then choose **Configure**.
- When using the Easy Edit, click the Easy Edit icon that relates to various content items in the content records used in the content areas of the page. You must be logged on to the website and have **Content Editor** permissions in at least one content authority group (CAG).
- To see the **Communities Content Gallery**, you need a **COMMUNITIES** license.

When you configure a content item directly from Easy Edit, the available **Save** options are:

- **Save**: A **Working** version of the content record is saved. Publish the content record to make it the active version.
- **Save and Publish**: This option is available if you have the **Content Approver** content authority group permission. When you **Save and Publish**, your changes are immediately visible on any iMIS content management website that uses the content record.
- **Save and Submit for Approval**: This option is available if you do not have the **Content Approver** content authority group permission. When you **Save and Submit for Approval**, your changes are saved and a content publishing request is submitted to the content folder's Content Approver.

When you configure a content item from a content record, you only have the option to **Save** or **Cancel**. You can publish your changes from the content record or the Document System toolbar.

Tips

To work with content items that have been added to a content record, click the drop-down arrow at the right of a content item's title bar and choose from the following commands:

- **Configure** – Displays a window that enables you to define the properties of the content item. For example, performing this action for a **Content Html** content item displays an

HTML editor. In configuration, you can access **Help** (  ) for most content items.

- **Copy To** – Copies the content item to another content record.
- **Move To** – Moves the content item to another content record.
- **Connect** – Displays a connection editor that enables staff or consultants to define content item connections. Connections allow one content item to interact with another content item on the same content record. Not all content items support connections, so when configuring a content item, open the Configuration Help to determine the content item's connection options.
  When creating a new connection, the available connection types are listed, and a drop-down list enables you to select from the other content items on the same content record. For example, to configure content item A to act upon content item B, create a connection, and set content item A to be the **Object Consumer**. Set content item B to be the **Object Provider**. Each content item can only have one Consumer and one Provider per connection type. So a content item can only act as an Object Provider for one other content item, for example, not as an Object Provider for several other content items.

  The connection editor lists all current connection points for the content item and allows you to define new connections. Each content item (consumer and provider) displays the connection once it is defined. For example, if you select content item A and connect it to content item B, and then look at the connections for B, you will see the connection there as well. Connections can also be disconnected from here.

  Currently, connections can be of four types: Object, Atom Object, Uniform Key, or String. The type of connection to use depends on the implementation by the content item's author. Please refer to the specific content item's Configuration Help for details.
- **Minimize** – Collapses the content item's preview box, instead displaying only the content item's title bar.
- **Restore** – Expands a collapsed content item to display its preview box.
- **Remove** – Removes the content item from the content record.

> **Note:** The content types defined in the system determine the behavior of ASP.NET content items controls within iMIS. Each content items control must have an

associated content type, which tells iMIS how to create the corresponding content item within the system, how to edit it, how to display it, how to publish it, and so on. The system-defined content items in the **Content Gallery** all have a corresponding content type. A special **ContentWebUserControl** content type is used as the default content type for all custom content items that you add to a content record. You can optionally define entirely new content types to enable more sophisticated system handling of a custom content item that has been added to a content record.

Other tips:

- Modifications to your master pages may be required if content items appear to overflow the boundaries of content item zones in the rendered pages. In general, this requires modifying the template's master page and accompanying CSS files to make the Home page and interior page layouts larger than their default size.
- Custom ASP.NET content items are not described in this section because they are not part of the standard set of content items shipped with iMIS.
- Implementers can add an ad hoc ASP.NET web user control to a content record by entering the relative path to the content item in the **Or, enter a path to a web user control** field.

Or, enter a path to a web user control
Specifies a relative URL from the root (**~**) of the physical path for the IIS application or IIS website that hosts your iMIS content management websites to a web user control that you want to insert into this content record. By default, the root corresponds to **C:\Program Files\ASI\iMIS\Net**. For example, **~/CustomControls/myUserControl.aspx**.

**Note:** Be sure to use forward slashes (/) for the URL segment delimiters.

**Configuration options: publishing options**
These fields determine how the system should process an iMIS content management definition object when you use the **Publish** command.

Go to **RiSE > Site Builder** or **Page Builder** and click **Publish** on the Document System toolbar for most iMIS content management definition objects.

Tips

- When you choose to **Save and Publish** a content record or content item, then no publishing options are displayed. Your changes to the content record or content item are automatically published and immediately visible on all websites that use it.
- You can multi-select content records (by holding **Shift** or **Ctrl** while selecting them) to publish a group of content records all in one operation.
- If you publish a content folder, the publishing process automatically includes all descendants (content records and sub folders) of that content folder too, and the publishing option you select is applied to each descendant.
- When you make changes to the definition of a content folder, the system flags only that content folder as now being in a **Working** state. However, changes made to a content folder usually affect the behavior of all of its descendant content records and content folders, so you generally must re-publish all of its descendants too. This is where the **Publish All Items** and **Publish Working Items, Regenerate Published Items** options become useful:
- Use **Publish All Items** to effectively reset the expiration countdown timer for all descendant content records that are controlled by the **Content is considered expired *n* days after last published** field.
- Use **Publish Working Items, Regenerate Published Items** if you do not want to affect the current expiration countdown timer for all descendant content records.

Publish children as well?
(displayed only for some definition object types)

If the selected definition object or folder has children, such as a navigation item in the **Manage sitemaps** tree or a subfolder in the **Manage websites** tree, then all descendants of the definition object or folder will be published too.

> **Note:** This option is not displayed for content folders because the publishing process for a content folder always applies to all of the content folder's descendants.

Publish Working Items Only
(displayed only for some definition object types)

Publishes only the selected definition objects that currently have a status of **Working**. Selected objects that are in any other state are ignored.

Publish All Items
(displayed only for some definition object types)

Publishes all of the selected definition objects regardless of their status. The **Updated on** date will reset to the current date. Objects that are currently in a **Published** state have their **Date of publication** reset to the current date. However, if the **Date of publication** was manually overwritten, the date remains unchanged.

**Note:** If the **Date of publication** for a content record is blanked out, the publication date will reset to the current date when the content is published.

Publish Working Items, Regenerate Published Items
(displayed only for some definition object types)

Publishes all of the selected definition objects regardless of their status. The **Date of publication** remains unchanged for objects that are currently in a **Published** state. The **Updated on** date will reset to the current date.

Close this window after submitting for publish?
Prevents the publishing results from being displayed, which can reduce the number of clicks you must make when publishing. This option is saved as a preference until you change it again.

## Enabling workflow for content authoring

When defining a content folder, use the **Workflow Management** section to assign a content authority group and a content owner to a content folder. All content records created in that content folder will subsequently progress through the content authoring workflow that is defined by the permissions assigned to each member of the content authority group:

- Any content authority group member who has **Content Editor** permissions can be assigned as the content owner for the content folder or for individual content records within that folder. If for any reason this member becomes ineligible to be a content owner, the member who has **Default Owner** permissions is automatically assigned as the new content owner for the content folder or content records that were assigned to the now-ineligible content owner. Events that can make the current content owner ineligible include:
- The content owner is removed from the content authority group assigned to this content folder.
- The content owner's **Content Editor** permissions are revoked within the content authority group assigned to this content folder.
- A different content authority group is assigned to the content folder and the current owner is not a member with **Content Editor** permissions in the newly assigned content authority group.

  **Note:** For content folders that have a content authority group assigned to them, the **Owner of this content** value is not copied to new content records that are created inside the content folder. Instead, content records automatically have this value set to specify the first person who created the content record, which you can sub-sequently modify as needed.

  **Note:** A content record does not have a content owner automatically assigned if it was created by a person who is a member of the **SysAdmin** role, but who does not have **Content Editor** content authority group permissions in at least one content authority group.

- The Page Builder **Task List** for each member of the assigned content authority group lists the content records that they can take action upon.
- Content authority group members who have **Content Editor** permissions see content change requests and expiring content records in their **Task List**. They also see content records they have been defining and which are still in **Working** status.

- Content authority group members who have **Content Approver** permissions see content publishing requests and content deletion requests in their **Task List**.
  The assigned content owner for the content folder must be a member of the assigned content authority group. Unlike other content authority group members, the content owner receives email notification of expiring content records. For specific content records within the folder, you can specify a different owner other than the default owner assigned to the parent content folder. This different owner must be a member of the content authority group assigned to the content folder, and must also have **Content Editor** content authority group permissions.

#### Disabling workflow for content authoring

If a content folder does not have an assigned content authority group, then no workflow management takes place for the content records within that folder:

- Content change requests and expiring content records appear in the Page Builder **Task List** for every user in the system who has been assigned **Content Editor** permissions in any content authority group.
- Content publishing requests and content deletion requests appear in the task list for every user in the system who has been assigned **Content Approver** permissions in any content authority group.
- No email notifications of expiring content records are received.

### Creating custom layouts

The Bootstrap grid framework provides a very powerful grid system, which is supported in iMIS. If you choose to define a custom layout, here are some basic guidelines for working with the grids.

- Wrap each row of zones in a div with the class **row**.
- Each column class should end with a number from 1 to 12. These numbers should add up to 12 in each row, and represent the portion of the row that column will represent.

**Layout examples**

This layout contains one row with one column that takes up the full width of the page.



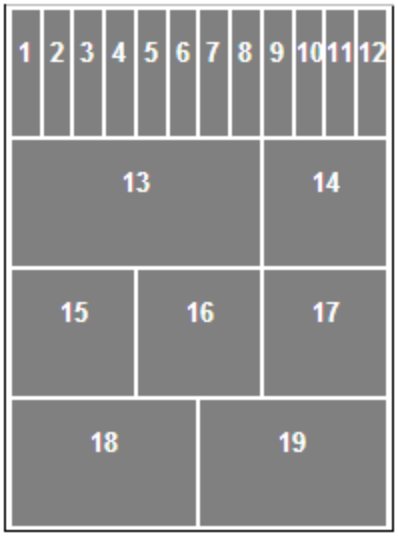

```
<div>
        <div class="row">
        <div class="col-sm-12"><p>1</p></div>
    </div>
</div>
```

For three zones in one row that will each take up one third of the row, use 3 ** **s each with the class **col-sm-4**.




```
<div>
    <div class="row">
        <div class="col-sm-4"><p>1</p></div>
        <div class="col-sm-4"><p>2</p></div>
        <div class="col-sm-4"><p>3</p></div>
    </div>
</div>
```

Here's an example of a more complex layout:




```
<div>
    <div class="row">
        <div class="col-sm-1"><p>1</p></div>
        <div class="col-sm-1"><p>2</p></div>
        <div class="col-sm-1"><p>3</p></div>
        <div class="col-sm-1"><p>4</p></div>
        <div class="col-sm-1"><p>5</p></div>
        <div class="col-sm-1"><p>6</p></div>
        <div class="col-sm-1"><p>7</p></div>
        <div class="col-sm-1"><p>8</p></div>
        <div class="col-sm-1"><p>9</p></div>
        <div class="col-sm-1"><p>10</p></div>
        <div class="col-sm-1"><p>11</p></div>
        <div class="col-sm-1"><p>12</p></div>
    </div>
    <div class="row">
        <div class="col-sm-8"><p>13</p></div>
        <div class="col-sm-4"><p>14</p></div>
    </div>
    <div class="row">
```

```
            <div class="col-sm-4"><p>15</p></div>
            <div class="col-sm-4"><p>16</p></div>
            <div class="col-sm-4"><p>17</p></div>
        </div>
        <div class="row">
            <div class="col-sm-6"><p>18</p></div>
            <div class="col-sm-6"><p>19</p></div>
        </div>
    </div>
```

**Defining Layouts**

Do the following to define content layouts:

1. Go to **RiSE > Page Builder >Manage layouts**.
2. Go to **New > Layout Definition** to create a new content layout.
3. Click **Edit** to change an existing content layout.
4. Select a content layout, then go to **Organize > Delete** to delete the content layout. You can define content layouts with the **Content Layout Editor** in one of two ways:

- Use the **Tool Box** to create simple layouts by adding rows and specifying how many columns are in each row.
- Click **Create Custom Layout** to code more complex layouts:
- We recommend using the Bootstrap grid library, which is automatically included in iMIS. Currently only the **col-sm** bootstrap grids are supported. We also provide and support YUI 2 grids, but we no longer recommend using the YUI grids.
- You can create your own grids using custom CSS or another grid framework. To do so you must include the CSS for your grids in your theme. Simply add the CSS file to your theme's folder in the **App_Themes** folder.
- Each layout must have a single ** ** that wraps the entire layout.
- Inside each ** ** element that functions as a content item zone, insert a single **<p>** element with a number that identifies the content item zone. For example, if your layout comprises four content item zones, the content of each **<p>** element could be the numbers **1**, **2**, **3**, and **4**, respectively. These **<p>** elements do not appear in the rendered content record if no content item has been added to a content item zone.

- Bootstrap grids are already shaded gray in the layout preview, but to shade any other element simply add the class **Shade** to the element.
  The following is an example of a custom layout. It has one column on the left of 25% width, and a right column of the remaining width, which then contains two rows, one with a full-width column and one with two 50%-width columns:

```
<div> <!-- this div is required for the layout to work -->
    <div class="row">
        <div class="col-sm-3"> <!-- this is the 25%-width left column -->
            <p>1</p> <!-- this paragraph indicates that this is the first zone in the layout -->
        </div>
        <div class="col-sm-9"> <!-- the 75%-width right column contains 3 zones -->
            <div class="row">
                <div class="col-sm-12"> <!-- this zone spans the full width of the right column (75%)
-->
                    <p>2</p>
                </div>
            </div>
            <div class="row">
                <div class="col-sm-6"> <!-- this zone spans the half width of the right column -->
                    <p>3</p>
                </div>
                <div class="col-sm-6"> <!-- this zone spans the half width of the right column -->
                    <p>4</p>
                </div>
            </div>
        </div>
    </div>
</div>
```

Troubleshooting

- You must have **Layout Editor** content authority group permissions in at least content authority group to which you belong.
- If you plan to code custom content layouts, you must be familiar with CSS layout techniques.
- The default content layouts shipped with iMIS are always overwritten during upgrades, so the best practice is to create new content layouts rather than modifying the default layouts. Take care to name your user-created content layouts uniquely to prevent iMIS from treating them as standard iMIS content layouts during an upgrade. An easy technique to ensure unique naming is to prefix the name with an acronym for your organization, such as **ORG One Over Two**.

  > **Note:** Membership in the **SysAdmin** security role effectively grants the full set of Document System permissions and the full set of content authority group permissions (you are effectively a member of a **MasterAdmin** content authority group too). However, to participate in web content authoring workflow, even members of the **SysAdmin** role must be explicitly-listed members of at least one content authority group.

Tip: Supported layout types
Although iMIS uses DIV-based CSS layout, you can use table layout or any combination of HTML elements that you prefer. The only absolute requirements are:

- You must insert a single **<p>** element with only a single number inside the element where you want each content item zone to be located in your layout. Use unique numbers for each content item zone, starting with **1**. You must also have at least one of these `<p>[number]</p>` strings in your custom content layout. iMIS content management looks for these strings to determine how many content item zones are in the layout, and where they are located. Any other content inside of a **<p>** element other than a single number is not considered as being a content item zone, and the content is copied directly to the rendered output of the content record.
- The HTML elements that you use must be valid in the context of a **<body><form>** container. For example, you cannot use a **<head>** element in your custom content layout.

You can also add ASPX code and other markup to add standard elements to a layout, such as always including a search box or a logon control on a given content layout. These elements will be available in the published output of a content record, but they will not be visible when previewing your custom content layout in the layout editor.

## Managing images

To help you to organize your site images where they cannot be overwritten during upgrades, iMIS uses one system-defined path for all of the image files that you upload. This setting is honored by the **Image Manager** (go to **RiSE > Page Builder > Manage images**) and by all content items that reference uploaded images, such as **Content HTML**, **Content Block**, and **Contact Profile Picture**.

For clarity, content items that manage images specific to a feature organize those files into subfolders below your default. Any filenames ending with **_T** are thumbnails that iMIS generates for you.

- Event images are stored in **/Events**.
- Product images are stored in **/Products**.
- Contact (individual and organization) images are stored in **/Profile**.

**Note:** Theme-related images are managed within appropriate theme folders.

### Changing the upload folder for images

To change the upload folder for your images, go to **Settings > RiSE > Page builder configuration**, and change the **CM.ImagePath** variable. You can set this in Page Builder configuration.

For best results, choose one of the following locations for your uploaded images folder:

- On your web root: **...\ASI\iMIS\Net**
- In the **SharedContent** folder: **...\ASI\iMIS\Net\SharedContent**

**Note:** The path to this directory must be the same on all servers that host your iMIS sites.

### Uploading images

Before you can use image files in your content items, you must upload them to the server. You can do this while configuring a **Content Html** content item, or you can do this using **Image Manager**, which makes it easy to upload and organize a set of files.

- **Using the ContentHtml editor** – While defining a content record, add a **Content Html** content item and configure it to display the HTML editor:

a. In the editor's toolbar, click the **Image Manager** button.
b. (**Browse Files** tab) Open the folder from which you want to upload a new image.
c. (**Upload Image** tab) Click **Browse**.
d. Select the local file that you want to upload.
e. Click **OK**.
f. Click **Upload**.

- **Note:** To reuse an image hosted on an external server, use the **Content Html** content item and insert a standard HTML **<IMG>** tag to that image.

- **Using Image Manager** – In Page Builder, select **Manage images**.

a. Go to **RiSE > Page Builder > Manage images**.
b. Open the folder in which you want to upload a new image, or click the **New Folder** icon to create a new folder.
c. Click the **Upload** icon and browse to the file on your computer that you want to upload.
d. Click **OK**.
e. Click the **Upload** link at the right of the **Upload** field. To cancel the upload, click the **Upload** icon in the toolbar.

Both the HTML editor and the **Image Manager** have a built-in **Image Editor** that can perform some basic edits to images that you have already uploaded.

**Note:** Do not use **Image Editor** with transparent images. The transparent background becomes black. To edit transparent images, right-click on the image and select **Save Image As** to save a copy locally. Edit the image with your preferred program, then upload the image to iMIS again, overwriting the original copy.

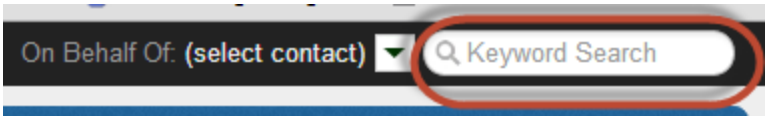
**Troubleshooting**

- To upload images, you must have **Content Upload** content authority group permissions.
- To upload from a network location, first map that folder to a drive letter on your work-station.
- Theme images (used by **Big Button Panel** content item) do not auto-sync between serv-ers.

## Tagging

### Searching for Tagged Items

You can search for content folders or content records with Tags.




Do the following to configure a content folder and content record to be searchable by Tags:

1. Go to **RiSE > Page Builder > Manage content**. Do one of the following:
   - Create a content folder.
   - Select a non-system content folder, and then click Edit.
2. Click **select** for the **Default website (for search)** field, and select a website. This enables indexing of the website for the search. You must select a default website (for search) even if you do not apply tags at the content folder level. If you do not, content records with tags applied in that content folder are not returned during searches.
3. Click **select** for the **Include content in Searches for these additional Websites** field. This allows searches for items on the default website, for example, the Staff site, to be returned when performing the search from another website, for example, the Member site.
4. (Optional) Click **Always display content in default website**. If this option is selected, the end-user will be redirected to the default website to view the tagged content if they per-form the search in another website.
5. Click the **Current Tags** tab, and then click **Modify** to apply tags.
6. Click **Save**, and then click **Cancel**.
7. Click **Publish**.

8. Select **Publish Working Items, Regenerate Published Items**. The content folder and all content records contained therein will be searchable to any applied Tag Name.
   *See also*

- Defining tags
- Defining tagged list formats

### Defining tags

In the Staff site, go to **RiSE > Tagging > Define tags**:

Do one of the following:

- Click **New** to create a new tag. Enter a **Tag Name**. Define the tag's **Properties**, **Related Tags**, and **Access Settings**.
- Select an existing tag to edit the tag's properties. Define the tag's **Properties**, **Related Tags**, and **Access Settings**, if necessary.
- Select an existing tag, and then click **Delete** to delete the tag.

When you create a child tag, it automatically copies the properties of the parent tag. Subsequent changes to the parent tag's properties do not affect the child tag.

You can reorganize the tag hierarchy by dragging and dropping tags into new positions. Drop tag A onto tag B to make A subordinate to B (A becomes a child of B, and B is the parent of A).

#### Troubleshooting

- You must be a member of at least one content authority group.
- Although no specific Document System permissions are required to define tags, the people who perform web content authoring must have **Select** Document System permissions on a tag to be able to assign that tag to a content record or content folder.
- You must plan your tag hierarchy in a manner that accounts for the effect of implied relationships between parent and child tags in the hierarchy. A tag's position in the tag hierarchy creates an underlying relationship that is not specifically displayed in the **Related Tags** section: Parent tags are implicitly related to their children tags with a **more broadly defines** relationship, and children tags are implicitly related to their parent tag with a **further defines** relationship. This means that:

- The pre-filtered result set of a basic or advanced search includes all published content records that are tagged with any descendant of the tag that is matched by the search keywords.
- The pre-filtered result set of an advanced search includes all published content records that are tagged with any descendant of a tag that is specified in the configuration of the **AdvancedSearch** content item if the user selects that tag at runtime on the rendered page that contains the advanced search form.
- The pre-filtered result set of a rendered **ContentTaggedList** content item also includes published content records that are tagged with any descendent of a tag that is specified in the configuration of the **ContentTaggedList**.
- The content of the **Items by Tag Report** (in **Continuum > Content reports**) does not list published content records that are tagged with any descendant of each tag in the report.

> **Note:** Membership in the **SysAdmin** security role effectively grants the full set of Document System permissions and the full set of content authority group permissions (you are effectively a member of a **MasterAdmin** content authority group too). However, to participate in web content authoring workflow, even members of the **SysAdmin** role must be an explicitly-listed member of at least one content authority group.

**Configuration options: tags**

These fields control the properties of tags that are defined in the system.

In the Staff site, go to **RiSE > Tagging > Define tags**.

Do one of the following:

- Select a tag in the tag hierarchy.
- Click **New**.

Tips

- A tag's position in the tag hierarchy creates an underlying relationship that is not specifically displayed in the **Related Tags** section: Parent tags are implicitly related to their children tags with a **more broadly defines** relationship, and children tags are implicitly related to their parent tag with a **further defines** relationship. This means that:

- The pre-filtered result set of a basic or advanced search includes all published content records that are tagged with any descendant of the tag that is matched by the search keywords.
- The pre-filtered result set of an advanced search includes all published content records that are tagged with any descendant of a tag that is specified in the configuration of the **AdvancedSearch** content item if the user selects that tag at runtime on the rendered page that contains the advanced search form.
- The pre-filtered result set of a rendered **ContentTaggedList** content item also includes published content records that are tagged with any descendent of a tag that is specified in the configuration of the **ContentTaggedList**.
- The content of the **Items by Tag Report** (in **Continuum > Content reports**) does not list published content records that are tagged with any descendant of each tag in the report.

Tag Name
Specifies the tag name, which can comprise multiple words with spaces and even some special punctuation characters.

Tag Description
Specifies a description of the tag that is oriented to the people who perform web content authoring and website management. This text is not displayed anywhere except when editing the definition for a tag.

Aliases
Specifies a comma-delimited list of other terms that are synonymous with the **Tag Name**. If these alias terms are entered by the user in a basic or advanced search panel, all content tagged with the associated **Tag Name** will be listed in the search results, but with a lower relevancy than if the actual **Tag Name** had been used in a search.

Access Settings
Specifies the Document System permissions granted for this definition object to iMIS security roles, security groups, specific iMIS users, iMIS member types, or to all Full and Casual users based on their assigned authorization levels.

- **Apply changes to all descendants** – Changes to this section, when saved, flow automatically to all descendant definition objects. When cleared, changes to this section

apply only to the current definition object. This checkbox usually appears only on Document System folder objects.

- **Use a preconfigured security set** – Specifies a preconfigured security configuration to use for this definition object, which can be much simpler than using the **Make this available to** option to specify the permissions for definition objects. The specific permissions in the preconfigured security configuration are displayed (read-only) in the **Make this available to** area.
  If you select a preconfigured security configuration and then switch to the **Make this available to** option, the permissions granted by the preconfigured security configuration are copied. This enables you to use a preconfigured security configuration as a starting point for defining custom permissions.

- **Make this available to** – Lists the roles, groups, users, member types, or authorization levels that have been enabled to define or view rendered output from this object. This option enables you to specify custom permissions for the definition object if none of the preconfigured security configurations meets your needs. The **SysAdmin**, **Content Administrator**, and **Everyone** roles are default system-defined security roles that are assigned to every definition object. The **SysAdmin** role is assigned in the definition of an iMIS user record, but the **Content Administrator** role is automatically assigned to every iMIS user who is a member of a content authority group (CAG) that is designated as a **Master Admin** content authority group.
  The permissions that can be assigned to each entry in the list are:

- **Full Control** – Enables all of the following permissions.
- **Read** – Enables users to see this object both in definition windows and as rendered output in websites, but they cannot change the object's definition.
- **Add** – Enables users to create new objects, or to paste or import an object into the Document System.
- **Edit** – Enables users to edit this object's definition, but not to delete the object.
- **Delete** – Enables users to delete this object.
- **Select** – Enables users to assign a tag to content folders and content records.

Related Tags

- **Automatically create reciprocal relationships** – (Displayed when you click **Add** in the **Related Tags** section of the tag definition)
  Creates an appropriate reciprocal version of the relationship type specified for this tag in the target related tag. For example, if you specify a **more broadly defines** relationship in the **Choose a relationship type** drop-down list for this tag, the target tag will have an explicit **further defines relationship** created that points back to this tag.

  If this checkbox is subsequently cleared on either side of a reciprocal relationship, the corresponding checkbox will automatically be cleared on the other side too.

- **Choose a relationship type** – (Displayed when you click **Add** in the **Related Tags** section of the tag definition)
  Specifies an explicit type of relationship from this tag to another tag.

  Explicit tag relationships currently affect only search results. If these related tags are entered by the user in a basic or advanced search panel, all content tagged with the associated **Tag Name** will be listed in the search results, but with a lower relevancy than if the actual **Tag Name** had been used in a search.

  Explicit tag relationships currently have no effect on the dynamically rendered list of content records from a **ContentTaggedList** content item, nor in the content of the **Items by Tag Report** (in **Continuum > Content Reports**).

  Explicit tag relationships are not transitive. If A is related to B, and B is related to C, there is no relationship between A and C. Neither are these relationships implicitly reciprocal. You must manually create the reciprocal relationship or select the **Automatically create reciprocal relationships** checkbox when defining an explicit relationship to other tags.

> **Note:** The specific type of relationship has no particular functionality. Future releases might make use of specific relationship types, but currently all types of explicit tag relationships yield the same search results as a term specified in the **Tag Alias List** field.

## Defining tagged list formats

Do the following to define tagged list formats.

In the Staff site, go to **RiSE > Tagging > Define tagged list formats**.

Do one of the following:

- Select **New > Tagged List Format** to create a new tagged list format.
- Select an existing tagged list format. Click **Edit** to modify that list format.
- Select an existing tagged list format. Select **Organize > Delete** to delete that tagged list format.

  Verify a tagged list format's behavior by using it in a **ContentTaggedList** content item, then previewing a content record that contains the content item.

  Troubleshooting
- The default tagged list formats shipped with iMIS are always overwritten during upgrades, so the best practice is to create new tagged list formats rather than modifying the default ones. Take care to name your user-created tagged list formats uniquely to prevent iMIS from treating them as standard iMIS tagged list formats during an upgrade. An easy technique to ensure unique naming is to prefix the name with an acronym for your organization, such as "**ORG**SimpleWithHTML".

  **Concept: tags and tagged list formats**

  Tags are a special type of keyword that you can associate with content records to searches that are more powerful and the automatic population of content based on tags. All descendants of a content folder inherit the tags defined for the folder. You can tell which tags are being inherited from a content folder higher in the content folder hierarchy by viewing the **Current Tags** section of a content folder's or content record's definition.
- **AdvancedSearch** content items specify various tags that your iMIS content management website users can select to narrow their search to a smaller set of tagged content records.
- **ContentTaggedList** content items specify various tags that are used to generate a real-time list of links to tagged content records when the content record containing the **ContentTaggedList** is viewed.

  Tagged list formats are used by **ContentTaggedList** content items to format the rendered display of the list of links. The chosen tagged list format is applied as a display mask to each item in the list. For example, one tagged list format might display only a simple list of

links, while another tagged list format might display a link followed by an HTML fragment from the target content record.

Unlike some other content authoring systems and web applications, you cannot create ad hoc tags while defining content records. Instead, you must choose from a list of pre-defined tags that are usually defined by the people who perform website management. This restriction ensures that your content is tagged with a centrally designed taxonomy, which provides more consistent and predictable search results from **ContentTaggedList** content items.

Tags are defined in a hierarchical structure, with every parent tag having an implicit **more broadly defines** relationship to its children tags, and every child tag having an **implicit further defines** relationship to its parent tag. In general, this means that if you use a parent tag in an **AdvancedSearch** or **ContentTaggedList** content item, all descendant tags are automatically included as well.

**Configuration options: tagged list formats**

These fields control the properties of tagged list formats that are defined in the system.

In the Staff site, go to **RiSE > Tagging > Define tagged list formats**.

Do one of the following:

- Select **New > Tagged List Format**.
- Select an existing tagged list format, and then click **Edit**.

Tips

- Tagged list formats are used by **ContentTaggedList** content items to format the rendered display of the content item. You specify the tagged list format to use in the **List Format** field of the **ContentTaggedList** configuration.
- The default tagged list formats shipped with iMIS are always overwritten during upgrades, so the best practice is to create new tagged list formats rather than modifying the default ones. Take care to name your user-created tagged list formats uniquely to prevent iMIS from treating them as standard iMIS tagged list formats during an upgrade. An easy technique to ensure unique naming is to prefix the name with an acronym for your organization, such as **ORG**SimpleWithHTML.

- The format you define here is applied as a display mask to a single item in a **ContentTaggedList** content item. This format is repeated once for each item content record in the list rendered from the content item. The basic elements of a tagged list format are:
  - One or more content record property labels to explain a following content record property value.
  - One or more content record property values.
  - A single link to the content record itself.
  - HTML fragments.

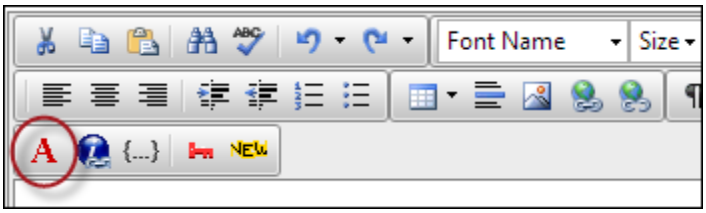
  While none of these elements is actually required by the system, at a minimum you should at least insert the link to the content record itself.
- The content record property values are all read-only values.
- The tagged list format editor is essentially the HTML editor used for Content Html content items, with some iMIS-specific toolbar buttons at the right of the bottom toolbar, and a list of embeddable content record properties at the right of the editor.
  If you find some features of the HTML editor confusing, you can download the RadEditor user manual from the Telerik Documentation site.

> **Note:** Some features described in this external document have not been enabled for use when defining Content Html content items or tagged list formats.

**Warning!**

If you use the HTML editor's built-in **Image Editor** to modify an image that has a transparent background, the transparent background will be replaced by solid black pixels. If you need to edit images that have a transparent background, you should save a copy of the image to your local computer and use your preferred image editing program to modify it. Then upload the new version to iMIS again, overwriting the old version if desired. The easiest way to save a copy of the image to your local computer is to right-click the image shown the **Preview** area of the **Image Editor**, and choose **Save Picture As**.

iMIS Label Manager (toolbar button - red "A")



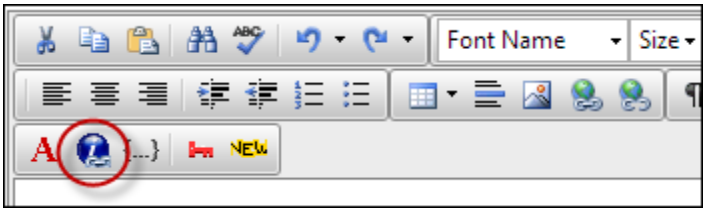

Edits a content record property value that has been inserted in the editing area in the following possible ways:

- Changes an existing content record property value in the editing area to a different property. You must place your cursor somewhere inside the existing property value before clicking this button.
- Enables you to define a display mask for date-oriented and numeric property values.

> **Note:** While you can use this toolbar button to insert a new property value, it's much easier to insert new values by clicking the red **A** icons in the **Content - Properties** list.

- **Display Value** – Has no effect.
- **Property** – Specifies the property value in which the editing cursor is positioned. If you select a different property value from the list, it will replace the property value in which the editing cursor is positioned.
- **Display Format** – Specifies a display mask for date-oriented and numeric property values. To view a list of the syntax you can use for the display mask, click **View complete list of Date/Time and Number formats**.

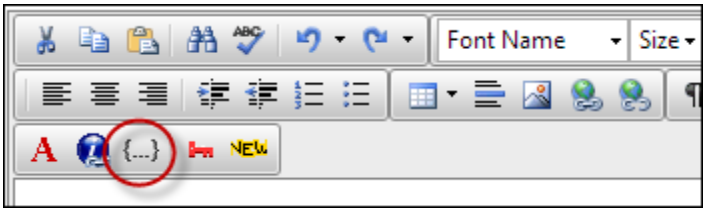
iMIS Hyperlink Manager (toolbar button - globe and chain)




Creates a link to the content record itself, enabling you to define the anchor text for the link in various ways.

- **Dynamically based on Property** – Specifies anchor text that is different for every content record in the rendered **ContentTaggedList** content item. The anchor text will be the selected content record property value.
- **Static text** – Specifies anchor text that will be the same for every content record in the rendered **ContentTaggedList** content item.
- **Display Format** – Specifies a display mask for date-oriented and numeric property values if you specify the anchor text to be **Dynamically based on Property**. To view a list of the syntax you can use for the display mask, click **View complete list of Date/Time and Number formats**.

iMIS Conditional Display Manager (toolbar button - {...})

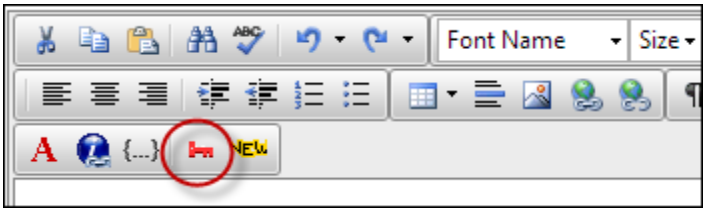



Specifies a single conditional display parameter for any element of the tagged list format (property label, property value, link, or HTML fragment). You must select the entire element before clicking this button. When you insert the conditional parameter, the element is surrounded by braces **{ }** to indicate that it is a conditional display block.

To simulate ELSE arguments for the conditional display of an element, you can copy and paste the element inside a conditional display block to a position immediately following the existing display block, then select the copied element and click this button to create a new conditional display block with a different parameter.

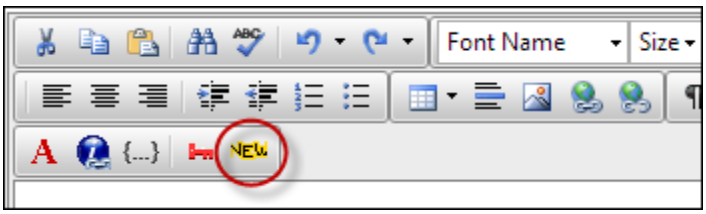
**Note:** The **iMIS Conditional Display Manager** is a generic conditional display control shared among several iMIS features. Therefore, you should be careful to choose values that make sense in the context of conditional display of an element in a tagged list format. As a rule, you should use the default values for **Data type**, **Comparison type**, and **Source**. The only value you should change is for the **Value** drop-down list, to specify the content record property value that you want to ensure is not empty before displaying this element.

Insert 'Members Only' Marker (toolbar button - red key)




Inserts a graphic icon that is conditionally displayed for an item in a rendered **ContentTaggedList** content item if the **Content is restricted to members** checkbox is selected in the **Properties** section of the corresponding content record.

Insert 'New' Marker (toolbar button - NEW)




Inserts a graphic icon that is conditionally displayed for an item in a rendered **ContentTaggedList** content item if the **Mark as important until** field in the **Properties** section of the corresponding content record contains a value and that date has not yet passed.

Content - Properties

Lists the content record properties that can be used as elements in the tagged list format. The list of available properties includes all iMIS content management user-defined fields (UDFs) that are defined in the system.

- **P** icon – Inserts a pre-defined label for the corresponding content record property. You can modify this label after it has been inserted into the editing area.
- **A** icon – Inserts a string variable, delimited by brackets **[ ]**, that will display the actual value of the content record property for each item in the rendered **ContentTaggedList** content item. You should not directly edit this string, but you can safely delete it or change it by putting the cursor inside the string and clicking the **iMIS Label Manager** button on the toolbar.

> **Note:** The string variable created by the **A** icon is not a link. To make the rendered replacement text of a string variable be a link (such as making the **Title** property a link to the actual content record), you must use the **iMIS Hyperlink Manager**.

> **Note:** If you insert an **HTML** property value, the rendered **ContentTaggedList** content item displays the full content of all Content Html content items in the content record, concatenated together with no visible divisions between them.

## Maintenance

Website maintenance comprises the ongoing tasks that you periodically perform to help you troubleshoot your iMIS content management websites and manage the publishing queue for each publishing server.

*See also*

- Defining publishing servers
- Defining user-defined fields
- Configuration options: content types
- Defining content authority groups

## Defining publishing servers

In the Staff site, go to **RiSE > Maintenance > Publishing servers**.

Select an existing publishing server to change its properties, or you can **add** or **delete** a publishing server.

> **Note:** After deleting a publishing server, you must click **Save**. If you do not click **Save**, your changes will not be implemented.

Tips

- All references to "the publishing service" refer to a specific instance of **AsiScheduler**. You can install multiple instances of this service to any web server on which iMIS content management navigation items and content should be published, but each instance must have a unique single-letter identifier.

- If you need to create multiple publishing servers, you must manually create a new publishing server for each IIS application and IIS website.

  > **Note:** You must associate no more than one publishing server with each publishing service. If your environment has more than one IIS application or IIS website that is hosting iMIS content management websites on a given server, you must install one publishing service for each such IIS application and IIS website, and you must define a single corresponding publishing server for each publishing service. For more information, refer to Installing CM on web servers.

Verifying/changing a publishing service code

Do the following to verify or change the **Publishing Server Code** assigned to an installed publishing service:

1. Open the Asi.Scheduler web.config file in a text editor on the appserver or external web server. Default location is **c:\AsiPlatform\Asi.Scheduler_[*your instance*]**.
2. In the **<SystemParams>** declaration, verify or change the value of the **PublishServerCode** key. The value must be a single uppercase letter from A to Z, and must be unique among all publishing services used by a given instance (database) of iMIS.

Defining additional publishing servers manually

The iMIS installer automatically defines a corresponding publishing server for the default instance of the publishing service installed by iMIS. However, in some iMIS content management installation scenarios, you must manually install one or more additional instances of the publishing service at a command line.

1. Manually create a single corresponding publishing server for every publishing service that you have manually installed.
2. When you add a new publishing server, review the **Publish on Servers** property for all existing content folders to specify whether the rendered files from content records in those folders should be made available to the iMIS sites that are associated with these manually-created publishing servers.

Defining sets of publishing service codes

When you install iMIS content management on a web server (or install an additional publishing service for each manually created IIS application or IIS website), you are prompted to specify a **Publishing Server Code** to uniquely identify the publishing service that is created during installation (it always defaults to the value **A**). When you define a publishing server in the iMIS content management environment to control the behavior of a specific publishing service, you use this code to link the publishing service to its corresponding publishing server.

The **Publishing Server Code** must be unique among all publishing services used by a given instance of iMIS. For example, your production iMIS server might use the code A to identify its instance of the publishing service, and you might also have three other external web servers located in different geographic locations whose **Publishing Server Codes** might be B, C, and D, respectively.

**Note:** You can duplicate codes across test and production instances, since they're still unique within their specific databases.

**Warning!**

The publishing server associated with the base iMIS installation must always be defined as the only **Default** (the one **PublishServerRef** row set with the **IsDefault** flag). Unless this one instance is set as the default, the Multi-Instance Utility will not work as expected.

Troubleshooting

- You must be a member of at least one **Master Admin** content authority group (CAG).
- You must already have installed iMIS content management on one or more web servers and noted the **Publish Server Code** that you specified to use for the iMIS publishing service that was installed during that process.

**Note:** You must associate no more than one publishing server with each publishing service. If your environment has more than one IIS application or IIS website that is hosting iMIS sites on a given server, you must install one publishing service for

each such IIS application and IIS website, and you must define a single corresponding publishing server for each publishing service. See Installing iMIS content management on web servers.

**Note:** Membership in the **SysAdmin** security role effectively grants the full set of Document System permissions and the full set of CAG permissions (you are effectively a member of a **MasterAdmin** CAG as well). However, to participate in web content authoring workflow, even members of the **SysAdmin** role must be an explicitly-listed member of at least one CAG.

- **Multiple publishing services** – Do the following to update the publishing servers dashboard when multiple publishing services are installed:

a. Publish some content.
b. Go to **RiSE > Maintenance > Publishing servers**. Note that one of the services will show **in progress** while the other service shows **done**. The content is published to both sites, but the dashboard is not updated correctly.
c. Stop the ASIScheduler pool on the system that shows that the service is still in progress.
d. Restart the ASIScheduler pool. The dashboard is updated.

- **Single instance of a publishing service** – Do the following if a single instance of the publishing service does not start or does not complete:

a. Reenable **asiScheduler**. Go to **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
b. Go to **Sites > Default Web Site**.
c. Select the **Asi.Scheduler_ [*your instance*]** application for the instance you installed, then right-click and select **Manage Application > Browse**. An ASP.Net page will open.
d. Close the browser. The **Asi.Scheduler_ [*your instance*]** is now enabled.

Managing the priority of pending publication requests

1. In the Staff site, go to **RiSE > Maintenance > Publishing servers**.
2. If the **Number of Pending Requests** for a publishing server is a non-zero value, click **detail** to view the current publishing requests queue.
3. Change a request's priority in the queue by using the **Priority** drop-down list.
4. Click **Save** to process these changes.

Viewing iMIS content management reports

1. In the Staff site, go to **Continuum > Content reports**.
2. Select a report.
3. Click **Run**.
4. If a query parameters window appears, specify the additional required parameters that you are asked for, and then click **Run**.

Creating new iMIS content management reports

All iMIS content management reports are standard Document System report definition objects that are based on Intelligent Query Architect (IQA) queries. Some default reports are included with iMIS content management, and you can define additional reports using the techniques described in Reporting Essentials.

### Concept: publishing servers versus publishing services

The publishing service is used by Site Builder when publishing new websites and when adding pages to an already existing website:

- iMIS uses publishing services to render and place files into the local file system of web servers that have been prepared to host iMIS content management websites. Currently, these files are:
- Rendered output of a content record (browser-readable **.aspx** files)
- Downloadable file attachments that are defined in a **ContentFile** content item
- iMIS does not push files to a publishing service when an iMIS user performs an action that publishes a content record. Instead, every publishing service regularly polls the iMIS database to check whether any publishing requests have been queued up for the corresponding publishing server. For more information, refer to Concept: publishing CM content.

  An iMIS content management publishing server is an added control layer to a specific instance of an iMIS publishing service that provides important configuration information and enables sophisticated publishing control for content records developed with the Page Builder tool.

- Through the publishing server's assignment to the **Publish on Servers** field in content folders, the publishing service can determine which content records it should render when it finds publishing requests during each polling interval.

- Through the **Local Protected Path** and **Local Publish Path** fields in the publishing server definition, the publishing service can determine where to place specific types of files in the file system of web servers that have been prepared to host iMIS content management websites.
  When you install iMIS on a server host, the installer automatically defines a corresponding publishing service/publishing server pair:

- A single default instance of the publishing service is placed on the server host, identified by a unique code string that you specify during installation.
- Connection information to the iMIS database is automatically defined by the installer.
- A corresponding publishing server is defined in the iMIS database and given a default configuration. Go to **Maintenance > Publishing servers** to change the default configuration.

### Configuration options: publishing servers

These fields control the properties of publishing servers that are defined in the system.

Detail
(displayed only in the main list of defined publishing servers)

Lists the currently pending and recently completed publishing requests for the associated publishing server. You can cancel pending requests or change their priority in the publishing queue. Changes to pending requests are processed when you click **Save**.

Error log
(displayed only in the main list of defined publishing servers)

Lists the errors reported by the publishing server. You can remove errors from the list by selecting the corresponding checkbox and clicking **Delete Selected**.

Description
Specifies the name of the publishing server that is displayed in the list of publishing servers in your iMIS content management environment.

Publish Server Code
Specifies the unique single-letter identifier of the publishing service that this publishing server controls. This must be a single uppercase letter from A-Z, which means that you

can define at most 26 different iMIS publishing services in your iMIS content management environment (one publishing service per IIS application or IIS website that hosts iMIS content management websites, with one corresponding publishing server per publishing service defined in iMIS content management to control each publishing service).

Local Publish Path
Specifies the root directory where the rendered **.aspx** files from published content records should be written on the server where the publishing service is running. This directory must be within the physical path of the IIS application or IIS website that hosts iMIS content management websites.

By default, this path is **C:\Program Files\ASI\iMIS\Net**.

For 64-bit systems, the path must be changed to reflect the installation path default of **C:\Program Files (x86)\ASI\iMIS\Net**.

The uploaded files are written to system-created directories below the one that you specify here. Each directory corresponds to a content folder in the iMIS content management content folder hierarchy. Uploaded files are placed into the directory that corresponds to the parent content folder of the content record in which the **ContentFile** content item is defined.

Local Protected Path
Specifies the root directory where the uploaded files defined in a **ContentFile** content item (for example, Word, Excel, PowerPoint, PDF, and so forth) should be written on the server where the publishing service is running. For security reasons, this directory must not be in the IIS **Physical Path** of any website, virtual directory, or application in IIS. In other words, the files in this directory must not be able to be linked to directly by web browsers. Instead, they are served to the client only after security permissions are verified.

By default, this path is **C:\Program Files\ASI\iMIS\indexServiceProtected**.

The uploaded files are written to system-created directories below the one that you specify here. Each directory corresponds to a content folder in the iMIS content management

content folder hierarchy. Uploaded files are placed into the directory that corresponds to the parent content folder of the content record in which the **ContentFile** content item is defined.

IP Address
Specifies the IP address of the computer that is running the publishing service for this publishing server. This is usually the IP address of the iMIS application server. You can run this service on a different computer than the iMIS application server, but there is no real benefit in doing so because the publishing service is not resource-intensive.

Alternate Server IP Address
Specifies an additional IP address of the computer that is running the publishing service for this publishing server, used for web servers that associate themselves with more than one IP address. You cannot specify a value for this field unless you have already specified the **Server IP Address**.

Frequency
Specifies the interval, in seconds, at which the publishing server should check for new **PublishPending** requests.

Publishing Speed
Specifies the number of **PublishPending** requests that are attempted at the same time.

IIS Security
Specifies the authentication credentials for a Windows account that has permission to create, update, and delete content in the **Local Publish Path** that is specified in the **Publishing Server Properties** area.

These fields are required only when IIS security is used to protect IIS website content.

- **IIS Security User Name** – Specifies a windows user name.
- **IIS Security Password** – Specifies the password associated with the windows user name.
- **IIS Security Domain** – Specifies the Windows domain name if the Windows account being used is a domain account instead of a local account.

## Defining user-defined fields

Do the following to define user-defined fields (UDFs).

In the Staff site, go to **RiSE > Maintenance > User Defined Fields**:

1. Select an existing iMIS content management user-defined field to change its properties. You can also **add** or **delete** a user-defined field.
2. Verify an iMIS content management user-defined field's appearance and behavior. Edit a content record. Review the **Properties** tab, between the **Mark as important until** field and the **Help URL** field.

> **Note:** When you add, change, or delete an iMIS content management user-defined field, existing content records and their rendered **.aspx** files will not reflect the changes until you edit the content record, specify the desired value for the user-defined field, then re-publish the content record.

**Concept: user-defined fields (UDFs)**

User-defined fields (UDFs) in iMIS content management are created differently, and serve a very different purpose, than user-defined fields in iMIS contact records:

- The UDFs found in iMIS contact records enable you to collect custom information about a contact. These contact UDFs are not available for use in iMIS content management.
- The UDFs found in iMIS content management are primarily useful as a way to capture additional properties of the content in content records, and to provide a controlled list of search criteria for use in iMIS content management only. These iMIS content management UDFs can be used in three ways:
  - As a value added to the keywords <META> element in the rendered page for the content record, which enables searches performed through the iMIS content management search engine (but not by typical external web-based search engines) to locate the content record by searching for this value. This behavior is controlled by the **Use in Search?** property of an iMIS content management UDF.
  - As a search filter in **AdvancedSearch** content items, applied to the initial result set based on the tags and keywords specified in the search.
  - As both filtering criteria and sorting criteria in **ContentTaggedList** content items. A date-oriented UDF can be used to filter the initial result set based on the chosen tags, and a different UDF of any type can be used to sort the the final result set.

Every UDF defined in iMIS content management is added as a new custom property to every content record, and can be displayed in a wide variety of formats, from a simple text field to a drop-down list, to a calendar control, to a set of radio buttons, and so on. In the advanced search panel rendered from an **AdvancedSearch** content item, the user-defined field appears exactly the same way that it does in content records. This enables iMIS content management website users to specify UDF values for advanced searches in the same manner that the UDF values are chosen when authoring content. For example, a date-oriented UDF will have a calendar control that makes it easy to select a date.

**Configuration options: User defined fields**

Use In Search?

The value specified in the corresponding UDF in a content record is added to the keywords <META> element in the rendered page for the content record, which enables searches performed through the iMIS content management search engine (but not by typical external web-based search engines) to locate the content record by searching for this value. When cleared, the value specified in the corresponding UDF is not added to the keywords <META> element in rendered pages.

Because this value is added to the keywords <META> element, the relevancy weighting of search results is affected by the **SE.SearchKeywordHint** field **Set up content management > Search configuration**.

Sort Order?

Specifies the order in which this UDF appears in the total set of UDFs in the **Properties** section of content records. The value you specify must be in the range 1 to n, where n is the total number of iMIS content management UDFs defined in the system.

If you delete an iMIS content management UDF or change this value for any iMIS content management UDF, the system automatically recalculates this value on all other UDFs to ensure that this value in all iMIS content management UDFs stays within the range 1 to n. Therefore, it's generally a good idea to double-check this value on all iMIS content management UDFs when you make these types of changes, because the automatic recalculation might change the original order.

Is Required?

All content records that are defined after this UDF definition is saved will require a non-blank value to be specified in the corresponding UDF in the content record. When cleared, the corresponding UDF in content records will be an optional field.

Label

Specifies the label for this UDF that will appear in content records.

Display Width

Specifies the unit measurement, in pixels, of the width allotted to variable-entry Display Controls such as **Text Field** or **Text Area**.

Display Height

Specifies the unit measurement, in pixels, of the height allotted to variable-entry Display Controls such as **Text Field** or **Text Area**.

Allow Multiple Selection?

Specifies that items in a list-based **Display Control** can be multi-selected. When cleared, only one list item can be selected at a time. This checkbox does not become active until after you select a list-based **Display Control** and click **Save**.

Display Orientation

Specifies the orientation of certain multiple-object **Display Control** types, such as **Check Box(es)** or **Radio Buttons**.

- Horizontal – Arranges the display controls in left-to-right order.
- Vertical – Arranges the display controls in a top-to-bottom order.

Display Columns

Specifies how many columns a multiple-object **Display Control** such as **Check Box(es)** or **Radio Buttons** should span if the selected **Display Orientation** is **Horizontal**. For example, if the **Values** section creates four checkboxes and the **Display Columns** value is 2, the UDF will be rendered with two rows of checkboxes, with two in each row.

References Object

Specifies the name of the iMIS business object that has the source properties used to populate the values for list-oriented **Display Control** types, such as **Drop Down List** or **Radio Buttons**. Use this field only in conjunction with the **Value List** option in the **Values Come From** area.

Default Value
Specifies a value that should be pre-filled or pre-selected in this UDF when a new content record is created.

Values Come From
Specifies the source of the values for the UDF. The available choices depend on the type of **Display Control**.

- **Freeform data entry** – Requires users to enter the value manually, such as for a **Text Field** or **Text Area**.
- **Finder** – Requires users to interact with a finder dialog before the values are populated for the UDF. This is automatically selected when the **Display Control** is a **Finder**. No other **Values Come From** option is available in this case.
- **Query Object** – Produces a discrete list of possible values for the UDF in a content record, based on the results of the IQA query that you select here. This choice is available only if the **Display Control** allows for list-oriented data entry, such as **Drop Down List** or **Radio Buttons**.
  - **Data Value** – Specifies which property/field of the **Query Object** is stored when you make a selection.
  - **Display Value** – Specifies which property/field of the **Query Object** appears as the list-oriented labels in the user-defined field in content records.
- **Value List** – Produces a discrete list of possible values based on the contents of the **Designer** tab of the business object specified in **References Object**. This choice is available only if the **Display Control** allows for list-oriented data entry, such as **Drop Down List** or **Radio Buttons**.

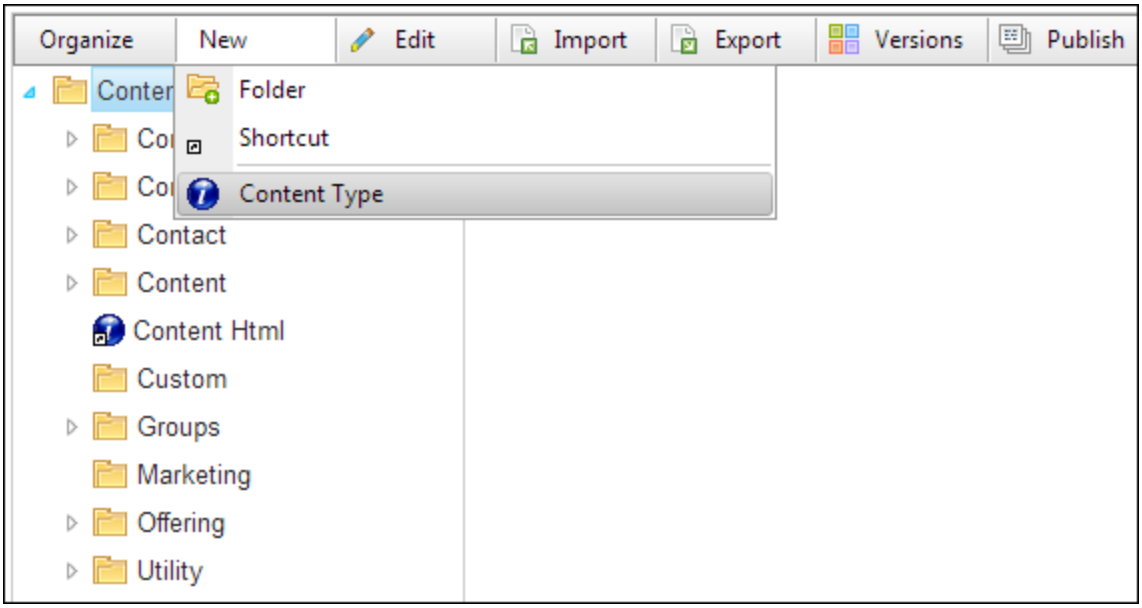
### Configuration options: content types

These fields control the properties of content types that are defined in the system.

In the Staff site, go to **RiSE > Maintenance > Content Types**.

- Select **New > Content Type**.
- Select an existing content type, then from the toolbar click **Edit**.

  Click to view image




*To place your control into the Content Gallery for easy sharing and reuse, create a content type.*

**Tips**

- The class libraries and user controls that you specify must be manually copied to a file path that resolves to the same root-relative URL on all servers that host iMIS content management websites.
  - The class libraries must be placed in the bin folder below the root of the physical path for the IIS application or IIS website that hosts your iMIS content management websites.

    **Note:** The class libraries should also be added to the **c:\AsiPlatform\Asi.Scheduler_[*your instance*]\bin** folder.

  - The user controls can be placed in any folder below the root of the physical path.
- When specifying paths to controls, be sure to use forward slashes (/) for the segment delimiters.

**Name of the Content Type, Description of the Content Type**

Specifies the name and description of the associated content item. If you are publishing this content item in the **Content Gallery**, be sure this text is as you want it to appear to users in the **Gallery** when they select content items for use in content records, and do not duplicate any content item names already appearing in the **Gallery**.

**URL to the control or page that is used to display items of this type at runtime**
Specifies a relative URL from the root (~) of the physical path for the IIS application or IIS website that hosts your iMIS content management websites to the web user control that should be used to display instances of the content item associated with this content type. By default, the root corresponds to **C:\Program Files\ASI\iMIS\Net**. For example, **~/CustomControls/myUserControl.aspx**.

If you have not created a custom **IContentType** class (you entered **Asi.Business.ContentManagement.ContentType.ContentTypeBase** in the **Name of the IContentType class within the assembly** field), a declaration to this control is embedded in published pages that use the content item, and the control will be dynamically loaded and inserted into the page when rendering the control (for preview or for search). If you've implemented a custom **IContentType** class, you can change this behavior to match your own requirements.

**Configuration options: Advanced Properties (optional)**
Name of the .NET assembly that contains the class that implements this content type
Specifies the name of the class library that contains the compiled **serializable class**.

Name of the serializable class within the assembly that implements this content type
Specifies the name of the class that implements the content item in Page Builder (which must inherit the base class **Asi.Business.ContentManagement.ContentItem**). You must enter the fully qualified class name, including the namespace.

Name of the .NET assembly that contains the IContentType class used to publish this content type
Specifies the name of the class library that contains the compiled **IContentType class**.

- If you are using the base **IContentType class** provided with iMIS content management for this content type, enter **Asi.Business.ContentManagement**.

- If you are using a custom-developed **IContentType class**, enter the name of the class library that contains the compiled class.

  Name of the IContentType class within the assembly
  Specifies the name of the class that implements the IContentType interface that iMIS content management uses to render and publish the content item.

- To use the default rendering and publishing behavior provided by the base **IContentType** class provided with iMIS content management, enter **Asi.Business.ContentManagement.ContentType.ContentTypeBase**.
- To perform custom actions when a content item is published or rendered, you can instead create a custom **IContentType** class (which must inherit the base class (**Asi.Business.ContentManagement.ContentType.ContentTypeBase**). You must enter the fully qualified class name, including the namespace.

  URL to the control or page that is used to collect the properties of a new item of this type
  Specifies a relative URL from the root (~) of the physical path for the IIS application or IIS website that hosts your iMIS content management websites to the web user control that should be used to collect properties when creating new instances of the content item associated with this content type. By default, the root corresponds to **C:\Program Files\ASI\iMIS\Net**. For example, **~/CustomControls/myUserControl.aspx**.

  In most cases, you should specify the same control here as for the **URL to the control page that is used to edit the properties of an existing item of this type**.

  > **Note:** This control is currently unused in this version of iMIS content management. Instead the control specified in **URL to the control page that is used to edit the properties of an existing item of this type** is used for collecting the properties for newly created content items and for existing content items that are being edited.

  URL to the control or page that is used to edit the properties of an existing item of this type
  Specifies a relative URL from the root (~) of the physical path for the IIS application or IIS website that hosts your iMIS content management websites to the web user control that should be used to collect properties when editing the configuration of an existing content

item associated with this content type. By default, the root corresponds to **C:\Program Files\ASI\iMIS\Net**. For example, **~/CustomControls/myUserControl.aspx**.

In most cases, you should specify the same control here as for the **URL to the control page that is used to collect the properties of a new item of this type**.

URL to the control or page that is used to collect parameters for content items of this type
Specifies a relative URL from the root (~) of the physical path for the IIS application or IIS website that hosts your iMIS content management websites to the web user control that should be used to collect parameter overrides for the content item associated with this content type. By default, the root corresponds to **C:\Program Files\ASI\iMIS\Net**. For example, **~/CustomControls/myUserControl.aspx**.

You use this type of control to override the configuration of a content item on a per-navigation-item basis. The parameter overrides can be specified in two different ways in a navigation item, depending on what type of input this control is written to accept:

- The **URL parameters** field can pass parameters in an ampersand-delimited string that is appended to the URL that fetches the associated content record.
- The **Content parameters** field can actually display selected properties from the control that defines the configuration page for the associated content item. In other words, a subset of the properties defined in the control specified in the **URL to the control or page that is used to edit the properties of an existing item of this type** field.
  Only one of the content types shipped with iMIS content management uses this field (**ContentTaggedList**), and the corresponding control is written to collect parameters from the **Content parameters** section of a navigation item.

URL to the icon graphic that represents items of this type
Specifies a relative URL from the root (~) of the physical path for the IIS application or IIS website that hosts your iMIS content management websites to an image file that should be displayed on rendered web pages as the Easy Edit icon for content items associated with this content type. By default, the root corresponds to **C:\Program Files\ASI\iMIS\Net**. For example, **~/CustomControls/mySurfToEditIcon.gif**.

The image file must be 16x16 pixels in size. If this field is left blank, a default Easy Edit icon is used (**~/AsiCommon/icon_con_usercontrol.gif**).

URL to the configuration help page
Specifies a relative URL from the root (~) of the physical path for the IIS application or IIS website that hosts your iMIS content management websites to the Configuration Help for the content item associated with this content type. This Help page displays when you click the link when configuring a content item. By default, the root corresponds to **C:\Program Files\ASI\iMIS\Net**. For example, **~/i-parts/Common/QueryMenu/QueryMenuHelp.htm**.

The visual look and feel of the Help page is based on the iMIS theme you have selected. To be consistent with the rest of iMIS, we recommend that you only use basic HTML and allow iMIS to style the page. However, if needed, you can tailor the page using internal CSS.

### Defining content authority groups

Do the following to define content authority groups (CAG).

1. In the Staff site, go to **RiSE > Maintenance > Content Authority Groups**.
2. Click **select** for an existing content authority group to modify its properties. You can also add or delete a content authority group:

- Click **add** to add a new content authority group:

a. Enter a **Group Name** for the new content authority group.
b. Select **MasterAdmin** if applicable.
c. You can also select to **Copy an existing iMIS Group**.

- Click **delete** to delete an existing content authority group.

3. Expand the **Group Membership** section to add new group members. Once members have been added, you can edit content authority group permissions for each member. When defining a content authority group, you can designate that it is a **Master Admin** content authority group. This assigns all members of this content authority group to the **Content Administrator** Document System security role, which gives all members of this content authority group full Document System permissions to all iMIS content management definition objects in the system. This is useful when you want to ensure that

members of this content authority group are never limited in any way by the Access Control settings of iMIS content management definition objects.

### Creating content authority groups based on iMIS security groups

To enable the people who perform web content authoring to view and define content folders and content records, you must grant Document System **Read**, **Edit**, and **Delete** permissions to these people in the **Access Settings** section of every content folder definition. It can be too permissive to grant these permissions to the security role **Everyone**, and it can be too tedious to add every person as an individual user just so you can grant them the appropriate permissions.

A much easier method is to define content authority groups that are based on your preexisting iMIS security groups, with each content authority group having the same members as the corresponding security group. Then, when defining content folders, you can assign the content authority group in the **Workflow Management** section, and in the **Access Settings** section you can grant Document System **Read**, **Edit**, or **Delete** permissions as needed to the corresponding security group, or **Full Control** permissions to confer **Read**, **Edit**, and **Delete** permissions.

Create a content authority group that is based on an iMIS security group.

1. In the Staff site, go to **RiSE > Maintenance > Content Authority Groups**.
2. Click **add** to add a new content authority group.
3. Select **Copy an existing iMIS Group**.
4. Click **select**.
5. Find the name of the iMIS security group you want to copy.
6. Click the name of the iMIS security group.
7. Click **Save**.

   This creates a content authority group that has the following:

- The same name as the selected iMIS security group, followed by **CAG**.
- The same members as the selected iMIS security group, which are copied at the time of creation. If additional members are later added to the security group, they are not automatically added to the content authority group.

- One of the members has **Content Editor** and **Default Owner** content authority group permissions assigned by default. All other members have no content authority group permissions at all. You must edit the permissions for each member.

  > **Note:** After you create a content authority group in this manner, the content authority group and the original iMIS security group do not automatically stay in sync. They are two different groups at this point and each must be updated separately.

Troubleshooting

- You must be a member of at least one **Master Admin** content authority group.
- You must have planned the content authoring workflow that you want for your organization.
- Optionally, you should have a list, prepared with the assistance of the person who performs iMIS administration, of the standard iMIS security groups for which you want to create corresponding content authority groups.

**Managing the content block content item's security using content authority groups**

Runtime access to the Content Block content item is controlled using permissions in Content Authority Groups. Only users with administrative access or the Content Editor permission can add content or posts, or a child, if applicable. Authenticated users without the Content Editor permission can reply to posts if replies are enabled, as well as edit or delete their own replies.

Giving a user content editor permissions

1. Go to **RiSE > Maintenance > Content Authority Groups**.
2. Click **select** for an existing content authority group to modify its properties. You can also click **add** to add a content authority group. In the **Select New Group Members** area, **add** the new user to the content authority group if they are not already a member:

a. Select **Last Name** in the **Select a Query** drop-down.
b. Find the new user based on their last name.
c. Click **Add** for the new user you want to add. The user is added to the content authority group.

   The Content Editor Permission can be added to a user in any content authority group.

3. In the **Current Group Members** area, click **edit permissions** next to the user's name.

4. Select the **Content Editor** checkbox. No other permissions are required to use Content Block, nor will additional permissions impact the use of Content Block.
5. Click **Update** to update the permissions.
6. Click **Save** to update the content authority group. The next time the user logs in to iMIS and navigates to a page containing a Content Block, they will see options to Add, Edit, and Delete HTML Posts and Child Posts, if enabled.

> **Note:** This permission also gives the user Easy Edit permissions which can be used to edit the content item configuration in iMIS content management. Editing content using Content Block or using iMIS content management is considered comparable from a security stand point. Also, System Administrators have full access regardless of any content authority group permissions.

Adding a reply or editing an existing reply
Authenticated Users, such as logged-in users, are allowed to create replies to posts if this function is enabled in the content item configuration. These users can also edit and delete their own replies, but not those of other users. System Administrators and Content Editors have full edit access to all replies.

Reading content block posts
All users are allowed read access to the Content Block content item. However, all other iMIS security still applies. Pages containing a Content Block can still be public or secure just like any other page on your website.

**Concept: content authority groups (CAGs) and content authoring workflow**
A content authority group (CAG) is a special type of iMIS security group whose members have permissions that are specific only to iMIS content management functionality. Content authority groups are also used to enable content authoring workflow.

content authority group permissions
Content authority group permissions are specified for each member of a content authority group. These permissions determine whether that member can create, edit, publish, and delete navigation items, content records, and content folders. They also determine whether that member can define content layouts, upload graphics for use in **Content**

**Html** content items, and upload files when defining a **ContentFile** content item.

Content authority group permissions are globally applied throughout iMIS content management. For example, if a specific iMIS user is granted permission to edit content records in any content authority group to which they belong, then that user has global permission to edit content records in any content folder.

Content authority groups can be designated as a **Master Admin** content authority group. Members of a **Master Admin** content authority group are automatically assigned to a special iMIS **Content Administrator** security role. iMIS users who belong to the **Content Administrator** role always have full Document System security permissions for all iMIS content management definition objects in the system.

Content authoring workflow
Content authoring workflow is enabled for a content folder by assigning a content authority group to the content folder. All content records created in that content folder will subsequently progress through the workflow that is defined by the permissions assigned to each member of the content authority group.

When new sub-folders are created, the content authority group assigned to the parent folder is copied into the definition of the new sub-folder by default (thus inheriting the parent folder's workflow), but any content authority group member with **Folder Editor** permissions can change or remove the assigned content authority group of the new sub-folder.

Content authoring workflow revolves around messages that appear in the Page Builder **Task List** for every person who is a member of at least one content authority group. Any person with access to **Content Management** can view anyone's Page Builder **Task List**. The Page Builder **Task List** is divided into the following categories:

- **Content you are working on** – Content records that you were the last person to define and save, and which are still in a **Working** state, are listed here. It does not matter whether you are a member of the content authority group assigned to the content record's parent content folder, or whether the parent content folder has a content authority group assigned to it.

- **Content awaiting your approval** – People who do not have **Content Approver** content authority group permissions cannot publish content records. Instead of seeing a **Publish** command, they see a **Submit for Approval** command, which submits a content publishing request. These content publishing requests are listed here for all people that have **Content Approver** content authority group permissions in at least one content authority group to which they belong. It does not matter whether you are a member of the content authority group assigned to the content record's parent content folder, or whether the parent content folder has a content authority group assigned to it.
- **Content deletion requests** – People who do not have **Content Approver** content authority group permissions cannot delete content records. They see the **Organize > Delete** command, but using it does not actually delete the content record from its parent content folder. Instead, this action submits a content deletion request. These content deletion requests are listed here for all people that have **Content Approver** content authority group permissions in at least one content authority group to which they belong. It does not matter whether you are a member of the content authority group assigned to the content record's parent content folder, or whether the parent content folder has a content authority group assigned to it.
- **Content that has expired or will soon expire** – If you are the assigned content owner for a content record that is defined to have an expiration date, expiration notices for that content record are listed here when that date approaches, when the date actually occurs, and at defined intervals after the date has passed.
- **Content change requests assigned to you** – When people who do not have **Content Editor** content authority group permissions use the Easy Edit feature of iMIS content management to edit a content item or content record on a rendered web page, they see a content change request form instead of the content record editor or content item editor. Such content change requests on content records for which you are the assigned content owner are listed here.

  **Note:** The person who creates a new content record is automatically assigned as the content owner for that content record (this assignment can be manually

changed after creation). It does not matter who the content owner assigned to the parent content folder might be.

**Warning!**

A content record does not have a content owner automatically assigned if it was created by a person who is a member of the **SysAdmin** role, but who does not have **Content Editor** content authority group permissions in at least one content authority group.

- **Unassigned content change requests** – Similar to the preceding bullet, except that content change requests for content records that have no specified content owner are listed here in the Page Builder **Task List** of every person who has **Content Editor** content authority group permissions in at least one content authority group to which they belong.

  **Note:** You must be a Full user and you must belong to at least one content authority group to see the **Content Management** tab. Casual and Public users who are members of a content authority group cannot see the **Content Management** tab, but they can interact with content records by using the Easy Edit feature.

**Concept: content authority group permissions versus Document System permissions**

Content authority group (CAG) permissions are specified for each member of a content authority group in the definition of each content authority group. Document System security permissions are defined in the **Access Settings** section in the definition of most iMIS content management definition objects.

Both types of permissions affect your ability to view and define iMIS content management definition objects. The interaction between these two different sets of permissions enables some sophisticated structuring of security access and content authoring workflow.

- Document System **Read** permissions for iMIS content management definition objects such as a content record or a navigation item determine not only which iMIS users can view the properties of that definition object within **Content Management**, but also determine who can see the rendered version of that object on a website.

For example, if a content record is assigned to the system role **Everyone** with **Read** permissions, then even anonymous visitors to an iMIS content management website will be able to view that content record's rendered web page. However, if only a specific security group such as "Board Members" is given **Read** permissions for that content record, then only members of that security group who have logged on to the iMIS content management website will be able to view that content record's rendered page. If they do not log on to the website with their iMIS logon name, they are treated as anonymous users and unable to view the rendered page.

- Document System **Edit** permissions are required to edit the properties of iMIS content management definition objects and **Delete** permissions are required to delete iMIS content management definition objects. However, these permissions are not sufficient by themselves. You must also have the corresponding content authority group permissions. For example:
  - If you have Document System **Read** and **Edit** permissions on a content record but you do not also have the content authority group **Content Editor** permission, then when you attempt to view the properties of that content record, you will see only a rendered preview of that content record. You might want a mixture of permissions like this, plus the content authority group **Content Approver** permission, for the staff in your content authoring workflow who you want to give the ability to approve or reject content, but not the ability to create or revise content.
  - If you have Document System **Read**, **Edit**, and **Delete** permissions on a content record and you have the content authority group **Content Editor** permission, then you will be able to view and edit the properties of that content record, but you will not be able to delete that content record. If you also have the content authority group **Content Approver** permission, then you will also be able to delete that content record.

**Configuration options: content authority groups**

These fields control the properties of content authority groups (CAGs) that are defined in the system.

In the Staff site, go to **RiSE > Maintenance > Content Authority Groups**.

You can click **add** to add a new content authority group, or select an existing content authority group.

Master Admin (Is Master Admin)
Assigns all members of this content authority group to the **Content Administrator** Document System security role, which gives the members full Document System permissions to all iMIS content management definition objects in the system. This is useful when you want to ensure that members of this content authority group are never limited in any way by the **Access Control** settings of iMIS content management definition objects.

Copy an existing iMIS Group
(displayed only when you click **add** from the main list of defined content authority groups)

Creates a content authority group that is based on an existing iMIS security group that you choose when you click **select**. This content authority group:

- Has the same name as the selected iMIS security group, followed by **CAG**.
- Has the same members as the selected iMIS security group (copied at the time of creation. If additional members are later added to the security group, they are not automatically added to the content authority group).
- One of the members has **Content Editor** and **Default Owner** content authority group permissions assigned by default. All other members have no content authority group permissions at all. You must edit the permissions for each member.

edit permissions
(displayed only after at least one member has already been added to the content authority group)

> **Note:** The following content authority group permissions are additive with the standard Document System permissions used for all iMIS definition objects. For example, even if you have **Content Editor** content authority group permissions, you will not be permitted to edit the properties of a specific content record unless you also have **Read** and **Edit** Document System permissions on that content record. And even if you have **Content Approver** content authority group

> permissions, you are not permitted to delete content records unless you also have **Delete** Document System permissions on each content record.

- **Content Editor** – Grants the ability to create new content records and edit the properties of existing content records. Also enables you to be designated as the content owner of a content folder or content record. The following workflow events appear in your Page Builder **Task List**:
  - Content record expiration notices
  - Content record change requests

  Clear this checkbox to revoke these permissions and prevent these workflow event notifications.

  > **Note:** If you do not also have **Content Approver** content authority group permissions, you will not be able to publish or delete content records. Instead of a **Publish** command on the toolbar, you will see only a **Submit** command, which notifies every person with **Content Approver** content authority group permissions that you have requested to publish the content record. Likewise, although you'll see a **Delete** command, the content record is not actually deleted. Instead, all content approvers receive notice that you have requested to delete the content record.

- **Default Owner** – Designates a single member of the content authority group as the default content owner to automatically assign to a content folder or content record if the current content owner becomes ineligible for any reason. For example, if you change the content authority group assigned to a content folder and the previous content owner does not have Content Editor content authority group permissions in the newly assigned content authority group (or isn't even a member of the new content authority group), then the **Default Owner** of the newly assigned content authority group is automatically assigned by the system as the new content owner for the content folder.
  - When you define a new content authority group, the first member that you add to the content authority group is automatically assigned both **Default Owner** and **Content Editor** content authority group permissions.

- You cannot remove **Default Owner** permissions from a content authority group member. Instead, you must assign Default Owner permissions to a different member (which also automatically assigns **Content Editor** permissions to that member if they do not already have them).

> **Note:** For content folders that have a content authority group (CAG) assigned to them, the **Owner of this content** value is not copied to new content records that are created inside of it. Instead, content records automatically have this value set to specify the first person who created the content record, which you can subsequently change as needed.

> **Warning!**
>
> A content record does not have a content owner automatically assigned if it was created by a person who is a member of the **SysAdmin** role, but who does not have **Content Editor** content authority group permissions in at least one content authority group.

- **Content Upload** – Grants the ability to upload images for use in **Content Html** content items and to upload other types of files for use in **ContentFile** content items. Clear this checkbox to revoke these permissions.
- **Content Approver** – Grants the ability to approve content records that have been submitted for publishing or for deletion. The following workflow events appear in your Page Builder **Task List**. By default, publishing requests are also emailed to you, but the person who performs iMIS content management implementation can disable these emails in **Settings > RiSE > Page Builder configuration**.
  - Content record publishing requests
  - Content record deletion requests

  Clear the **Send email to content approver when content is requested for approval** checkbox to revoke these permissions and prevent these workflow event notifications.
- **Folder Creator** – Grants the ability to create new and edit existing content folders. Clear this checkbox to revoke these permissions.

- **Folder Editor** – Grants the ability to edit the properties of existing content folders. Clear this checkbox to revoke these permissions.
- **Navigation Creator** – Grants the ability to create new and edit existing navigation items. Clear this checkbox to revoke these permissions.
- **Navigation Editor** – Grants the ability to edit the properties of existing navigation items. Clear this checkbox to revoke these permissions.
- **Layout Editor** – Grants the ability to create new content layouts and edit the properties of existing content layouts. Clear this checkbox to revoke these permissions.

### Document system

The **Document system** is the web-based document management system for your entire iMIS system, providing unified management, versioning, and security of your organizational content assets. It lets you view and maintain the full range of definition objects for iMIS:

- Business objects, used by Business Object Designer (BOD)
- Queries, used by Intelligent Query Architect (IQA)
- Workflow definitions
- Reports
- HTML files and Microsoft Word files, used for mail merge output

> **Note:** The Document system was not designed to be used on mobile devices.

#### Filtered views

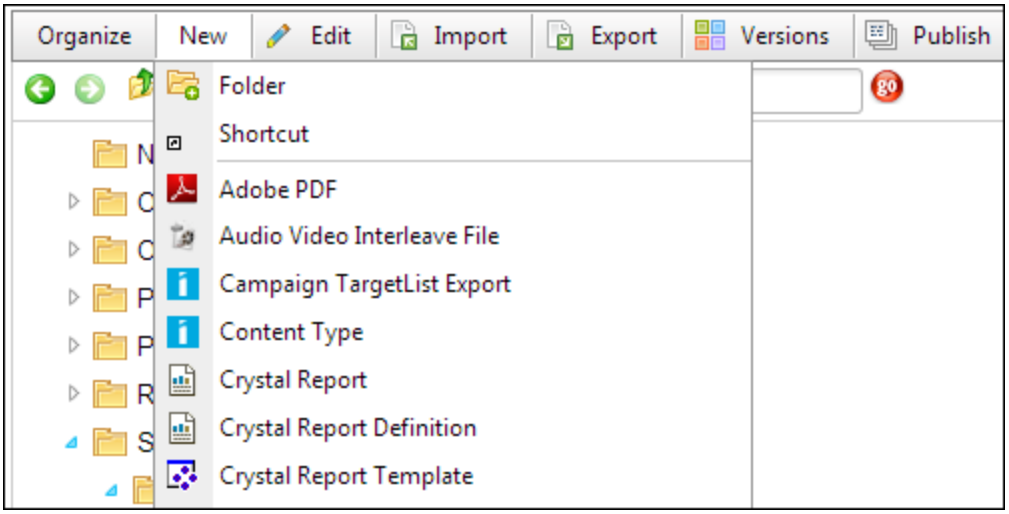
When you use the **Document system**, you see every type of object (document), but when you see the Document Browser throughout the rest of iMIS, the view is filtered to show you only what you need for that situation. For example, when working with IQA, the Document Browser only shows you queries. In the same way, toolbar commands such as **New** are filtered so that, when you are working in Business Object Designer, you can create only business objects.

#### Shortcuts

In the Document system, you can move and copy objects and folders to other folders. Beyond this, you can also create a virtual link (alias) in one folder that points to another object or folder, which keeps you from duplicating objects or folders that you want to

share in different contexts.

Click to view image




### Security access

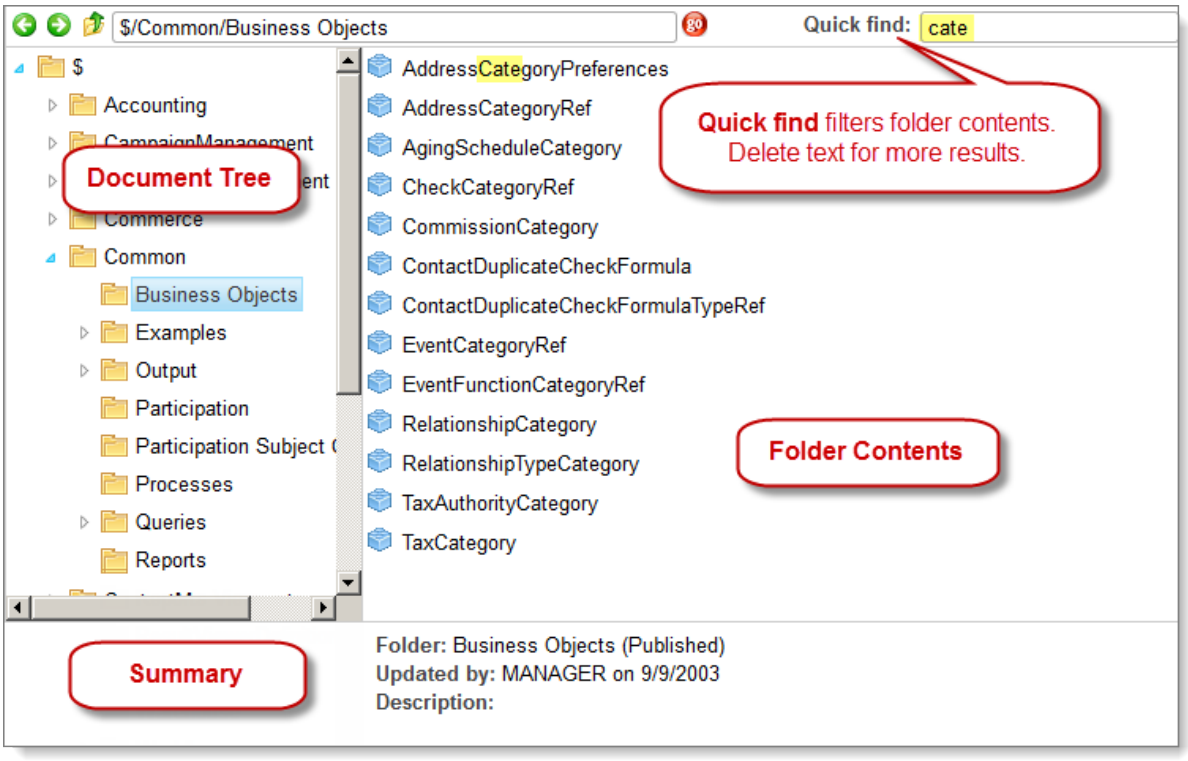
iMIS users that belong to the **SysAdmin** security role can see and maintain all definition objects that exist in the Document system. Users who do not belong to the **SysAdmin** role see a more limited set of definition objects that is determined by the security privileges (see Setting security access for folders and objects) that are set on each object or on each folder that contains objects.

For example, you can limit the visibility of an entire folder and its definition objects to a specific user-defined security role such as **Fundraising Users**. Alternatively, you could define that same folder to be visible to **Everyone**, but limit a few definition objects in that folder to be visible only to **Fundraising Users**.

### Document Browser

Go to **RiSE > Document system** to open the Document system, which has a toolbar at the top and the three-pane Document Browser:

Click to view image




The Document Browser also appears throughout iMIS for locating relevant objects, which it does by filtering the view so that you only see folders and objects that are appropriate for your current task. The Document Browser always appears with these three panes:

- **Document tree** – displays all folders that are relevant to the context in which the Document system is displayed.
- **Folder contents** – displays the contents of the folder that is selected in the document tree area. Folder contents can comprise definition objects, subfolders, or links to items that are located in a different folder.
- 
> **Note:** The **Quick find** box dynamically filters the folder contents, to help you to find items quickly when there are large numbers in the folder. Delete text to see more results.

- **Summary** – summarizes the basic properties of the item that is selected in the folder contents area. To show or hide the summary area, select **Organize > Display Summary**.

## Managing document folders

The document tree area of the Document system lists the folders available in the current view of the Document system. The folders that are visible depend on the roles and groups assigned to your user record as well as by what feature of iMIS you are using. The full extent of the folders available in the Document system can be seen only by SysAdmins.

Multiple hierarchies, different roots

There are several Document system hierarchies, each used for different areas of iMIS:

- **$/** – Business Object Designer (BOD) has its own hierarchy of business objects. The root is represented by a **$** character.
- **@/** – Content folders and content records exist in their own hierarchy. The root is represented by an **@** character.
- **~/** – Sitemaps each exist as their own hierarchy. The roots are represented by **~** characters.
- **$/** – All other definition objects exist in the main Document system hierarchy, portions of which are also exposed in other features of iMIS. The root is represented by a **$** character.

Tasks that you can perform

- Click an item to select it for use with a toolbar command and to display a read-only summary of its basic properties in the summary area.
- Double-click a folder to open the folder and display its contents.

Toolbar behavior when folders are selected

When a folder in the document tree area is selected, you can do the following through the toolbar:

- **Organize > Refresh** refreshes the document tree.
- **Organize > Cut**, **Organize > Copy**, and **Organize > Paste** enable you to copy or move entire folders, including all of their descendants. The cut or copied folder and all of its descendants are placed inside the folder that is selected when you use the **Organize > Paste** command.
- **Organize > Select All** selects all contents within the selected folder.
- **Organize > Delete** moves the selected folder and all of its descendants to the **Recycle Bin**.

- **Organize > Properties** shows a read-only summary of the selected folder's basic properties.
- **Organize > Display Summary** shows or hides the summary panel for the object selected.
- **New** displays a drop-down list from which you can choose a new folder or definition object type to create in the selected folder. When you select an object type, a properties window appears in which you can define the object. The object types shown in the drop-down list are determined by the properties of the selected folder, which you can examine by using the **Edit** toolbar command.
- **Edit** opens a window that enables you to edit the definition of the selected folder.
- **Import** imports an external XML file (created by the **Export** command on a different iMIS database) into objects in the Document system.

  > **Note:** You cannot use **Export** and **Import** to make copies of objects within the same iMIS database.

  The **Upload** button reads the XML file contents and displays a list of the definition objects that were exported to the XML file. You can select which of the objects to import, and whether to overwrite objects with the same database GUID in the destination folder or to create new copies of the objects. You can also opt to import the objects to the folder from which they were originally exported, or to override that default destination with the selected folder.

  For versioned document types, if a newer version of the object exists in the Document system, then the newer version is not overwritten during the import. Instead, the imported object is added as an archived version of the object. To replace the newer version of the object with the imported object, select **Versions** from the toolbar, choose the correct version, and click **Revert**.

- **Export** exports all selected folders and definition objects into a single XML file, which can later be used to import those objects into the same folder or a different folder in a different iMIS database.

> **Note:** You cannot use **Export** and **Import** to make copies of objects within the same iMIS database. To make copies, use **Organize > Copy** and **Organize > Paste**.

- **Versions** displays a list of the existing versions of the folder, from which you can:
- **Export** a specific version to an XML file.
- **Purge** a specific version from the version list, removing all traces of that version from the system.
- **Copy** a specific version to a new folder with a different name.
- Create a new version based on any existing version by selecting the version, clicking **Revert** (which creates a new working version), and then publish the working version. If you make no changes to the working version you are effectively reverting to the state of the selected version, although technically it becomes a more recent version in the list of versions.
- **Run** cannot be used in this context. You must use this command from the folder contents area.
- **Publish** transforms all working versions of the descendant definition objects in the selected folder into published versions of those objects. Only the most recent published version (of a versionable object) is actively used by the system. You must select the **Publish children as well?** checkbox when publishing a folder.

Manage folders and objects in the Recycle Bin

Folders and definition objects that have been deleted are moved to the Recycle Bin at the bottom of the Document system hierarchy.

- To permanently delete individual folders and definition objects that you do not think you'll ever need again, select an object listed in the recycle bin and from the toolbar choose **Organize > Purge**. To permanently delete the entire contents of the recycle bin, select the **Recycle Bin** itself and from the toolbar select **Organize > Empty the Recycle Bin**.
- To restore a deleted definition object, select it and from the toolbar choose **Versions**. In the version history that appears, click the **Recycled** version at the top of the list and click **Revert**. The definition object is moved to its original parent folder in the hierarchy, and its

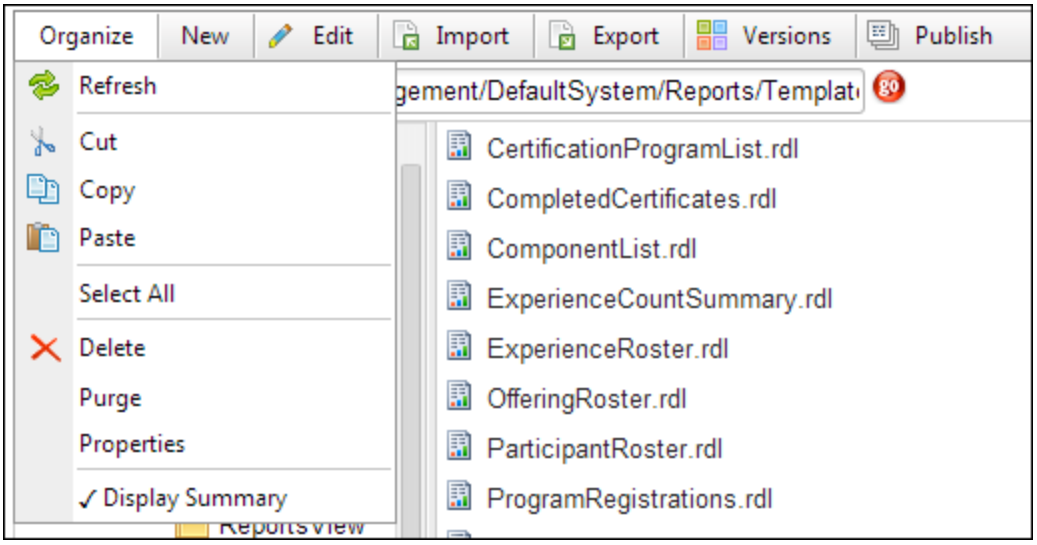
status changes to **Working**. You must then re-publish the definition object to make it active again.

> **Note:** If the definition object's original parent folder no longer exists, the restored object is placed in the root folder of the Document system hierarchy. You must move it out of the root into another folder before you'll be able to publish the object.

### Managing folder contents

The folder contents area of the Document system lists the definition objects, subfolders, and links that are stored in the folder selected in the document tree area.

Click to view image




Tasks that you can perform

- Click an item to select it for use with a toolbar command and to display a read-only summary of its basic properties in the summary area.
- Select multiple items for use with a toolbar command or right-click command by holding down **Shift** or **Ctrl** while clicking each item. The last object you select is the one whose properties are displayed in the summary area.
- Double-click a definition object to perform one of the following actions (depends on the type of object):
- Open a properties window that enables you to edit the definition of the object.
- Open the Document Utility.

- Double-click a folder to open the folder and display its contents.

Toolbar behavior when items are selected

When an item in the folder contents area is selected, you can do the following through the toolbar:

- **Organize > Refresh** refreshes the document tree.
- **Organize > Cut**, **Organize > Copy**, and **Organize > Paste** enable you to copy or move the selected definition objects. The cut or copied objects are placed inside the folder that is selected when you use the **Organize > Paste** command.
- **Organize > Select All** selects all contents within the folder.
- **Organize > Delete** moves the selected objects to the **Recycle Bin**.
- **Organize > Properties** shows a read-only summary of the selected object's basic properties.
- **Organize > Display Summary** shows or hides the summary panel for the object selected.
- **New** displays a drop-down list from which you can choose a new folder or definition object type to create. When you select an object type, a properties window appears in which you can define the object. The object types shown in the drop-down list are determined by the properties of the folder in which you are working. You can examine these folder properties by selecting the folder in the document tree area, then choosing the **Edit** toolbar command.
- **Edit** opens a window that enables you to edit the definition of the selected folder, object, or of the object to which a selected link points.
- **Import** imports an external XML file (created by the **Export** command on a different iMIS database) into objects in the Document system.

> **Note:** You cannot use **Export** and **Import** to make copies of objects within the same iMIS database.

The **Upload** button reads the XML file contents and displays a list of the definition objects that were exported to the XML file. You can select which of the objects to import, and whether to overwrite objects with the same database GUID in the destination folder or to create new copies of the objects. You can also opt to import the objects to the folder from

which they were originally exported, or to override that default destination with the current folder.

- **Export** exports all selected folders and definition objects into a single XML file, which you can use later to import those objects into the same folder or a different folder in a different iMIS database.

  > **Note:** You cannot use **Export** and **Import** to make copies of objects within the same iMIS database. To make copies, use **Organize > Copy** and **Organize > Paste**.

- **Versions** displays a list of the existing versions of a versionable object, from which you can:
- **Export** a specific version to an XML file.
- **Purge** a specific version from the version list, removing all traces of that version from the system.
- **Copy** a specific version to a new definition object with a different name.
- Create a new version based on any existing version by selecting the version, clicking **Revert** (which creates a new working version), and then publish the working version. If you make no changes to the working version, you are effectively reverting to the state of the selected version, although technically it becomes a more recent version in the list of versions.
- **Run** executes a selected query, report, or other object types that are designed to be run.

  > **Note:** If the selected object is an .RDL report file, click Run to open the report in a new window.

- **Download** the selected object (PDF, .DOC, or .XLS file). You can open the file in its assigned editor.
- **Preview** displays a fully rendered view of the selected navigation item, content record, or other CM object types that are designed to be previewed.
- **Publish** transforms a working version of an object into a published version. Only the most recent published version (of a versionable object) is used actively by the system.

**Virtual linking among folders**

Many Document system folders in iMIS contain a default virtual link to the **Common > Shared Documents** folder, which is the central location for definition objects that are available without restriction to all staff users. These virtual links enable users who are given only limited access to the Document system functionality to easily navigate back to the top of the **Shared Documents** sub-tree.

> **Note:** These default virtual links to the **Shared Documents** folder can be deleted by any user that belongs to the **SysAdmin** role.

There are also some hard-coded virtual links within the Document system, which exposes specific folders in various locations throughout the iMIS interface.

Click to view table

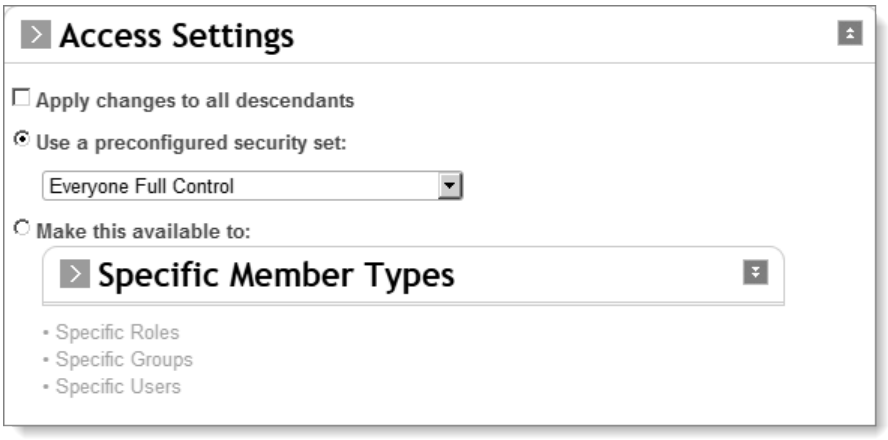
| Document system Folder | Where Folder Contents Are Exposed |
|---|---|
| CampaignManagement > DefaultSystem > Reports View | Continuum > Campaign Reports |
| Common > Output | Community > Manage marketing campaigns > View output |
| Common > Shared Documents | You can access many of these reports from **Continuum** on the Staff site. |
| OpportunityManagement > DefaultSystem > ReportsView | Continuum > Process Manager reports |
| OrderManagement > DefaultSystem > Queries > Advanced > Order | Continuum > Commerce reports |
| RFMAnalysis > DefaultSystem > ReportsView | Continuum > RFM reports |
| RFMAnalysis > DefaultSystem > Process Engines | Community > Manage RFM > RFM Analytics |

| Document system Folder | Where Folder Contents Are Exposed |
| --- | --- |
| RFMAnalysis > DefaultSystem > Process Engines > User Queries | Community > Manage RFM > RFM Analytics, double-click User Queries |
| SegmentManagement > DefaultSystem > ReportsView | Continuum > Segmentation reports |

### Using Access Settings

**Access Settings** give you a consistent way to apply security (grant permissions) to folders and objects throughout iMIS: entire websites, individual navigation items, content records, queries, business objects, and the wide array of objects that you can define, import, and store in the Document system.

Click to view image




Access Settings are immensely flexible: they let you tie an object's permissions to iMIS security roles, security groups, specific users, member types, or your organization's staff (licensed iMIS users).

> **Note:** You can meet most of your needs using the preconfigured security sets that ship with iMIS, so become familiar with those.

- **Apply changes to all descendants** – (Document system folder objects) Changes to this section, when saved, flow automatically to all descendant definition objects. When cleared, changes to this section apply only to the current definition object.

- **Use a preconfigured security set** - Specifies a preconfigured security configuration to use for this definition object, which is the default and preferred way to set permissions for definition objects. You can see the specific permissions that make up the security set in the **Make this available to** area.

  > **Note:** If a preconfigured security set is close to what you need, select it and then select Make this available to, so that the permissions granted by the security set are copied for you to work from.

- **Make this available to** - Lists the roles, groups, users, member types, or authorization levels that may define or view rendered output from this object. If none of the pre-configured security configurations meets your needs, you can set custom permissions here.
  The **SysAdmin**, **Content Administrator**, and **Everyone** roles are default system-defined security roles that are assigned to every definition object. The **SysAdmin** role is assigned in the definition of an iMIS user record, but the **Content Administrator** role is automatically assigned to every iMIS user who is a member of a content authority group (CAG) that is designated as a **Master Admin** CAG.

  The permissions that can be assigned to each entry in the list are:

- **Full Control** - Enables all of the following permissions.
- **Read** - Enables users to see this object both in definition windows and as rendered output in websites, but they cannot change the object's definition.
- **Add** - Enables users to create new objects, or to paste or import an object into the Document system.
- **Edit** - Enables users to edit this object's definition, but not to delete the object.
- **Delete** - Enables users to delete this object.
- **Select** - Enables users to assign a tag to content folders and content records.

  > **Note:** These permissions are only used with Content Authority Groups. To see how they are used with CAG, please see Defining content authority groups .

  Custom security groups (use sparingly)

You can add/remove specific Roles, Groups, and Users and assign them each a specific set of permissions. Making this type of change to the security for an object results in a new unique AccessKey for the specified Access List permissions.

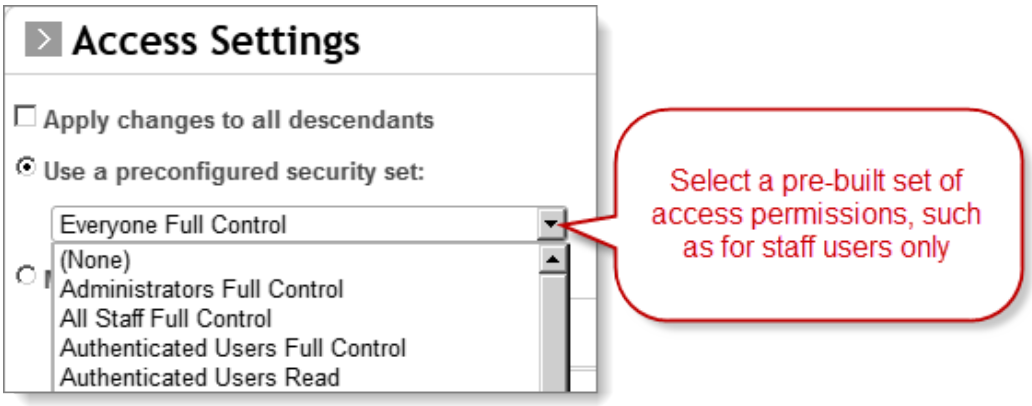
You can create a custom security group by tweaking a predefined group or building your own from scratch (using the **Make available to** radio button). While a custom security group offers great flexibility, it jeopardizes performance, because it adds several rows per object. If the security tables get too large (given that they are joined on every query), your system can slow significantly.

> **Note:** To minimize performance impacts, avoid using custom security groups where their effect multiplies: folders, Navigation items, and **all children the same** (unless you are using shared security, or it is mission-critical).

### Preconfigured security sets

Throughout iMIS, whenever you configure Access Settings, you see a drop-down list of available security settings that you can apply to individual folders and objects. These security sets offer you easier control and faster iMIS performance than defining custom ones.

Click to view image




These are the key security sets you should use, from most permissive to least:

- **Everyone *** – no restrictions, including the public (if they can access this level/context).
- **Authenticated Users *** – restricts access to users who are signed in (both staff and public members).
- *** Staff *** – restricts access to users by licensing: **Full Staff Full Control** limits to Full users, **Casual Staff Full Control** limits to Casual users, and **All Staff Full Control** limits to Full and Casual users.
- **Administrators *** – restricts access to users with the SysAdmin role.

> **Note:** Tip: If you do not have the feature named in the security set (such as **Certification**), do not use the set.

iMIS ships with these pre-built security sets to cut down on the customization you need, for objects that should be neither unsecured (**Share**) nor locked for you alone (**Private**). Each security set contains a predefined Access List and permissions (**Full Control**, **Read**, **Add**, **Delete**, **Edit**) that are constant for all objects that use it. A **Select** permission is also available for tagged objects.

When you choose a set, the **Current Access List** below it updates to show the settings it includes. Look at those details to decide if the selected security set has the permissions you need.

Feature-specific default security
Most feature-specific security sets have three levels (Admin, Manager, User), each of which allows access for any level above it. For example, **Certification Users** grants access for Managers and Admins as well. Note that you can define your own access settings based on User-level security: Roles and Groups.

For example, applying **Segmentation Job Default Access** security means that

- Users in the **SegAdmin** group get control privileges.
- Users in the **SegMgr** group get Read+Add+Edit+Delete privileges.
- Users in the **SegUser** group get Read-only privileges.
- Users in the **SysAdmin** role get control privileges.

## Setting access for folders and objects

iMIS SysAdmins have **Full Control** access to all folders and objects in the Document system, so they can also define security privileges for every folder and object.

- **New folders have unrestricted access** – When a new folder is created, the **Everyone** role is granted **Full Control** by default.
- **Folder permissions are not the same as per-object permissions** – you can set **Control**/**Read**/**Add**/**Edit**/**Delete** privileges individually for most definition object types in the Security page of its properties window, independent of the folder.
- **IQA folders are special** – Certain folders within the Document system are exposed through the **IQA** task list item in **Customers**, **Events**, **Billing**, **Fundraising**, and **Orders**. These folders and all sub-folders that they contain behave differently when viewed from the **IQA** task list item:
- You can create only queries in these folders even if the folder is defined to allow any type of definition object. Only members of the **SysAdmin** role who edit these folders from **RiSE > Document system** can create the other types of allowable objects.
- If any user modifies the folder definition to disallow the creation of **Query** objects, the folder and all of its contents become invisible from within an **IQA** task list item. Only members of the **SysAdmin** role who are viewing the entire Document system through **RiSE > Document system** are subsequently able to see the folder.

Define security access for a folder

1. In the Document system, select a folder and click the **Edit** toolbar command.
2. In the **Only allow certain types of objects in the folder?** area, specify the objects to be allowed in the folder. Multi-select object types from the list by holding **Shift** or **Ctrl** while clicking items in the list.
3. For the **Access Settings**, select **Private** or else select **Use a preconfigured security set** and select a set from the list, if any apply.

   **Note:** For best performance, use Preconfigured security sets.

4. If you need custom access settings, enable **Make this available to** and complete the panel.
   - For **Specific Roles**, select the checkbox for each system-defined role that should have access to the folder. For each role, you can click the **Edit** icon next to the role name to

define the specific privileges for that role.

- For **Specific Groups** and **Specific Users** areas, add the groups and users that should have access to this folder, and click the **Edit** icon next to each entry to define the specific privileges for that entry.

5. At the bottom of the folder security definition window, click **Save** to commit the changes.

### Task Viewer

You can use the Task Viewer to view, edit, delete, and add tasks.

The following are some tips for managing tasks:

- You can access the Task Viewer from RiSE.
- Any user can modify the status of any task at any time, even if the task has already been completed.
- By default, a task can only be seen by its creator, an administrator, or a user who has been assigned the task.
- By default, only tasks that are currently in progress are displayed. You can view completed tasks if needed.
- When adding more than one task, you must save and close the window after adding each task.

### Workflow

You can use RiSE to view the workflow queue. You can view workflow queue items that are currently running or that are waiting to be run. You can also view failed workflow queue items and delete or reschedule any failed workflow queue items.

> **Note:** If multiple workflow processes are queued, processing of these items will continue until all workflow services associated with the database are stopped.

#### Workflow engine

Understanding process workflows

Throughout iMIS, there are many examples of workflow processes:

- Processing orders through order entry, confirmation, approval, shipping, shipping notification, invoicing
- Processing a member application

- Signing up an exhibitor and following and tracking the process through the various contracts and order requirements
- Processing opportunities
- Issue Management
- Marketing campaigns
- Timed responses to inactivity
- Multi-part mailings: Letters and labels to go with the letters

  These are examples of what we will call **process workflow** and generally are thought of as **persistent workflows**, which might take a few minutes, days, or even months to complete.

  Workflows typically:

- Have an ownership structure.
- Are related to a specific parent object, like an order, complaint, and so on.
- Have a set of tasks that must be executed according to business rules.

Workflow engine components

To deal with this pattern of needs on a consistent basis, iMIS provides a Workflow Engine.

There are two primary components of the workflow engine:

- **Process Definition Rules** – Process definitions list all of the tasks for the workflow as well as the rules as to when the tasks are to be executed, and what the subsequent actions are to be initiated upon task completion. Tasks need not all execute serially. For instance, a workflow might have a step that requires approval from multiple sources, not necessarily sequentially.
- **Workflow Instances** – Workflow instances are the actual workflows in action. Workflows might carry their own process definition rules within, or might simply refer to the standard definition for the workflow type. When rules are carried by the workflow, they might be constructed or modified dynamically by applications. Workflow instances have one or more owners with specific roles.

How iMIS workflows work

As workflows progress and workflow rules are interpreted, work items (or tasks) are generated. Tasks are generally assigned to specific individuals or process queues. Automatic processes are executed without human intervention. People-oriented queues show as tasks to your users. Tasks are never deleted; they are only marked complete. Tasks record time and, in some cases, effort for completion. The analysis of task data performance data can be a good source of information for process improvement.

The workflow itself can carry state data, document attachments, references to customers and their roles.

Workflows can run totally off their static definitions, or be created or modified by runtime processes.

Workflows are always used for system processes such as **print invoices**, **print AR statements**, and so on. Since workflows are extensible, field users can add or subtract steps to these processes. Workflows are used to move most all of the older hard-coded processes like **print invoice**, **convert order**, **do due billing run** from hard-coded processes to extensible processes and allow installers to mold these processes to customer needs in a consistent way.

Workflows can be executed in a number of environments. They can run silently in the background as queues of work are worked off by the workflow engine's background and scheduled processes, or can be run interactively. In the interactive situation, a standard dialog, similar to an installer dialog, will display progress and asks for intervention as required.

An initial implementation of the workflow engine exists in Process Manager. However, that implementation did not implement business rules or automatic application execution.

### Process engine

Understanding list-based processes

Another common pattern in iMIS is the situation in which there is a list of objects (1-n), where you would like a particular process to be performed across the list. Refer to the table for examples of this pattern.

Click to view table

| List | <–> | Process | Template |
|---|---|---|---|
| Subscription Group<br>IQA Query<br>Individual person | | Print a Crystal report | Report.rpt |
| | | Print an HTML Report | XSL template |
| | | Print Labels | Labels.rpt |
| | | Send an e-mail | Letter template |
| | | Send best available of: report, fax, or e-mail | Customer parameters, report/letter templates |
| | | Create a subscription group | Group, role, etc. |
| | | Register people for an event | Event, standard functions |
| | | Transmit to another site | Custom parameters |
| | | Add list to a marketing campaign | Campaign information |
| | | Render a web roster | XSL Template |
| | | Exchange Export | Custom parameters |
| | | Specialized exports | As Needed |

Though there are many occurrences of this pattern, perhaps it would be helpful to isolate our study of this problem to the single situation of an ad hoc query tool. Typical tasks could include:

- Creating a query that selects a particular group of customers
- Sending something to the list: perhaps an e-mail, a letter, a fax, or add them to a marketing campaign (a subscription group)
- Naming or editing our own letter or e-mail template
- Scheduling for subsequent execution

We would also like to be able to carry out these types of processes over time on or to new types of processes, without having to update our query selection tool constantly.

## Process engine services

Our implementations that deal with this pattern are known as Process engines. Process engines are generally services, encapsulated in objects that are sub classed upon the base Process Engine.

Process Engines must inherit the base process engine class and provide a few basic services (methods).

- On demand, they must supply a visual template editor which is sub classed from the Process Engine Template base class. The template editor interacts to select or define a template specific to the type of process. For instance:
- Crystal reports template editor allows a user to specify the location of a crystal report and any parameters that will be needed to execute the report.
- Mail merge process engines specify or define on the fly a mail-merge template.
- A multi-output process engine may specify the rules about when to choose which media type and what letter templates will be used. A multi-output process engine is an application that receives an initial input then delegates subsets of the input list downstream to other process engines.
- Provides standard methods to execute a process, monitor progress, log errors, and report results.

  Process Engine objects are frequently bound to query objects. Template Process Engine objects (such as a process engine for Crystal Reports but no report specified), and specific process engines (such as a process engine for a specific Crystal report), are generally persisted in document libraries with or without bound query objects that, in term, provides a catalog of available processes to users and administrators. In fact, process engines bound to query objects present a major part of the iMIS application to user, especially for the standard and ad hoc reports users use continuously.

  Process Engine objects with bound query objects are frequently queued as tasks within a workflow for subsequent execution. Multiple process object tasks can be included into a single workflow for report sets or multi-step processes.

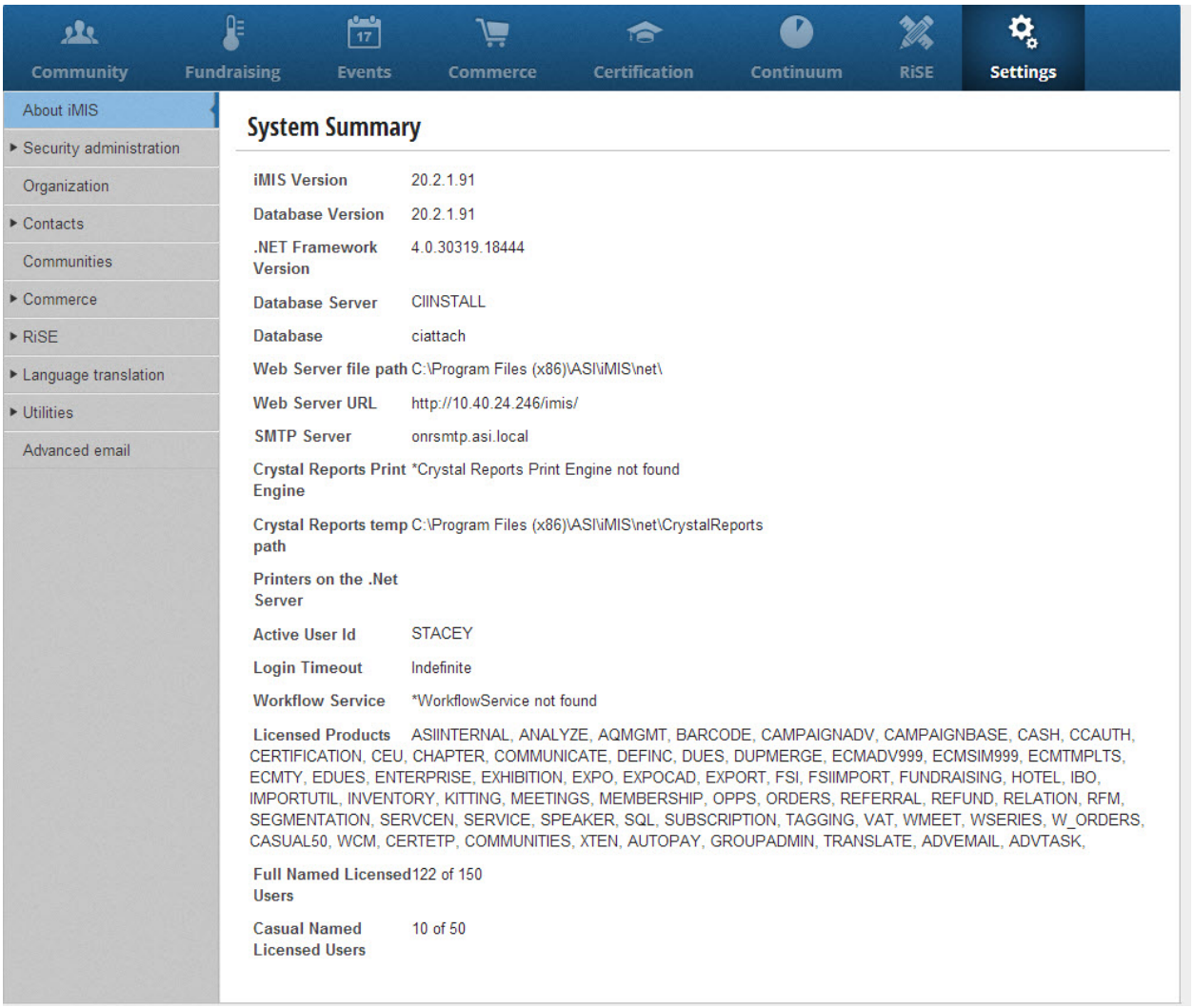
## Example process engines

- Crystal reports
- XSL/HTML reports
- E-mail system
- Word Merge
- Create subscription group from query
- Add people to marketing campaign (same as above)
- Register people from query
- Multi-output process engine

  Uses for process engines (with bound query objects)
- Data-oriented web pages
- Reports and the report catalogs
- Dues billing run definitions

## Settings

The **Staff** site **Settings** page provides an overview of your system's licenses and configurations. From the **Settings** navigation, you are also able to set system-wide preferences for contact security, payment gateways, and language translation settings.

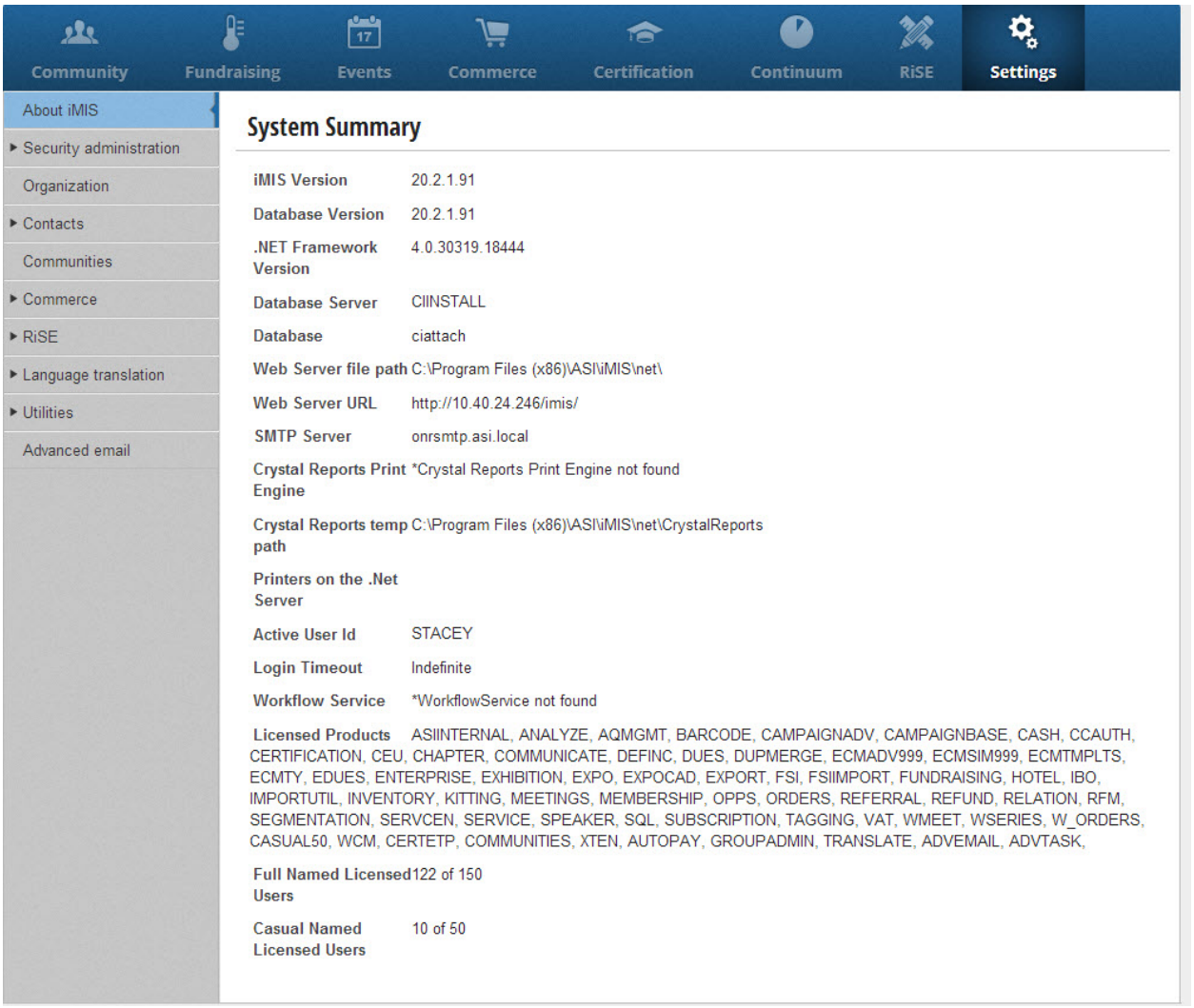



*See also*

- Security administration
- Organization
- Contacts
- Communities
- Commerce
- RiSE
- Language translation
- Utilities
- Advanced email

## Settings

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*See also*

- Security administration
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- Contacts
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- Language translation
- Utilities
- Advanced email

### Security administration

In the Staff site, go to **Settings > Security administration** to grant access for different areas to users. To set up access for users, you must have the SysAdmin role to:

- Assign logon credentials and user type (Public, Casual, Full)
- Add roles
- Add groups
- Assign access for staff users

iMIS websites by view and class

When users log on to iMIS through any of its website views (**Staff**, **Member**, or **Advanced Accounting Console**), exactly what each can see and do will vary according to two factors:

- Licensing - the keys registered in your iMIS database which enable features and numbers of users
- Credentials - the user class and any roles, groups, authorization levels, and access keywords defined in each user record

Here is what **Full**, **Casual**, and **Public** user classes can do in each of the views of iMIS when you grant them the fullest access possible:

| | Full user | | Casual User | | Public User |
|---|---|---|---|---|---|
| **Features** | **Advanced Accounting Console** | **Staff Site** | **Advanced Accounting Console** | **Staff site** | **Member Site** |
| **Community** | | | | | |
| Find/view contact or committee* | ✓ | ✓ | ✓ | ✓ | directory* |
| Add new contact | ✓ | ✓ | ✓ | ✓ | my company* |
| Edit contact profile data | ✓ | ✓ | ✓ | ✓ | myself, my |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | company* |
| View activities | ✓ | ✓ | ✓ | ✓ | my trans-actions |
| Add/edit call log | ✓ | ✓ | ✓ | ✓ | |
| Maintain user logon/-password | ✓ | ✓ | ✓ | ✓ | |
| Add/edit committees | ✓ | | ✓ | | |
| Add/edit non-call activ-ities | ✓ | | ✓ | | |
| Manage chapter rosters | ✓ | | ✓ | | |
| Run contact-related reports | ✓ | | ✓ | | |
| **Events** | | | | | |
| View event regis-trations | ✓ | ✓ | ✓ | ✓ | myself, my company* |
| Run event-related reports | ✓ | | ✓ | | |
| Register contact for an event | ✓ | | | | myself, my company* |
| Set up/manage events | ✓ | | | | |
| **Fundraising** | | | | | |
| View giving history | ✓ | ✓ | ✓ | ✓ | myself |
| View gifts, pmts, adjs, | ✓ | | ✓ | | |

| | | | | | |
|---|---|---|---|---|---|
| rqsts | | | | | |
| Enter gifts via Rapid Gift Entry | ✓ | ✓ | | ✓ | |
| Run fundraising-related reports | ✓ | | ✓ | | |
| Process donation for a contact<br><br>*Note*: The Staff site supports processing donations for a contact, using the On Behalf Of feature. | ✓ | ✓ | | | myself |
| **Commerce** | | | | | |
| View product orders | ✓ | ✓ | ✓ | ✓ | myself |
| Run orders-related reports<br><br>*Note*: The Staff site supports creating IQA and SSRS reports. | ✓ | ✓ | ✓ | | |
| Place product orders for a contact | ✓ | | | | myself |
| Set up products or warehouses | ✓ | | | | |
| View billing history | ✓ | ✓ | ✓ | ✓ | myself |
| Run billing-related reports | ✓ | ✓ | ✓ | | |

| | | | | | |
|---|---|---|---|---|---|
| *Note*: The Staff site supports creating IQA and SSRS reports. | | | | | |
| Process accrual dues | ✓ | | | | |
| Pay billing for a contact<br><br>*Note*: The Staff site supports paying billing for a contact, using the On Behalf Of feature. | ✓ | ✓ | | | myself |

Which contact records can be accessed?

- Members find contacts and committees through the directory, which shows limited contact information
- Members can access their own records
- Members can also access the profile and event registrations for others in their organization (my company), but only if authorized to manage their company roster
- Users with access to the Staff site and to the Advanced Accounting Console are able to access all contact information

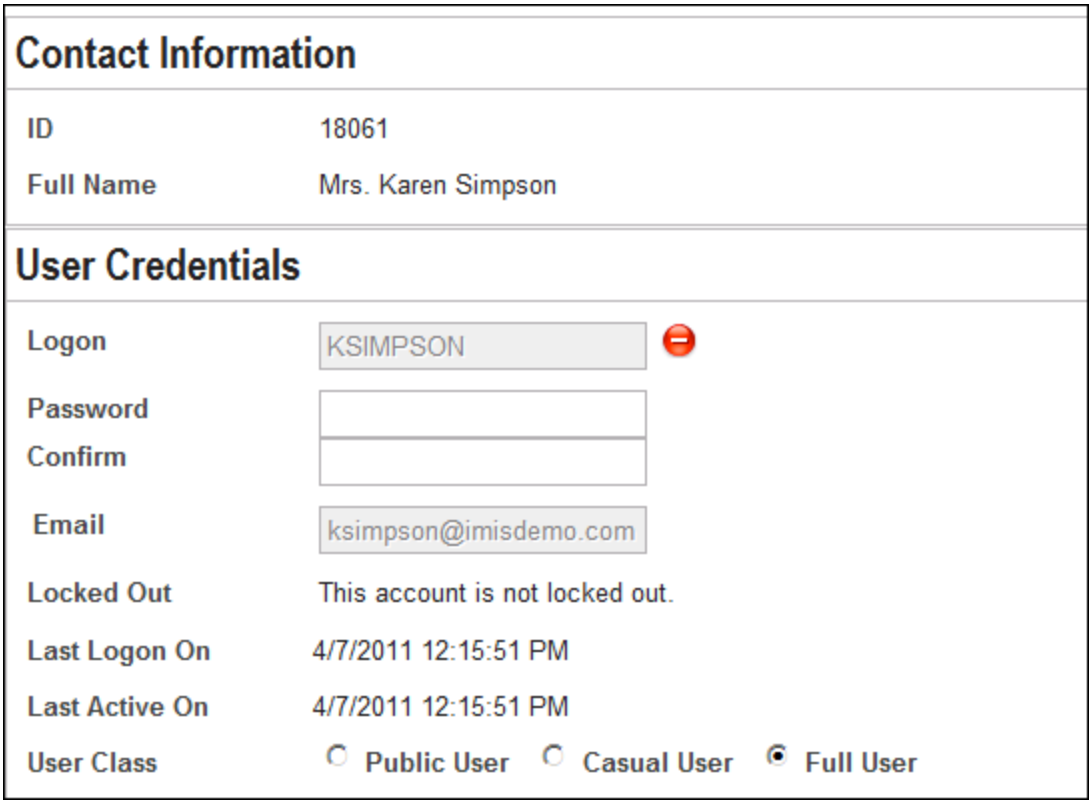
Assign logon credentials and user type

1. In the Staff site, go to **Settings > Security administration > Users**.
2. From the query drop-down, you can choose to find **Contacts**, **All Full and Casual users**, or **Users**. Depending on the query you select, additional search filters are provided to help you narrow the search results.
3. Click **Find** and select the record from the search results.
   The contact information displays with three main sections: **User Credentials**, **User Information**, and **Staff Access**.

   **User Credentials**

   The credentials shown are retrieved from the ASP.NET authentication store. If the contact listed in the **Contact Information** area is not an iMIS user, the fields in the **User Credentials** area are empty. To add or edit credentials, click the red icon.

Click to view image




- **Logon** – Displays this authentication record's logon name (user name). **No User Selected** displays when the authentication record is not linked to a user record.
- **Password/Confirm** – Input fields for changing an existing password. By default, passwords must contain at least seven characters with at least one numeric character and at least one alphabetic character. You can change the default password complexity requirements by editing the Web.config files for the iMIS application (located by default at **C:\Program Files (x86)\ASI\iMIS\Net** and **C:\AsiPlatform\Asi.Scheduler_ [*your instance*]\web.config**).
- **Email** – When you create a new authentication record, if the iMIS contact record includes an email address, iMIS populates the Create User Logon window with that address. However, the value that is displayed in this area of the Users window is always the value that is stored in the ASP.NET authentication store.
- **Locked Out** – Indicates whether this authentication record is temporarily blocked from gaining access to iMIS. By default, iMIS locks out an authentication record after five failed

attempts to log on. You can change the default by editing the Web.config file for the iMIS application.

Unlocking a user's account

Accounts become locked after several incorrect login attempts.

To unlock an account, log in as a SysAdmin user.

1. From the Staff site, go to **Settings > Security administration > Users**.
2. Search for the user, then select their iMIS Id.
3. In the "**User Credentials**" panel you will see a message stating that the account has been locked out. There will be a pencil icon to the right of this. Click the pencil icon to unlock the account.
4. Click Save.

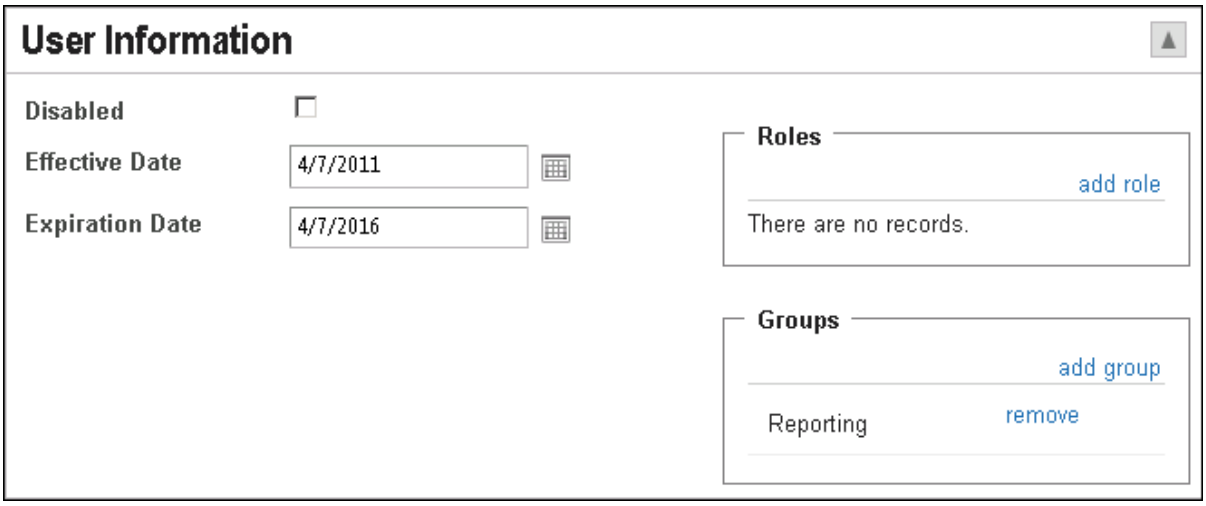
- **User Class** – Specifies the license (see Types of iMIS licenses and views) to apply to this user, which controls all subsequent authorization.

> **Note:** Only those contacts with the user class of **Full User** are able to see the **Staff Access** areas and be assigned to **the On Behalf Of** role.

### User Information

The User Information area displays after user credentials are entered.

Click to view image



**Disabled** – Select this option if you do not want the selected user account to be used immediately.

**Effective Date** – Enter the date when these credentials become valid.

**Expiration Date** – In iMIS, the **Expiration Date** for an account is a rolling date based on the last login (sign-in) date. By default, the expiration date is five years from the last login date, and this date is reset after every login.

Do the following to configure the account expiration date based on the last login date:

1. In the Staff site, go to **Settings > Contacts > Account Management**.
2. Specify a new value in the **Default account expiration, in years from last login (CreateAccountDefaultExpirationDate)** field. Whenever a user signs in, their account expiration date is reset to that login date plus the number of years specified in the **Default expiration date, in years from last login** field. For example, if this value is 3, and a user signs in on January 1, 2015, their account expiration date is set to January 1, 2018.

### Add security roles

Security roles grant specific administrative privileges to user records, such as the right to edit an iMIS definition object in the Document System. In iMIS, there are five system roles that you cannot delete: **SysAdmin**, **CompanyAdministrator**, **OnBehalfOf**, **Everyone**, and **Content Administrator**. The **OnBehalfOf** role can only be assigned to a **Full User**.

Two roles are dynamically assigned to users: **Everyone** and **Content Administrator**. These roles are hidden and cannot be added to a user's role. The **Everyone** role is assigned to authenticated and guest users. The **Content Administrator** role is assigned to members of any Master Admin Content Authority Group.

For information about the Company Administrator role, see Company Administrator Role.

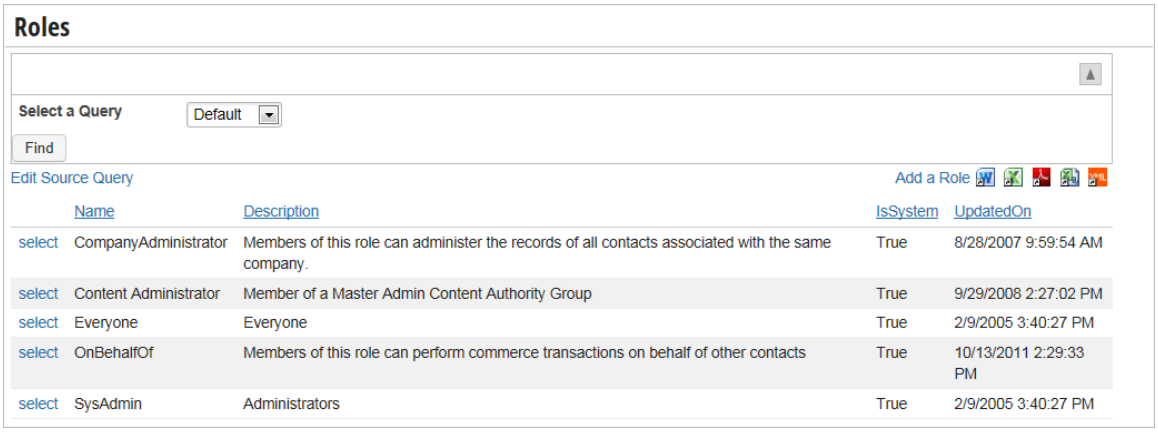
Do the following to add or edit security roles:

1. Go to **Settings > Security administration > Roles**.
2. Click **Add a Role** or select an existing one and enter Name and Description.

**Warning!**

Do not remove a user's **SysAdmin** role without also lowering the **Sys Mgmt** authorization level (see Assign staff access). If the levels and roles do not agree, the system will have access conflicts.

Click to view image




| | Name | Description | IsSystem | UpdatedOn |
|---|---|---|---|---|
| select | CompanyAdministrator | Members of this role can administer the records of all contacts associated with the same company. | True | 8/28/2007 9:59:54 AM |
| select | Content Administrator | Member of a Master Admin Content Authority Group | True | 9/29/2008 2:27:02 PM |
| select | Everyone | Everyone | True | 2/9/2005 3:40:27 PM |
| select | OnBehalfOf | Members of this role can perform commerce transactions on behalf of other contacts | True | 10/13/2011 2:29:33 PM |
| select | SysAdmin | Administrators | True | 2/9/2005 3:40:27 PM |

Company Administrator Role

iMIS staff users can assign the Company Administrator role to any appropriate iMIS contact. A Company Administrator can administer any company, even if they are not on the roster. They can also administer multiple organizations, if desired.

The Company Administrator for an organization can:

- Manage organization profile information
- Manage the organization member list
- View and update account information for organization members
- Bill event registrations to the organization
- Manage billing for the organization

### Managing organization profile information and member list

When Company Administrators view the account page for their organization, they can update account and profile, including the organization name, addresses, and public profile details.

They can also update the organization roster that appears in the profile page. They can remove members from the organization or update a member's role. They can also add new contacts to the roster. They cannot, however, choose an existing iMIS contact to add to the roster.

### Managing organization member information

Company Administrators have the ability to update contact and profile information for members of their organization, including name, title, organization, addresses, and public profile details. They can also view participation information for the contact, such as billing history.

### Bill event registrations

Company Administrators can register members of the organization for events and bill the registrations to the organization, if desired.

### Managing billing for the organization

Company Administrators can make purchases which are billed to the organization, review past orders and invoices, and pay the most recently billed renewal invoice.

When making a purchase, Company Administrators have the option to choose their organization as the Bill To contact for the order. If they choose to pay later, an open invoice will be created which is billed to the organization.

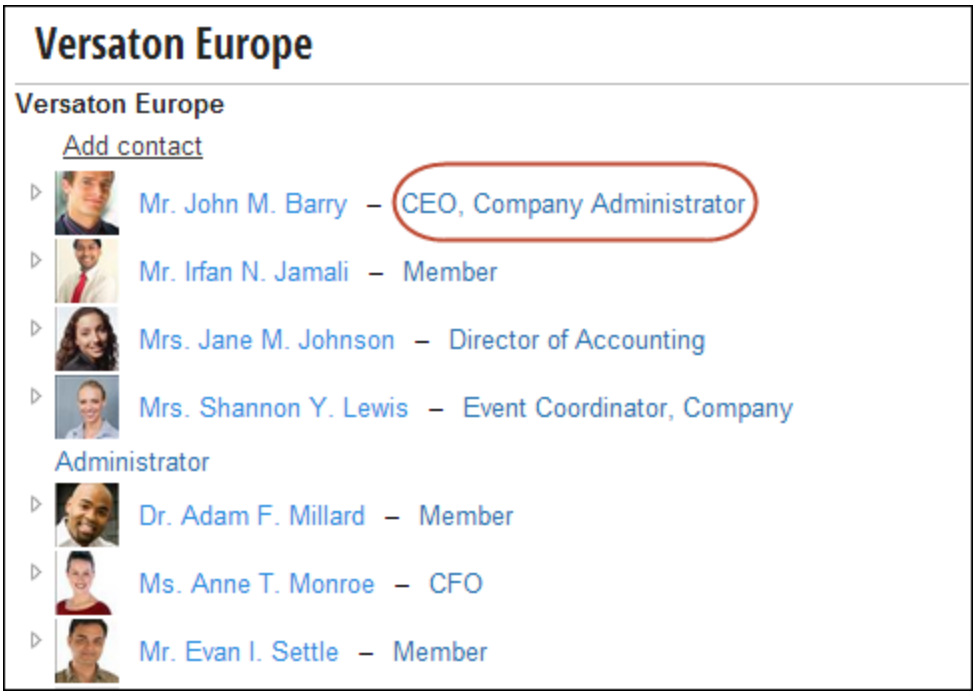
When viewing the organization's account information, the Company Administrator can review past orders and invoices which have been billed to the organization. They can pay invoices billed to the organization and invoices billed to a member of the organization.

For organizations that have membership renewal billings, the Company Administrator can pay for the renewal using the Renew Now button on the organization's account page.

**To assign the Company Administrator role**

A Staff user or an existing Company Administrator can assign a Company Administrator. Do the following to assign the Company Administrator role:

1. Go to account page for an organization and view the list of contacts.
   Click to view image




2. Click the link for the current member's role. The group member detail window is displayed.
3. Click **Add** and select Company Administrator. Save and close.

### Add security groups

Security groups grant specific access to all individuals who are members of the group. The following security groups affect user privileges.

| Group | Description |
|---|---|
| CampaignAdmin | Enables full-control access to the Campaign functionality and its objects |
| CampaignMgr | Enables read/add/edit/delete access to the Campaign functionality, and read/edit access to its objects |
| CampaignUser | Enables read-only access to the Campaign functionality and its objects |
| Certification Admin | Used to send emails to the appropriate contacts when certification enrollees complete program stages |

| | |
|---|---|
| Certification Manager | Used to send emails to the appropriate contacts when certification enrollees complete program stages |
| Certification User | Used to send emails to the appropriate contacts when certification enrollees complete program stages |
| EventUser | Controls security for IQA integration |
| FRUser | Controls security for IQA integration |
| OpportunityAdmin | Enables full-control access to Process Manager and its objects |
| OpportunityCreator | Enables add access to projects in Process Manager, and read/edit/delete access to created projects, but read-only access to projects created by others |
| OpportunityMgr | Enables read/add/edit/delete access to Process Manager, and read/edit access to its objects |
| OpportunityOwners | Enables add access to a project's Owner or Contact group |
| OpportunityUser | Enables read-only access to Process Manager and its objects |
| OrderUser | Controls security for IQA integration |
| Reporting | Enables access to IQA query links |
| RFMAdmin | Enables full-control access to the RFM application and its objects |
| RFMMgr | Enables read/add/edit/delete access to the RFM application, and read/edit access to its objects |
| RFMUser | Enables read-only access to the RFM functionality and its objects |
| SegAdmin | Enables full-control access to the Segmentation functionality and its objects |

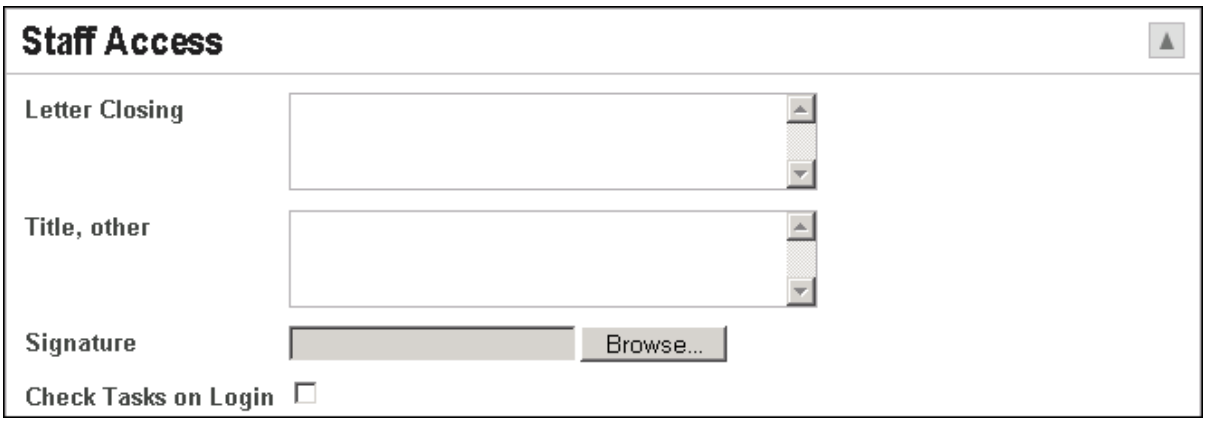
| | |
|---|---|
| SegMgr | Enables read/add/edit/delete access to the Segmentation functionality, and read/edit access to its objects |
| SegUser | Enables read-only access to the Segmentation functionality and its objects |

### Assign staff access

The Staff Access area includes settings for user-specific correspondence and Module Authorization Levels.

> **Note:** By default, this section is collapsed. Simply click on the arrow next to Staff Access to expand this section.

Click to view image




- **Letter Closing** - The text that closes correspondence sent by the user, for example, Sincerely.
- **Title, other** - The user's role to use in correspondence, for example, Certification Specialist.
- **Signature** - An image of the user's signature to use in correspondence. The image may be in one of the following formats. iMIS converts the image into a BMP file before storing it in the database.
- Microsoft Bitmap (BMP)
- Windows Meta File (WMF)
- Graphics Interchange Format (GIF)

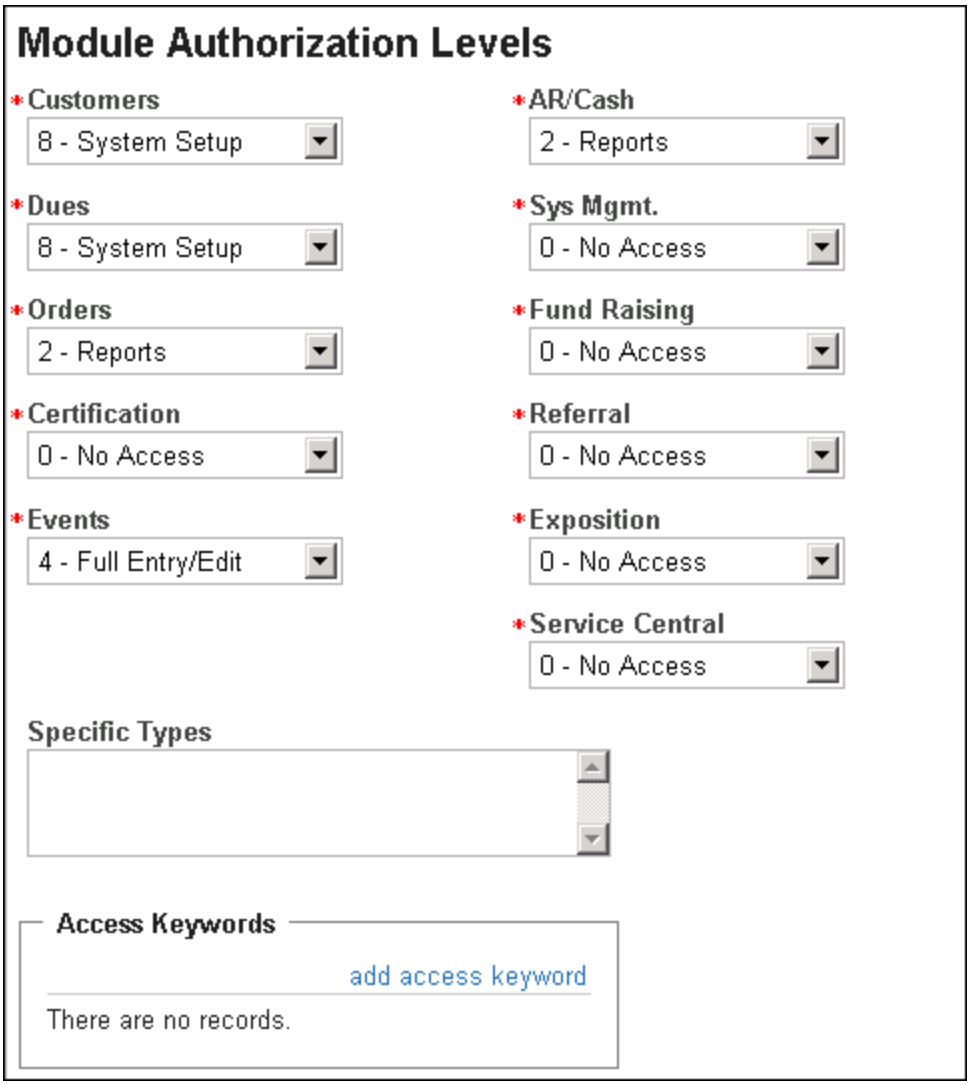
- Portable Network Graphics (PNG)
- JPEG Interchange Format (JPG)
- **Check Tasks On Login** - (iMIS Desktop only) Displays the user's **View activity tasks** window when they first log on. When cleared, displays the standard administrative view instead.

**Module Authorization Levels**

Module authorization levels determine what functionality the user sees in the iMIS Advanced Accounting Console and also affects some web features. The levels are assigned by iMIS area. See authorization access for details.

- **Specific Types** – Controls the customer types that the user can edit in **Customers**. The types listed in this field can be edited by the selected user. For example, if you only want the user to be able to edit records with customer type CM, add CM to the **Specific Types** field. The user will have read-only access to all other records. Separate multiple customer types with spaces or commas.
- **Access Keywords** – Restricts the user from viewing secured windows, tabs, reports, or windows. Separate multiple access keywords with spaces or commas.

Click to view image




### Authorization levels: Staff site

Full and Casual users can access the Staff site based on their authorization levels.

> **Note:** Some functionality in the Staff site will require you to have a license key. Contact ASI for more information.

Authorization levels: Community

| Navigation Item | User Class | Security Set | Level Assign-ment | License Required |
|---|---|---|---|---|
| Dashboard | Full/Casual | All Staff Full Control | | |

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Find contacts | Full/Casual | All Staff Full Control | | |
| Add contact | Full/Casual | All Staff Full Control | | |
| Manage committees | Full/Casual | All Staff Full Control | | Yes |
| Manage chapters | Full/Casual | All Staff Full Control | | |
| Moderate communities | Full/Casual | All Staff Full Control | | Yes |
| Manage my communities preferences | Full/Casual | All Staff Full Control | | Yes |
| Manage communication templates | Full/Casual | All Staff Full Control | | |
| Track campaigns | Full | Campaign Users Full Control | | Yes |
| Define campaigns | Full | Campaign Users Full Control | | Yes |
| Define inserts | Full | Campaign Users Full Control | | Yes |
| Record responses | Full | Campaign Users Full Control | | Yes |
| View Output | Full | Campaign Users Full Control | | Yes |

| Navigation Item | User Class | Security Set | Level Assign-ment | License Required |
|---|---|---|---|---|
| Set up campaign module | Full | Campaign Admins Full Control | | Yes |
| Define segments | Full | Segmentation Users Full Control | | Yes |
| Set up seg-mentation | Full | Segmentation Admins Full Control | | Yes |
| Run RFM ana-lytics | Full | RFM Users Full Con-trol | | Yes |
| Set up RFM | Full | RFM Admins Full Con-trol | | Yes |
| Manage pro-cesses | Full | Opportunity Users Full Control | | Yes |
| Tasks | Full | Opportunity Users Full Control | | Yes |
| Set up processes | Full | Opportunity Admins Full Control | | Yes |

Authorization levels: Fundraising

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Dashboard | Full | All Staff Full Control | Fundraising: 2 - Reports | Yes |
| Find funds | Full/Casual | All Staff Full Control | | Yes |

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Enter multiple gifts | Full | All Staff Full Control | Fundraising: 3 - Limited Entry/Edit | Yes |
| Manage moves | Full/Casual | All Staff Full Control | | Yes |
| Reclaim taxes | Full | All Staff Full Control | | Yes |
| Generate HMRC report | Full | All Staff Full Control | | Yes |
| Process payments | Full | All Staff Full Control | Fundraising: 4 - Full Entry/Edit | Yes |
| Review payment history | Full | All Staff Full Control | Fundraising: 4 - Full Entry/Edit | Yes |
| Payment instructions | Full | All Staff Full Control | Fundraising: 4 - Full Entry/Edit | Yes |
| Import activities | Full | All Staff Full Control | | Yes |
| Map events and gifts | Full | All Staff Full Control | | Yes |
| Set up Friendraising | Full | All Staff Full Control | | Yes |
| Generate expected payments | Full | All Staff Full Control | Fundraising: 4 - Full Entry/Edit | Yes |
| Import payments | Full | All Staff Full Control | Fundraising: 4 - Full Entry/Edit | Yes |

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Import donations | Full | Everyone Full Control | Fundraising: 4 - Full Entry/Edit | Yes |

Authorization levels: Events

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Dashboard | Full | All Staff Full Control | Events: 2 - Reports | |
| Find events | Full/Casual | All Staff Full Control | | |
| Add event | Full | All Staff Full Control | Events: 5 - Table Maintenance | |
| View event calendar | Full/Casual | All Staff Full Control | | |

Authorization levels: Commerce

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Dashboard | Full | All Staff Full Control | Order Entry: 2 - Reports | |
| Find products | Full/Casual | All Staff Full Control | | |
| Add product | Full | All Staff Full Control | Order Entry: 4 - Full Entry/Edit | |
| Manage pro- | Full | All Staff Full | Order Entry: 5 - | |

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| motions | | Control | Table Maintenance | |
| Process renewal payments | Full | All Staff Full Control | Dues: 4 - Full Entry/Edit | Yes |
| Review renewal payments | Full | All Staff Full Control | Dues: 4 - Full Entry/Edit | Yes |
| Payment instructions | Full | All Staff Full Control | Membership: 4 - Full Entry/Edit | Yes |
| View batches | Full | All Staff Full Control | A/R Cash: 2 - Reports | |
| Advanced Accounting Console | Full/Casual | All Staff Full Control | | |

Authorization levels: Certification

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Requirement completions | Full/Casual | All Staff Full Control | | Yes |
| Program completions | Full/Casual | All Staff Full Control | | Yes |
| By program | Full/Casual | All Staff Full Control | | Yes |
| By enrollee | Full/Casual | All Staff Full Control | | Yes |

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Inactive enrollments | Full/Casual | All Staff Full Control | | Yes |
| Certification programs | Full/Casual | All Staff Full Control | | Yes |
| Program components | Full/Casual | All Staff Full Control | | Yes |
| Program groups | Full/Casual | All Staff Full Control | | Yes |
| Experience programs | Full | All Staff Full Control | | Yes |
| Unit types | Full/Casual | All Staff Full Control | | Yes |
| Manage providers | Full/Casual | All Staff Full Control | | Yes |

Authorization levels: Continuum

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Guided Performance Scorecard | Full | Full Staff Full Control | | |
| All reports | Full | Administrators Full Control | | |
| Accounting reports | Full | Reporting Users Full Control | | Yes |

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Contact reports | Full | Reporting Users Full Control | Membership: 2 - Reports | |
| Fundraising reports | Full | Reporting Users Full Control | Fundraising: 2 - Reports | Yes |
| Event reports | Full | Reporting Users Full Control | Events: 2 - Reports | |
| Commerce reports | Full | Reporting Users Full Control | Order Entry: 2 - Reports | |
| Certification reports | Full | Reporting Users Full Control | | |
| Campaign reports | Full | Campaign Users Full Control | | Yes |
| Segmentation reports | Full | Segmentation Users Full Control | | Yes |
| RFM reports | Full | RFM Users Full Control | | Yes |
| Content reports | Full | Administrators Full Control | | |
| Process Manager reports | Full | Opportunity Users Full Control | | Yes |

Authorization levels: RiSE

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Manage sitemaps | Full | Administrators<br>Full Control | | |
| Manage websites | Full | Administrators<br>Full Control | | |
| Manage shortcuts | Full | Administrators<br>Full Control | | |
| Manage content | Full | Administrators<br>Full Control | | |
| View task list | Full | Administrators<br>Full Control | | |
| Manage layouts | Full | Administrators<br>Full Control | | |
| Manage images | Full | Administrators<br>Full Control | | |
| Define tags | Full | Administrators<br>Full Control | | |
| Define tagged list formats | Full | Administrators<br>Full Control | | |
| Publishing servers | Full | Administrators<br>Full Control | | |
| User Defined Fields | Full | Administrators<br>Full Control | | |
| Content Types | Full | Administrators<br>Full Control | | |

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Content Authority Groups | Full | Administrators Full Control | | |
| Intelligent Query Architect | Full | Administrators Full Control | | |
| Business Object Designer | Full | Administrators Full Control | | |
| Process auto-mation | Full | Administrators Full Control | | |
| Document system | Full | Administrators Full Control | | |
| Workflow | Full | Administrators Full Control | | |
| Workflow Item Console | Full | Administrators Full Control | | |
| Monitor processes | Full | Administrators Full Control | | |
| Task viewer | Full | Administrators Full Control | | |

Authorization levels: Settings

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| About iMIS | Full | Administrators Full Control | | |

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Users | Full | Administrators Full Control | | |
| Roles | Full | Administrators Full Control | | |
| Organization | Full | Administrators Full Control | | |
| General | Full | Administrators Full Control | | |
| Contact security | Full | Administrators Full Control | | |
| Account management | Full | Administrators Full Control | | |
| Communication preferences | Full | Administrators Full Control | | |
| Social media | Full | Administrators Full Control | | |
| Communities | Full | Administrators Full Control | | |
| General | Full | Administrators Full Control | | |
| Payment method sets | Full | Administrators Full Control | | |
| Automatic payment gateways | Full | Administrators Full Control | Order Entry: 5 - Table Maintenance | Yes |

| Navigation Item | User Class | Security Set | Level Assignment | License Required |
|---|---|---|---|---|
| Quick setup | Full | Administrators Full Control | | |
| Page builder configuration | Full | Administrators Full Control | | |
| Search configuration | Full | Administrators Full Control | | |
| Workflow configuration | Full | Administrators Full Control | | |
| General | Full | Administrators Full Control | | Yes |
| Translation cultures | Full | Administrators Full Control | | Yes |
| User defined tables | Full | Administrators Full Control | | |
| Update iMIS | Full | Administrators Full Control | | |
| Package installer | Full | Administrators Full Control | | |
| Advanced email | Full | Administrators Full Control | | Yes |

### Tips and troubleshooting

Following is information to help troubleshoot logon issues.

### Conflicts from shared Windows logins

iMIS employs the ASP.NET login controls and uses HTTP cookies for state information. If two different iMIS users share the same Microsoft Windows logon information on the same client system, iMIS features that use cookie data may appear to confuse one user with the other. To avoid this problem, always ensure that every iMIS user has a unique Windows user name and password.

### Authorization persistence: web clients

By default, authentication record authorization is persistent for web users. To disable this option, edit the **Web.config** file used for the iMIS application. By contrast, iMIS Advanced Accounting Console users must always sign in and be reauthorized each time.

### Authorization changes: locating and disabling

By default, users are allowed to change their password, but not their user name. To allow user name changes, edit the content record that contains the Change Logon Password content item and select the checkbox **Allow username change**. The option to change passwords can be enabled or disabled in the same way.

- All users (**Casual**, **Public**, and **Full**) can change their user name and password through the **My Account** page, the setting option is enabled.
- **Full** users who belong to the **SysAdmin** role can change the user name and password for other users in the **Staff** site. (**Settings > Security administration > Users**).

### Organization settings

- **The full name of the organization that owns the site**
- Enter the name to appear in the title tag of the front page of your sites.
- **The abbreviated name of the organization that owns the site**
- Enter an abbreviated name if desired. You may leave this field blank.
- **The default email address for the site**
- Enter the email address to receive all email by default when errors occur in the site. Typically, this email address is for the webmaster and the primary contact for the organization. This email address also receives the order email confirmation when a contact makes a purchase but does not have an email address listed in the **Personal Details** section of their account page.

> **Note:** When you change the default email address for the site, it is a global change that updates many of the settings in iMIS Desktop, including the default address set up at **Desktop > System Setup > Set up web components > Quick setup**.

- **The default Customer Type to use when creating new customers online**
- (Required) Specifies the default Member Type to use when creating a new iMIS contact record for anonymous users who register themselves from your iMIS web site.
- **The default Customer Type to use when creating new organizations online**
- Specifies the default Member Type to use when creating a new iMIS contact record for non-individual entities. This relates to creating non-individual accounts in the Web view (see "Creating non-individual accounts in Web view"), for Full and Casual users to enter new accounts.
- **The default Customer Type for event guests added by members**
- Specifies the default Customer Type to use when creating new iMIS contact records for event guests of registered members. If you do not define the type, the new contacts will be assigned the system default Customer Type.
- **The default Customer Type for event guests added by non-members**
- Specifies the default Customer Type to use when creating new iMIS contact records for event guests registered by individuals who are not members of your organization. If you do not define the type, the new contacts will be assigned the system default Customer Type.

## Contacts

Managing a contact list is easy for Staff and Company Administrators, or you can empower your users to self-manage their group memberships. To do this, simply enable the feature which permits automatic additions to the list when users join a group or organization.

### General Contact Settings

In the **Staff** site, go to **Settings > Contacts > General**.

Set the default country (SystemDefaultCountry)
Determines the system default country. The drop-down is a list of hundreds of available countries to select from.

Allow all users to link to an organization checkbox (AllowUsersToLinkToOrg)

- When selected:
- **All users**, including **Public users**, are able to add themselves directly to groups without approval from an administrator.
- When not selected:
- **Public users** are able to enter an organization during registration, but this does not add them to the organization group or organization roster.
- **Company administrators** can add contacts to the list for the organization (or group) they moderate or administer.
- **Staff users** (Full, Casual, or with administrative privileges) can add contacts to groups or organizations.

Users who can bill to their organization (AllowAllUsersToBillToOrg)
A Company Administrator can bill to their organization; however, you can extend that functionality to all users, if desired.

- **Company administrators only** is set by default. If this option is selected, only a Company Administrator or Staff user acting "On Behalf Of" a user can select their organization as the Bill To contact.
- **All users** enables all users, including public users, the ability to select their organization as the **Bill To** contact. When this option is selected, the **Bill To** payment detail in the cart will default to Myself with the organization also listed as an option.
- **All users – organization selected by default** allows all users to select their organization as the **Bill To** contact. When this option is selected, the **Bill To** payment detail in the cart will default to the user's organization with Myself also listed as an option.

> **Warning!**
>
> Do not allow all users to link to an organization if you also allow users to bill an organization. This would allow anyone to create an account and link and bill to any organization.

Regular expression to validate email addresses (Contact.Email.RegularExpression)

The regular expression rule is used to determine if the email address a user enters contains valid characters as specified in the regular expression syntax. You can modify the regular expression to specify your own rule. The default regular expression, `\w+([-+!$%&*/=?{|}.']\w+)*@\w+([-.]\w+)*\.\w+([-.]\w+)*`, allows email addresses to contain specific characters.

*Rules:*

- A "word character" is any alphabet or numeric characters and includes underscores (_).
- The email address must begin with a word or numeric character, or an underscore, any of which can be entered one or more times.
- Specific special characters (`- -+!$%&*/=?{|}.' -`) are allowed if they are followed by at least one word character. Special characters are not required.
- The at sign (@) is required.
- Word characters are allowed, but not required.
- Hyphen (-) and period (.) are allowed after the “@”. If they are used, they must be followed by word characters.
- The period (.) is required.

> **Note:** This default expression does not allow foreign characters.

Examples of email addresses regarded as valid when using the default expression:

- niceandsimple@example.com
- very.common@example.com
- a.little.lengthy.but.fine@dept.example.com
- disposable.style.email.with+symbol@example.com
- other.email-with-dash@example.com

Examples of email addresses regarded as invalid when using the default expression:

- user@[IPv6:2001:db8:1ff::a0b:dbd0]
- "much.more unusual"@example.com
- "very.unusual.@.unusual.com"@example.com
- üñîçøðé@example.com
- üñîçøðé@üñîçøðé.com

### Contact Security

In the **Staff** site, go to **Settings > Contacts > Contact Security**.

These system settings allow for granular security settings when viewing contact records. This is accomplished by providing separate security settings for three different user types in iMIS. These settings provide system-wide permission to view the public profile information of other users.

When making changes to these user access queries, it is vital that you update the search index for your updates to take effect. For more information on rebuilding your search index, please see Deleting community posts and rebuilding the search index.

For example, the AllUsersAccessQuery returns only contact A. AuthenticatedUsersAccessQuery returns only contact B. MemberAccessQuery returns only contact C. When an unauthenticated user browses the site, they will only get access to contact A. An authenticated non-member will have access to A and B. An authenticated member will have access to all three contacts.

> **Note:** When creating or editing an Online User Access query, you must use the **NetContact** business object and have **Contact Key and iMIS ID** properties in the display tab. It is recommended to have an iMIS ID property in the filters tab as well. iMIS provides example queries that you can copy and adjust to fit your organization's needs:

- $/Samples/Security/UserAccess/Contacts available to all users
- $/Samples/Security/UserAccess/Contacts available to members

Visitors to your site might receive an error if they click on the name link of a contact they don't have permission to view. If your customers report seeing these messages frequently, you may want to review your queries in these fields to loosen the restrictions.

> **Note:** After you select a query to determine your online user access, you can edit it directly from this page by clicking **Edit source query**.

All website visitors can view contacts included in this query. (AllUsersAccessQuery)

Create or edit a query for this field to determine which contacts' public profiles are visible to visitors who have not logged in.

**Warning!**

If this field is left blank, visitors will not be able to see the public profiles of any of your iMIS contacts and an error message will be displayed.

Authenticated users can view contacts included in this query. (Authentic-atedUsersAccessQuery)
Create or edit a query for this field to determine which public profiles all logged-in users can view.

**Warning!**

If this field is left blank, logged-in non-members will effectively have the same level of access as unauthenticated users.

Members can view contacts included in this query. (MemberAccessQuery)
Create or edit a query for this field to determine which public profiles members of your organization are allowed to view.

**Warning!**

If this field is left blank, members will effectively have the same level of access as logged-in non-member user.

### Account management

The account management settings allow you to tailor the account notification messages that display when an account is created, a password is changed, or a sign-in attempt fails. You can also set the address from which email notifications of password resets and username requests are sent and the text contained in those emails.

In the Staff site, go to **Settings > Contacts > Account management**.

Password requirements text.(PasswordRequirementsText)
Specifies the message that is displayed when an account is created or a password is changed. The default message is "**The password must be at least {0} characters long and contain both letters and numbers.**" Two variables can be added to the message: {0} or {1}. The {0} variable refers to the minimum password length allowed and the {1} variable refers to the minimum non-alphanumeric characters allowed.

The values for these variables are set in the **web.config** file in the **CustomizedProvider** line. The default for the variable {0} is 7 (**minRequiredPasswordLength**), which is the minimum length required for PCI compliance. The default for the variable {1} is 0 (**minRequiredNonalphanumericCharcters**). Non-alphanumeric characters are not necessary for PCI compliance, so setting a minimum value for variable {1} is optional. However, requiring non-alphanumeric characters increases password security.

Default message if sign in fails. (SignInFailedMessageSystemText)
Specifies the message that is displayed when a sign-in attempt fails. The default message is "**The username or password you entered is incorrect**." If you would like to change this message, edit the **Contact Sign In** content item directly.

The email address from which password resets and username requests should be sent. (LogonChangesEmailFrom)
Enter the email address where email notifications will be sent.

The body of the email sent to a user when they fill out the "Forgot my username" form. (LogonInformationRequestMessage)
The **LogonInformationRequestMessage** is sent to users who have submitted the **Forgot my username** form. The default message is "** We received a request for the username associated with this email address. Based on the information provided, your username is: [UserId] Please click the link below to return to our website and sign in: [LogonUrl] If clicking the link does not work, you can copy and paste it into your browser's address window. .**"

The body of the email sent to a user when they fill out the "Forgot my password" form. (PasswordResetRequestMessage)

The **PasswordResetRequestMessage** is sent to users who have submitted the Forgot my password form. The default message is "** Password reset request for username [UserId] We received a request to reset the password for the user-name referenced above. If you made this request, please click the link shown below to reset your password. If you did not request to have your password reset, you can safely ignore this email. Please click the link below to reset your pass-word: [LogonUrl] If clicking on the link does not work, you can copy and paste the link into your browser's address window. .**"

You can use the following variables in the **LogonInformationRequestMessage** and the **PasswordResetRequestMessage**. When an email is sent, the variables are replaced with the appropriate values.

- [UserId]
- [ContactId]
- [Email]
- [LogonUrl]

Use HTML or CSS to modify the display of the emails.

**Tips**

- HTML and inline styles work best in emails, because some email clients ignore externally linked CSS files. For example, the following inline style turns the header text blue and changes the font:

```
<h1 style="color:#0000FF;font-family:Georgia,serif;">Heading text</h1>
```

- Use full paths to images, not relative paths. For example:

```
<img src="http://www.servername.com/images/logo.gif" alt="Company logo" />
```

- Test your email messages in different email clients to make sure everything looks the way you want.

**Communication preferences**

Staff users can configure the types of communications that can be sent by your organization. This enables you to enforce the preferences of members who do not want to receive certain types of communications.

In the **Staff** site, go to **Settings > Contacts > Communication preferences**. You can add a new communication type or edit a selected communication type.

To add a new communication type:

1. Click **Add new**.
2. Enter the name of the new communication type.
3. (optional) Provide a description of the communication type.
4. Define the default subscription properties of the communication type:
   - **Subscribe by default (Opt-out)** – Users will receive communications until they choose explicitly to no longer receive communications.
   - **Users must subscribe (Opt-in)** – Users will not receive communications unless they subscribe.
5. Select the status of the communication type:
   - **Active** -- the subscription properties for the communication type are applied.
   - **Inactive** -- the subscription properties for the communication type are not applied. The inactive communication status cannot be assigned to communication templates or documents.
6. Save.

> **Note:** System-defined communication types (Primary, Shipping, and Billing) cannot be edited.

### Social media

In the Staff site, go to **Settings > Contacts > Social media** to integrate your websites with a social medial network.

Enabling signing in with a social media network

1. In the Staff site, go to **Settings > Contacts > Social media**.
2. In the **Authorization Providers** table, add a new provider.

- Specify the **Provider**.

> **Note:** Facebook is the only authorization provider that you can use with iMIS.

- Enter the **App Id** and **App Secret** you received from the **Provider** when you created your app. See Creating an Authorization Provider App for more information.
- Enable the provider to display a button in the Contact Sign In content item that allows website users to sign in with a social media account from the provider. Enabling a provider also allows:
  - You to configure any Contact Account Creator on your site to allow users to sign up with a social media account.
  - Users, when updating their profile photo in the Contact Profile Picture content item, to use their Facebook profile photo on your website (if Facebook is the enabled provider).

3. (optional) To prompt users to link their social media and iMIS accounts the first time they attempt to sign in with a social media account, confirm that **Prompt to link social media account to an existing or new iMIS account** is selected. An additional window displays the first time users sign in with a social media account, prompting them to enter their iMIS username and password. A user can also choose to use their Facebook profile photo as their profile photo on your website during the linking process.

> **Note:** If you do not prompt users to link their social media and iMIS accounts, a new contact is created and linked. Since users do not see a visual prompt to link to an existing iMIS account, there is an increased chance for creating duplicate contacts when users use different email addresses for the social media and iMIS accounts. However, if a user uses their Facebook email with their iMIS account, they will still be prompted to link to the existing account instead of creating a new account.

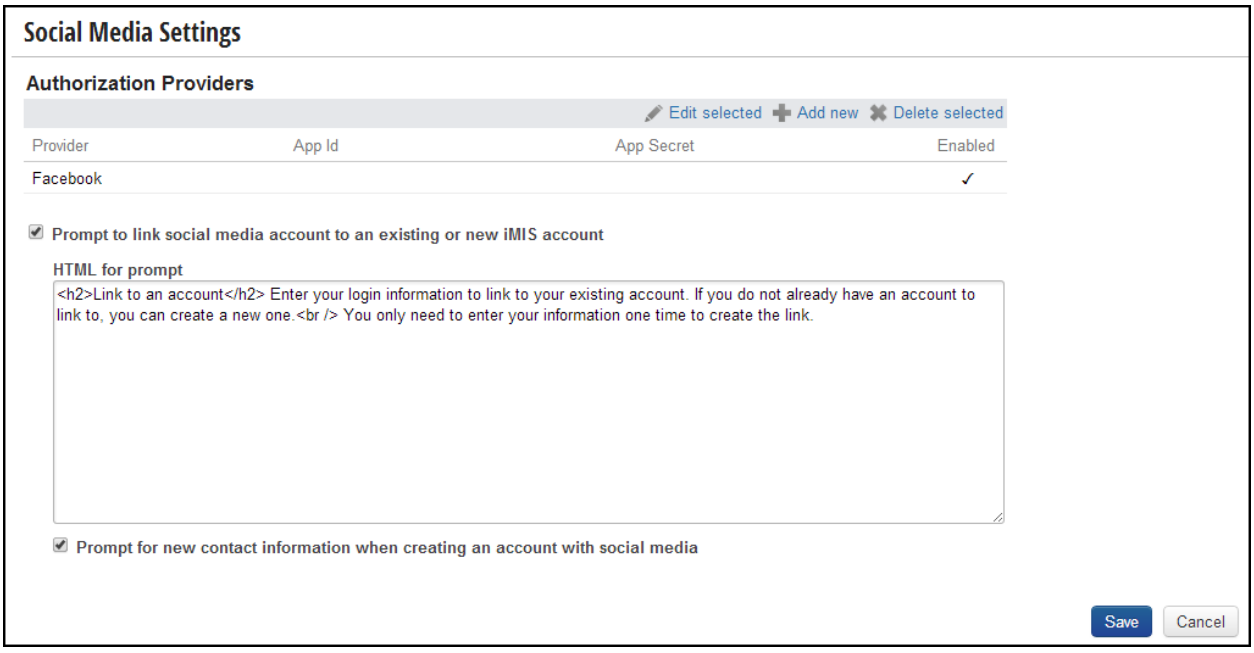
- (optional) If you prompt users to link their social media and iMIS accounts, you can tailor the **HTML for prompt** or use the default message.

4. (optional) If you want users who choose to link to a new iMIS account to enter additional contact information in a Contact Account Creator content item, select **Prompt for new contact information when creating an account with social media**.
5. 

> **Note:** When you prompt users to enter new contact information when creating an account with social media, users are directed to the content at the **CreateAccountSocialMedia** shortcut. This content contains a Contact Account Creator out-of-the box, but it can be modified. The Contact Account Creator in this content, however, must always be configured to include an option to create an account.

For more information, see Signing in to your website using a social media account.

Click to view image




Creating an authorization provider app

To obtain an **App Id** and an **App Secret** from Facebook, complete the following steps:

1. Register as a Facebook developer.
   If you are already a member of Facebook, you do not need to create a new account and can proceed to step 2.
2. Create a new app.

3. Enter the requested information to create the app.

   > **Note:** You are automatically assigned an **App ID** and **App Secret**. These items are entered as **Social Media Settings** in iMIS.

4. **Add platform**, enter the URL for your website, and save. The mobile site UTL is optional.
5. In the **Advanced Settings**, enable **Client OAuth Login** and save.
6. In the **App Details**, enable **Website** as a listed platform, configure the App Center for **email** and **user_location** as permissions, and save.
7. In **Roles**, add test users and save.

   > **Note:** You need test users because regular Facebook users cannot use your app until it is officially live.

   You can find your **App Id** and **App Secret** in the dashboard or basic settings.

### Communities

Community settings allow you to customize Community Notification and Community Report Inappropriate or Offensive email templates. You can design the email with HTML or CSS, modify the subject and body text, and use variables in the subject line and body. For the Community Report Inappropriate or Offensive emails, you can also add CC and BCC email addresses.

Each template has a set of variables that you can use in the email's subject line and body. When an email is sent, the variables are replaced with the appropriate values.

In the Staff site, go to **Settings > Community**:

**The template used for the subject line of the Community Notification emails. (CommunityNotificationSubjectTemplate)**
Specify the subject line of **Community Notification** emails. The default template is "**Subscription update for [Title].**"

This subject line template can use the following variables:

- [Title]
- [NotificationLink]

- [PreferencesLink]

**The template used for the body of Community Notification emails. (CommunityNotificationBodyTemplate)**

Create the template used for **Community Notification** emails. The default template is "**To view the item, navigate to <a href="[NotificationLink]">[NotificationLink]</a>.**" You can use HTML, CSS, and a predetermined set of variables.

This email template can use the following variables:

- [Title]
- [NotificationLink]
- [PreferencesLink]

**The template used for the footer of Community Notification emails. (CommunityNotificationFooterTemplate)**

Specify the footer of **Community Notification** emails. The default template is "**<hr /> This is an automatic message. To manage your subscriptions, navigate to <a href="[PreferencesLink]">[PreferencesLink]</a> .**"

This footer template can use the following variables:

- [Title]
- [NotificationLink]
- [PreferencesLink]

**Email address to CC on Community Report Inappropriate or Offensive emails (ReportInappropriateOffensiveCCField)**

Enter an email address to copy on the **Community Report Inappropriate or Offensive** emails.

**Email address to BCC on Community Report Inappropriate or Offensive emails (ReportInappropriateOffensiveBCCField)**

Enter an email address to blind copy on the **Community Report Inappropriate or Offensive** emails.

**The template used for the subject line of Community Report Inappropriate or Offensive emails. (ReportInappropriateOffensiveSubjectTemplate)**

Specify the subject line of **Community Report Inappropriate or Offensive** emails. The default template is "**Content reported as inappropriate or offensive.**"

**The template used for the body of Community Report Inappropriate or Offensive emails. (ReportInappropriateOffensiveBodyTemplate)**
Create the template used for **Community Report Inappropriate or Offensive** emails. The default template is "** The user [FullName] ([ID]) believes the item [Title] is inappropriate or offensive:<br />[Explanation] The item's full text is:<br />[Title]<br /><br />[Body] To administer this content, navigate to <a href="[Link]">[Link]</a>. .**" You can use HTML, CSS, and a predetermined set of variables.

This email template can use the following variables:

- [FullName]
- [ID]
- [Title]
- [Explanation]
- [Title]
- [Body]
- [Link]

**Tips**:

- HTML and inline styles work best in emails, because some email clients ignore externally linked CSS files. For example, the following inline style turns the header text blue and changes the font:

```
<h1 style="color:#0000FF;font-family:Georgia,serif;">Heading text</h1>
```

- Use full paths to images, not relative paths. For example:

```
<img src="http://www.servername.com/images/logo.gif" alt="Company logo" />
```

- Test your email messages in different email clients to make sure everything looks the way you want.

## Commerce

> **Note:** The documentation might not match your product. Your organization can customize iMIS, license fewer features, or limit your security access, all of which affect the fields that you see in the product interface. Windows and fields that are clearly defined in the product interface itself, or that should otherwise be intuitive, are not described in the documentation.

In the Staff site, go to **Settings > Commerce** to define site-wide settings for commerce functionality.

### General commerce settings

In the Staff site, go to **Settings > Commerce > General** to specify settings such as the order confirmation template, default currency code, and batch mode.

#### Communication Template to use for Order Confirmations (OrderConfirmationTemplate)

Specify the communication template used to send order confirmation emails. You can edit the default template or define a new one.

#### Default currency code used by RiSE components. This must be the three character ISO-4217 code. (DefaultCurrencyCode)

Define the default currency code that will be used to pass the correct currency values to PayPal Express, Payflow Pro, and TNSPay. The currency code must be the three-character ISO-4217 code.

#### Batch mode for staff web transactions (BatchMode)

Specify how staff web transactions are placed in batches. By default, all staff transactions are placed in the same batch as public transactions. You can also choose to create separate batches for staff and public transactions or to create an individual batch for each staff user per day. See Configuring the batch mode for staff web transactions for more information.

#### Automatic payments for billing renewals (Asi.Billing.AllowAutomaticPayments)

This setting is disabled by default. To enable automatic payments for membership renewals, select the desired behavior: Allow users to enable, Enabled by default, or Required.

> **Note:** In order to use automatic payments, you must have a license key for AutoPay. Contact ASI for more information.

### Recurring Donations (Asi.Fundraising.AllowRecurringDonations)

This setting is disabled by default. To enable automatic payments for recurring donations, select the desired behavior: Allow users to enable or Enabled by default.

> **Note:** In order to use automatic payments, you must have a license key for AutoPay. Contact ASI for more information.

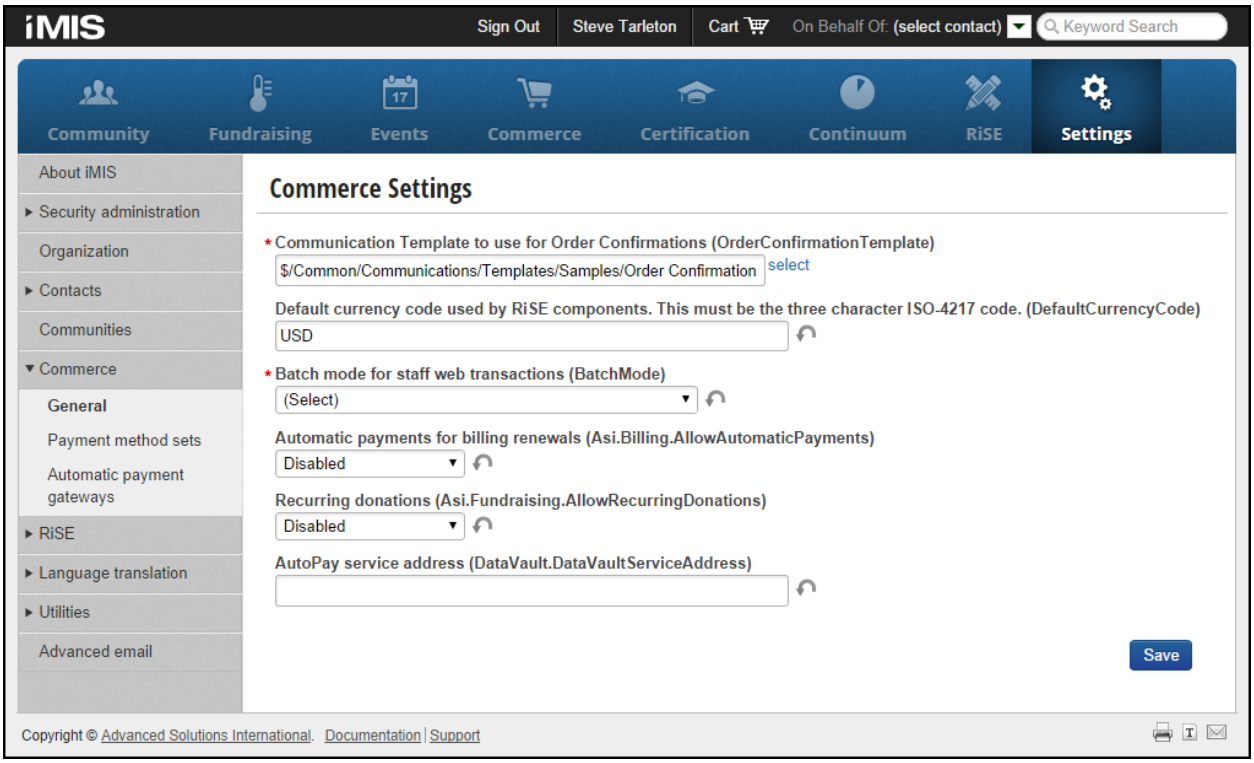
### AutoPay service address (DataVault.DataVaultServiceAddress)

This is the address to the tokenization engine. You must have access to a tokenization engine in order to perform recurring transactions. Enter the AutoPay service address in the following format:

```
https://localhost/DataVault0
```

Where `localhost` is the name of a server and `DataVault0` is the website alias.

> **Note:** Contact ASI Hosting for more information about an iMIS-hosted tokenization engine.




### Payment method sets

In the Staff site, go to **Settings > Commerce > Payment method sets** to define collections of allowable payment methods for a particular commerce transaction process. For example, you might want to present only a few choices of payment methods to online users, but allow the full array of options for a Staff user.

1. Click **select** to select a payment method set to edit.
2. Click **Add new** to add a new payment method to a method set. You can also highlight and edit or delete an existing method.
3. Enter or edit the information for the payment method:

a. Enter the **Display Name** for this method.
b. Select the payment method type, for example, **Cash**, **Debit** or **VISA**.
c. Click **Default** to display this payment method as the default choice.
d. Save this payment method, and then save the payment method set.

### Automatic payment gateways

To use AutoPay, you must initially configure the Staff site for automatic membership renewals and recurring donations. See Automatic Membership Renewals and Recurring

donations for more information.

1. In the Staff site, go to **Settings > Commerce > Automatic payment gateways**.
2. Select **Payflow** from the **Gateway type** dropdown.
3. Enter your gateway information and click **Save**:

- **Payflow Pro**
- **Organization name** – Your iMIS organization name.
- **Default for payment type** – Select the default payment type for this gateway:
- **(None)**
- **Credit Cards**
- **Gateway name** – The selected gateway.
- **Partner** – The Payflow Pro partner name that was obtained when you created your account.
- **Vendor** – The Payflow Pro user name.
- **User** – The Payflow Pro user name.
- **Password** – The password you were given by the gateway provider during the sign-up process.
- **Host address** – The host address for the PayflowPro Gateway.

## RiSE settings

Review the following setup pages, modifying the default values as desired:

### Quick setup

In the **Staff** site, go to **Settings > RiSE > Quick setup**:

These fields configure the basic global behavior of RiSE Content.

> **Note:** All of these fields are duplicated in the other windows beneath Settings > RiSE > Quick setup. The presence of those fields in the default Quick setup window is meant to ensure that at least these very important basic configuration properties are set.

### Tips

- The default text in several of these setup fields includes text enclosed in brackets, such as [WebsiteName], [PageLinkURL], and so on. These are system variables that are

replaced dynamically with context-specific information. You can remove them entirely if you don't want to use them, but you must not change them in any way if you plan to use them, or you'll get unexpected results.

- If you are getting unexpected results in the things that these setup fields create (such as boilerplate text in "Email a friend" emails), the cause might be that some of these system variables were changed slightly. You can use the Reset to default value button to restore the default text (and therefore the original system variables).

**The path where the Image Manager should store images used in RiSE. The path should begin with ~/ and be a relative path from the website's root folder (CM.ImagePath)**

- Specifies the relative path of the file system folder on the iMIS application server and external web servers where images uploaded for use by CM should be stored. The root (~) of the path is the same as the physical path for the iMIS application in IIS (...\ASI\iMIS\Net by default). The default value for this field is ~/images.

**The maximum number of results returned for a search. (SE.MaximumResults)**

- Specifies the maximum number of search results that the system will display.

**The number of results to show per page (SE.ResultsPerPage)**

- Specifies how many search results to display per page. If there is more than one page of search results, links appear at the bottom of each page that enable navigation among the result pages.

**Any content record with a Cache duration of "Default" will use this value. (CM.CacheDurationDefault)**

- Specifies the default system setting that will be used if Default is selected in the Cache duration|topic= Configuration options: content records field for a content record (Properties tab). Any content record with a Cache duration of "Default" will use this value.

**The confirmation message displayed after sending Email a Friend emails. (CM.EmailAFriendConfirmationMessage)**

Specifies the text of the confirmation message displayed to the user after an "email a friend" email has been successfully sent by the system.

**The subject line used for Email a Friend emails. (CM.EmailAFriendSubject)**

Specifies the template text of the subject line used in "email a friend" emails. You can use the same variables here as for the CM.EmailAFriendTemplate field.

**The template used for the body of Email a Friend emails. (CM.E-mailAFriendTemplate)**

Specifies the template for the email sent by the "email a friend" feature. The following variables can be used in the template:

- [WebsiteName] - The name of the website.
- [WebsiteURL] - The URL of the website.
- [PageLinkTitle] - The title of the content record.
- [PageLinkURL] - The URL of the content record
- [SendToEmailAddress] - The user-supplied value of the Send this page to field on the Email this page to a friend window.
- [SenderMessage] - The user-supplied value of the Personal message field on the Email this page to a friend window.
- [SenderEmailAddress] - The user-supplied value of the Your email address field on the Email this page to a friend window.

**Site builder configuration**

In the **Staff** site, go to **Settings > RiSE > Site builder configuration**.

This field configures the global behavior of the Site Builder tool.

- **Document System path to the folder containing the website objects managed by Site Designer (ND.WebsiteRootFolder)**
- Specifies the full Document System path to the folder that contains all the CM definition objects used by the Site Designer tool.

**Page builder configuration**

In the **Staff** site, go to **Settings > RiSE > Page builder configuration**.

These fields configure the global behavior of the Page Builder tool.

**Tips**

The default text in several of these setup fields includes text enclosed in brackets, such as [WebsiteName], [PageLinkURL], and so on. These are system variables that are

replaced dynamically with context-specific information. You can remove them entirely if you don't want to use them, but you must not change them in any way if you plan to use them, or you'll get unexpected results.

If you are getting unexpected results in the things that these setup fields create (such as text in "Email a friend" emails), the cause might be that some of these system variables were changed slightly. You can use the Reset to default value button to restore the default text (and therefore the original system variables).

### CM.ImagePath

Specifies the relative path of the file system folder on the iMIS application server and external web servers where images uploaded for use by CM should be stored. The root (~) of the path is the same as the physical path for the iMIS application in IIS (C:\Program Files\ASI\iMIS\Net by default). The default value for this field is ~/images.

### CM.ShowFileTypes

Specifies which file extensions should prefixed before the content record's Title in the rendered results of a ContentTaggedList content item, if the content record contains a ContentFile content item that will download a file with the listed extension.

### CM.UseImportantUntilDate

Enables the behavior of the Mark as important until field in content records. When cleared, disables the field's behavior.

### CM.PublishingMaxNumOfAttempts

Specifies how many times each publishing service will attempt to process a system publishing request for a content record before it flags the request as failed. This prevents overconsumption of system resources if there is a connection issue or other issue that is preventing the publishing service from successfully processing the request.

### CM.SendEmailOnApprovalRequest

Sends an email to all people who have Content Approver permissions in at least one content authority group (CAG) to which they belong whenever anyone submits a content record publishing request. When cleared, disables email notification of publishing requests.

### CM.CacheDurationDefault

Specifies the default system setting that will be used if Default is selected in the Cache duration|topic= Configuration options: content records field for a content record (Properties tab). Any content record with a Cache duration of "Default" will use this value.

## Email A Friend

### CM.EmailAFriendSubject

Specifies the template text of the subject line used in "email a friend" emails. You can use the same variables here as for the CM.EmailAFriendTemplate field.

### CM.EmailAFriendTemplate

Specifies the template for the email sent by the "email a friend" feature. The following variables can be used in the template:

[WebsiteName] - The name of the website.

[WebsiteURL] - The URL of the website.

[PageLinkTitle] - The title of the content record.

[PageLinkURL] - The URL of the content record

[SendToEmailAddress] - The user-supplied value of the Send this page to field on the Email this page to a friend window.

[SenderMessage] - The user-supplied value of the Personal message field on the Email this page to a friend window.

[SenderEmailAddress] - The user-supplied value of the Your email address field on the Email this page to a friend window.

### CM.EmailAFriendConfirmationMessage

Specifies the text of the confirmation message displayed to the user after an "email a friend" email has been successfully sent by the system.

## Search configuration

In the **Staff** site, go to **Settings > RiSE > Search configuration**.

These fields configure the global behavior of the search functionality.

### SE.NoResultsMessage

Displays the message presented to the user when no results matching the search criteria were found.

### SE.MaximumResults

Specifies the maximum number of search results that the system will display.

### SE.ExceedMaxResultsMessage

Specifies the search exceeded the maximum number of results set in SE.MaximumResults.

### SE.ResultsPerPage

Specifies how many search results to display per page. If there is more than one page of search results, links appear at the bottom of each page that enable navigation among the result pages.

### SE.ProblemMessage

Specifies what should be displayed to users when the search engine has a problem trying to perform the search. (This is not the same as when a search finds no results.) Adding the string {0} in this field passes through the system message for the actual error.

### SE.DisplayShowKey

Displays a graphic icon shaped like a key next to every item in the search results list that is visible only to members of your organization. When cleared, no "key" icon is displayed even if the item is visible only to members.

Only users who are logged on to the website, and whose iMIS user record is associated with an iMIS contact record that is assigned a member type, will see this icon. For a content record to trigger this icon in search results, in the Properties section of the content record, the Content is restricted to members checkbox must be selected.

### SE.UseAdvancedRelevancy

When enabled, uses the variables SE.SearchKeywordHint, SE.SearchTitleHint, SE.SearchDescriptionHint, and SE.SearchBodyHint to score search results.

### SE.SearchBodyHint

Specifies the search relevancy weighting given to results found in the body of the rendered content record (all the content item in the content record). The relevancy weighting for title, description, keywords, and body does not need to total 100. Instead, these weightings are both cumulative and relative to each other.

### SE.SearchDescriptionHint

Specifies the search relevancy weighting given to results found in the content record's Description/Summary field. The relevancy weighting for title, description, keywords, and body does not need to total 100. Instead, these weightings are both cumulative and relative to each other.

### SE.SearchKeywordHint

Specifies the search relevancy weighting given to results found in the content record's Keywords/Metatags field. The relevancy weighting for title, description, keywords, and body does not need to total 100. Instead, these weightings are both cumulative and relative to each other.

### SE.SearchTitleHint

Specifies the search relevancy weighting given to results found in the content record's Title field. The relevancy weighting for title, description, keywords, and body does not need to total 100. Instead, these weightings are both cumulative and relative to each other.

## Workflow configuration

> **Note:** In the RiSE Workflow Settings window, be sure to change the default values of the ND.ExpirationEmailFromAddr and CM.ExpirationEmailFromAddr fields to the email address of a person in your organization.

## Troubleshooting

- You must be a member of the iMIS SysAdmin security role to access the Set up content management features.

These fields configure the global behavior of content authoring workflow. By default, these fields are found in the following locations:

In the **Staff** site, go to **Settings > RiSE > Workflow configuration**.

**Tips**

- In the following fields that specify the variables Individual.FirstName and Individual.LastName, you can use any property from the Individual business object as long as you can express it with the format Individual.[property].

**ND.ExpirationWarningDays1**
Specifies the number of days before a navigation item has expired to send the first expiration warning email (ND.ExpirationWarningText). This value must be larger than the value specified for ND.ExpirationWarningDays2.

**ND.ExpirationWarningDays2**
Specifies the number of days before a navigation item has expired to send the second expiration warning email (ND.ExpirationWarningText). This value must be smaller than the value specified for ND.ExpirationWarningDays1.

**ND.FinalExpirationNoticeDays**
Specifies the number of days after a navigation item has expired to send the additional expiration notice email (ND.AddExpNoticeText).

**ND.ExpirationEmailFromAddr (Required)**
Specifies the email address from which emails are sent before or after a navigation item expires.

**ND.ExpirationSubjectText (Required)**
Specifies the text that appears as in the subject field of all navigation item expiration emails. You can use the [Individual.FirstName] and [Individual.LastName] variables to personalize the text with the name of the email recipient.

**ND.ExpirationOpeningText**
Specifies the text that appears as the opening paragraph in the body of all navigation item expiration emails. You can use the [Individual.FirstName] and [Individual.LastName]

variables to personalize the text with the name of the email recipient.

### ND.ExpirationWarningText (Required)

Specifies the text that appears as the main body of the first and second expiration warning emails that is sent n days before a navigation item has expired. The value of n is specified in ND.ExpirationWarningDays1 and ND.ExpirationWarningDays2. You can insert the variable [ExpireDays] to display the value of n.

Following this text is an automated list of the navigation items that will be expiring on that day and for which the email recipient is designated as the person to notify about expiration in the Workflow Management section of the navigation item definition.

### ND.ExpirationNoticeText (Required)

Specifies the text that appears as the main body of the expiration notice email that is sent on the day that a navigation item expires. Following this text is an automated list of the navigation items that have expired on this day and for which the email recipient is designated as the person to notify about expiration in the Workflow Management section of the navigation item definition.

### ND.AddExpNoticeText (Required)

Specifies the text that appears as the main body of the additional expiration notice email that is sent n days after a navigation item has expired. The value of n is specified in ND.FinalExpirationNoticeDays. You can insert the variable [ExpireDays] to display the value of n.

Following this text is an automated list of the navigation items that expired on that day and for which the email recipient is designated as the person to notify about expiration in the Workflow Management section of the navigation item definition.

### ND.ExpirationTableHeader

Specifies the HTML code to use inside the table header of the list of navigation records that are automatically added to the body of all navigation item expiration emails. You should not delete, change, or add to the number of <th> elements, but it is safe to change the content of each element.

### ND.ExpirationTableRow (Required)

Specifies the HTML code to use inside the table rows of the list of navigation items that are automatically added to the body of all navigation expiration emails. You should not delete, change, or add to the number of <td> elements, but it is safe to change the content of each element. The following variables can be useful in this context:

- [Navigation.NavigationName] - The Navigation Link Text of the navigation item.
- [EditLink] - A system-generated link to the Site Designer definition window for the navigation item. You must be currently logged on iMIS through a web browser for this link to resolve correctly.

**CM.ExpirationWarningDays1**

Specifies the number of days before a content record has expired to send the first expiration warning email (CM.ExpirationWarningText). This value must be larger than the value specified for CM.ExpirationWarningDays2.

**CM.ExpirationWarningDays2**

Specifies the number of days before a content record has expired to send the second expiration warning email (CM.ExpirationWarningText). This value must be smaller than the value specified for CM.ExpirationWarningDays1.

**CM.FinalExpirationNoticeDays**

Specifies the number of days after a content record has expired to send the first additional expiration notice email (CM.AddExpNoticeText). This value must be smaller than the value specified for CM.ExpAdditionalDays.

**CM.ExpAdditionalDays**

Specifies the number of days after a content record has expired to send the second additional expiration notice email (CM.AddExpNoticeText). This value must be larger than the value specified for CM.FinalExpirationNoticeDays.

**CM.ExpirationEmailFromAddr (Required)**

Specifies the email address from which emails are sent before or after a content item expires.

**CM.ExpirationSubjectText (Required)**

Specifies the text that appears as in the subject field of all content record expiration emails. You can use the [Individual.FirstName] and [Individual.LastName] variables to personalize the text with the name of the email recipient.

### CM.ExpirationOpeningText

Specifies the text that appears as the opening paragraph in the body of all content record expiration emails. You can use the [Individual.FirstName] and [Individual.LastName] variables to personalize the text with the name of the email recipient.

### CM.ExpirationWarningText (Required)

Specifies the text that appears as the main body of the first and second expiration warning emails that are sent n days before a content record has expired. The value of n is specified in CM.ExpirationWarningDays1 and CM.ExpirationWarningDays2. You can insert the variable [ExpireDays] to display the value of n.

Following this text is an automated list of the content records that will be expiring on that day and for which the email recipient is designated as the content owner in the Workflow Management section of the content record definition.

### CM.ExpirationNoticeText (Required)

Specifies the text that appears as the main body of the expiration notice email that is sent on the day that a content record expires. Following this text is an automated list of the content records that have expired on this day and for which the email recipient is designated as the content owner in the Workflow Management section of the content record definition.

### CM.AddExpNoticeText (Required)

Specifies the text that appears as the main body of the additional expiration notice emails that are sent n days after a content record has expired. The value of n is specified in CM.ExpAdditionalDays. You can insert the variable [ExpireDays] to display the value of n.

Following this text is an automated list of the content records that expired on that day and for which the email recipient is designated as the content owner in the Workflow Management section of the content record definition.

### CM.ExpirationTableHeader

Specifies the HTML code to use inside the table header of the list of content records that are automatically added to the body of all content record expiration emails. You should not delete, change, or add to the number of <th> elements, but it is safe to change the content of each element.

### CM.ExpirationTableRow (Required)

Specifies the HTML code to use inside the table rows of the list of content records that are automatically added to the body of all content record expiration emails. You should not delete, change, or add to the number of <td> elements, but it is safe to change the content of each element. The following variables can be useful in this context:

- [Content.ContentName] - The Title of the content record.
- [EditLink] - A system-generated link to the Content Designer definition window for the content record. You must be currently logged on iMIS through a web browser for this link to resolve correctly.

## Utilities

### User defined tables

You can generate business objects from user defined tables created in the Advanced Accounting Console. Refer to Business Object Designer for details on business objects. When you click **Build All**, **the Build Results** area will display a log of the business objects that were built, compiled, and published.

Some reasons to generate business objects from user defined tables include:

- You want the business objects to be available for IQA to create queries on the data.
- You want the business objects to be available to be exposed using the **Panel Editor** content item.

> **Note:** Rerunning the **Build All** command will cause your changes to be overwritten and lost. The business objects for user defined tables are recreated by that operation.(This is the Drop-down text)

### Package Installer Utility

In the Staff site, go to **Settings > Utilities > Package installer**:

Use Package Installer Utility to select packages for installation, view currently installed packages, and view failed installations. Although making content items deployable is the most common use for packages, they can also include:

- iMIS document system objects, such as queries, business objects, and content types
- SQL Scripts, which run against the iMIS database during installation
- Files, such as ASCX pages, images, and Word templates

**To install a package**

You can use the Package Installer to update the content items on a system and to revert them. When you run the installer multiple times on the same package, it installs only one content item. When you run the installer with multiple packages that install the same content item, only one content item is created, using the data in the last package you installed.

> **Note:** Where you see local paths specified, be sure to use the path appropriate for your system, such as C:\Program Files (x86)\ for C:\Program Files\.

1. Save the **.ipackage** file to the C:\Program Files\ASI\iMIS\Net\package\pending folder. Create the pending folder if it does not exist yet.
2. Go to **Settings > Utilities > Package installer**.
3. Select **Packages to be Installed** from the **Show** dropdown list.
4. Click **Install**.
5. If you installed any ActiveX controls, register the OCX files.
6. If your package includes a control (content item or ActiveX), repeat this process on each additional application server that needs to host it. For example, if you host your staff site on your production iMIS application server and your Public view on an external web-server, add the Package Installer to a content record that displays in both websites. Make sure you set up the correct security permissions to the content item's page so that only authorized users are able to access it.

Since iMIS runs with a single database, you do not have to install a package on multiple servers if it only includes database-related objects. But a control is an application com-

ponent, so you need to deploy it on each server that hosts it. A package can install multiple times on the same database.

**To create a package**

1. From the command line, change the directory to the following folder:
   `cd C:\Program Files\ASI\iMIS\Net\bin`
2. Execute the command to create the manifest: PackageBuilder.exe -create <packageFolder>

- Replace <packageFolder> with a path to the folder that contains the source files to be included in the package. For example:
  `PackageBuilder.exe -create C:\MyNewContentItem`
- A package.manifest file is created for you in the **<packageFolder>** location.

> **Note:** If a package.manifest file already exists in that folder, it is overwritten when you run this command.

3. In a text editor, edit package.manifest to specify the package description and the install path for each of the package's files. The install path is relative to the Net directory, which defaults to C:\Program Files\ASI\iMIS\Net.

- ASCX files (content items) usually install to: <InstallPath>iparts/Custom</InstallPath>
- DLL files usually install to: <InstallPath>bin</InstallPath>
- For <Type>Document</Type>, the <InstallPath> refers to a path in the document system. You can either enter a file system path or a document system path, such as $/Folder/SubFolder.
- For <Type>Sql</Type>, the <InstallPath> is not required, because the SQL in the file specified by <Name> is executed. If the <InstallPath> is specified, then the corresponding SQL file is saved to that path. Additionally, the file extension for an SQL file must be .sql, or it will be treated as the File type during the PackageBuilder -create step.

4. Execute the command to build the package: PackageBuild.exe -build <packageFolder> <packageFileName>:

- packageFolder is the path to the folder that contains the source files to be included in the package, such as: C:\MyNewContentItem

- packageFileName is the pathname of the package file to be generated (which must have the extension .ipackage), such as: C:\Program Files\ASI\iMIS\Net\package\pending\ASIEUGiftAidWebPart.ipackage

The following is a sample package.manifest file:

Click to view image



```
<Package xmlns="http://schemas.imis.com/2008/01/DataContracts/iParts/PackageInstaller"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
<Name>Exampleipart</Name>
<Description>TODO: description of Exampleipart</Description>
<Files xmlns:a="http://schemas.imis.com/2008/01/DataContracts/iParts/PackageInstaller/">
<a:PackageFileData>
<Name>Example-iPart-InstallScripts.sql</Name>
<Type>Sql</Type>
<InstallPath>SqlScripts</InstallPath>
</a:PackageFileData>
<a:PackageFileData>
<Name>Example-ContentType.xml</Name>
<Type>Document</Type>
<InstallPath>$/ContentManagement/DefaultSystem/ContentTypes</InstallPath>
</a:PackageFileData>
<a:PackageFileData>
<Name>MetaBuilders.WebControls.dll</Name>
<Type>File</Type>
<InstallPath>bin</InstallPath>
</a:PackageFileData>
<a:PackageFileData>
<Name>ExampleiPart.mycompany.dll</Name>
<Type>File</Type>
<InstallPath>bin</InstallPath>
</a:PackageFileData>
<a:PackageFileData>
<Name>xDisplayExampleiPart.ascx</Name>
<Type>File</Type>
<InstallPath>iparts\mycompany\exampleipart</InstallPath>
</a:PackageFileData>
<a:PackageFileData>
<Name>xEditExampleiPart.ascx</Name>
<Type>File</Type>
<InstallPath>iparts\mycompany\exampleipart</InstallPath>
</a:PackageFileData>
</Files>
</Package>
```

## Website maintenance

Website maintenance comprises the ongoing tasks that you periodically perform to help you troubleshoot your websites and manage the publishing queue for each publishing server.

### Managing the priority of pending publication requests

In the Staff site, go to **RiSE > Maintenance > Publishing servers**. If the **Number of Pending Requests** for a publishing server is a non-zero value, click **detail** to view the current publishing requests queue. You can change a request's priority in the queue by using the **Priority** drop-down list. Click **detail** to open the **Publish Server Status** window.

Click **Save** to process these changes.

### Viewing content reports

In the Staff site, go to **Continuum > Content reports**. Select a report, then from the toolbar, select **Run**. If a query parameters window is displayed, specify the additional required parameters that you are asked for, then click **Run**.

### Creating new content reports

All content reports are standard Document System report definition objects that are based on IQA queries. Some default reports are included with iMIS, and you can define additional reports using the techniques described in Reporting Essentials.

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## Modifying site themes

Several themes have been created for the Quick Start Sites. You can modify these themes to help identify and personalize your organization's website.

### Best practices for theme development

> **Warning!**
>
> Never change the core style sheets **00-Reset.css** and **10-UltraWave.css**. All derivative themes inherit from these files, and any changes you make to them are lost on upgrade. Instead, override the base styles in your **99-[theme].css** file.

Before modifying a theme, find the best one: apply all of the themes to the default **Member** site in turn, and decide which theme is closest to the final look and layout that you want.

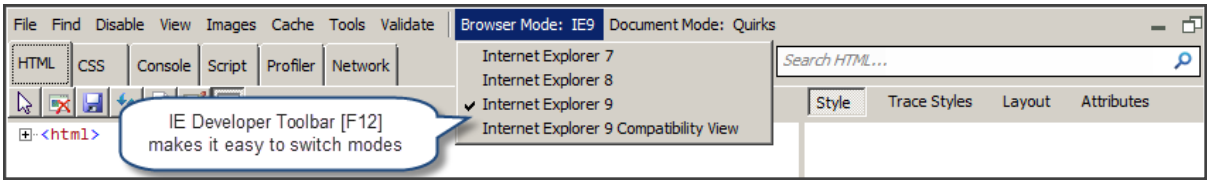
Always work from your copy of the theme, so that you can begin again. See Copying a website theme.

Make changes only to websites that you create. When a Quick Start Site is updated with each release, the iMIS Upgrader overwrites any changes you made to it.

Take advantage of browser-based developer tools to test and troubleshoot changes before committing them to your style sheets:

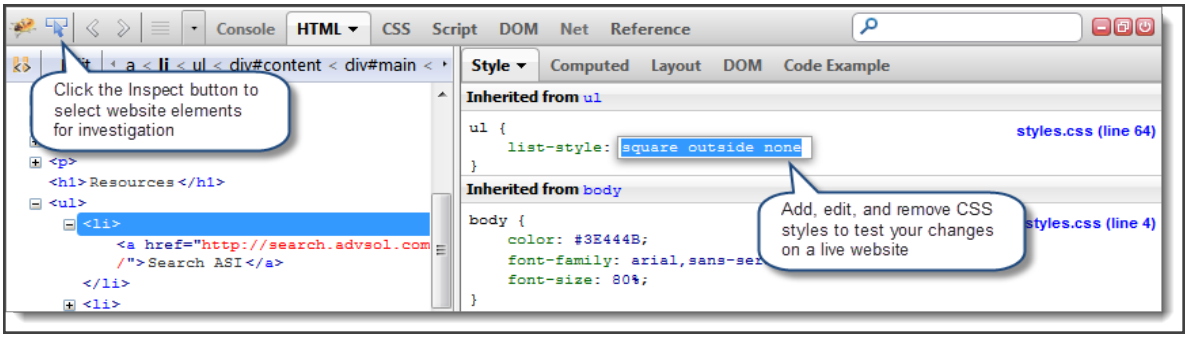
- **Internet Explorer and Chrome**: Press **F12** to toggle the Developer Toolbar.

  Click to view image




- **FireFox**: Install the Firebug add-on to see a wealth of information about the structure of the website and the styles it is using. Turn on the element inspector and click a piece of content to see the styling that it is implementing:

Click to view image




*See also*

- Using sample themes and Master Pages
- UltraWave and Universal Design
- Working with website themes
- Changing theme headers
- Changing theme colors
- Changing theme home pages
- Changing Telerik skins
- Styling your website's primary navigation
- Changing zone properties

## Changing Telerik skins

Several content items throughout the product use Rad Controls developed by Telerik. These controls require a few steps to style, and Telerik resources can help you get started:

- Telerik Control Guide – An overview of Telerik controls, including available skins.
- Telerik Visual Style Builder – Generates CSS and some images for skinning Telerik controls.

Every **[theme].skin** file lists all of the Telerik skins that it uses to style controls. If a control does not explicitly define a theme, then it uses the **Default** Telerik skin.

### Rad Window control

This control is the pop-up window that we see in many content items. Its skin is set by the following two lines in the **Aspen.skin** file:

```
<asiweb:Window runat="server" Skin="Metro" />
<asiweb:WindowManager runat="server" Skin="Metro" />
```

Metro is a skin designed by Telerik and is available on most Telerik controls, along with a handful of other Skins. You can preview available Telerik skins for this control.

> **Note:** Telerik skins are easy to switch out and virtually maintenance-free. However, they are difficult to customize, so avoid this route unless you can use the skins as-is.

### Rad Tab Strip

This control is used by the **Content Collection Organizer** and **Contact Address Editor** content items, and most other places where you see a tab strip. The following line defines the skin:

```
<telerik:RadTabStrip runat="server" Skin="Aspen" EnableEmbeddedSkins="false" />
```

The definition for this look and feel is near the bottom of the **99-[theme].css** file, under the heading **RadTools Styles**.

### Rad Menu control

This control displays the primary navigation area. There is a wrapper for this control called **PageNavR**. The following line defines the skin:

```
<asi:PageNavR runat="server" Skin="Aspen" EnableEmbeddedSkins="false" … />
```

The styling for the Rad Menu is located in the **Menu.[theme].css** file, and the image sprite is under **[theme]\Menu\rmSprite.png**. The easiest way to customize this control is to use Telerik's Visual Style Builder.

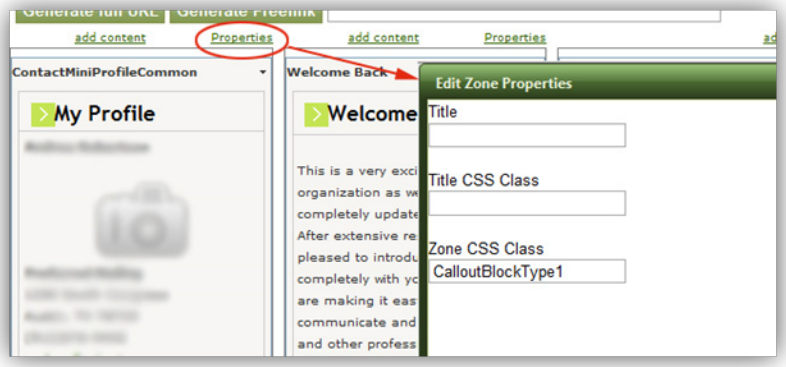
> **Note:** This tool works best in Internet Explorer.

## Changing zone properties

Zone properties make it easy to apply unique styling to specific content items, for emphasis and contrast.

To apply a style to a content item's zone property, edit the content record, click **Properties**, and enter the name of the class in **Zone CSS Class**.

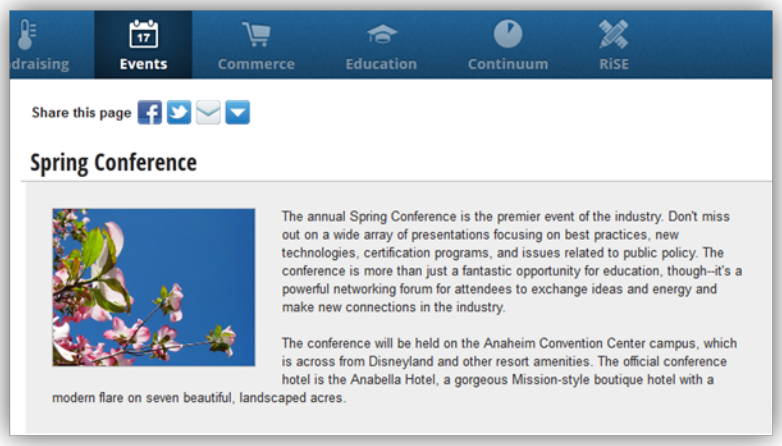
Click to view image




---

You can add more if needed, but all tree-name themes contain the following three zone style classes:

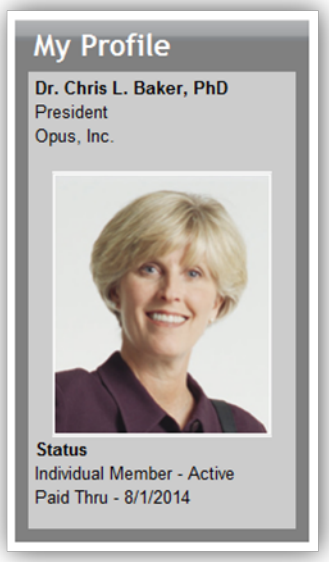
- **TitleBarNoBorder** – Removes the bottom border from content item headers.
- **CCOGrayBg** – Applies a gray background to content appearing in CCO tabs.
  Click to view image



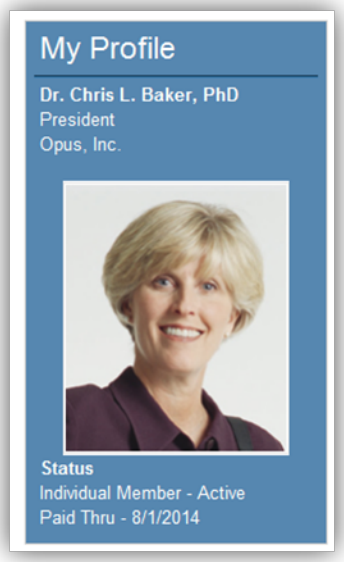

---

- **CalloutBlockType1** – Accentuates a content item whose border is enabled.

Click to view image




Aspen:




Birch:

## Easy Edit Overview

To revise an iMIS content management website page by using the Easy Edit feature, log on to the website and click the Easy Edit icon. This enables the Easy Edit mode until you click the Easy Edit icon again to disable it.

When Easy Edit mode is enabled, you will see a variety of different Easy Edit icons appear in different content areas of each web page. Exactly which Easy Edit icons you see will depend on which content authority group permissions and Document System permissions you have on the underlying content records in the rendered web page.

If you have both **Content Editor** content authority group permissions in at least one content authority group to which you belong and **Edit Document System** permissions on the specific content record displayed in a content area:

- If the content record is used in the Main Content Area of an interior page, you will see an Easy Edit icon for the entire content record and for each content item in the content record.
- If the content item is included in a System content record, you will see no Easy Edit icons for the content items in the content record, but you will see one Easy Edit icon for the entire content record.

The graphic used for each Easy Edit icon might look different, depending on what type of content items are used in the content record. For example, the Easy Edit icon for a Content Html content item will look different from the Easy Edit icon for a ContentTaggedList content item. Moreover, the Easy Edit icon for the entire content record will look different from both of those.

If you are a member of at least one content authority group (regardless of your specific content authority group permissions) and you do not have Edit Document System permissions on the specific content record displayed in a content area, then if the content record is used in the Main Content Area of an interior page, you will see no Easy Edit icons for each content item in the content record, but you will see one Easy Edit icon for the entire content record.

In all cases where you can see at least one Easy Edit icon, you can hover your mouse pointer over an Easy Edit icon to see the name of its associated content item or content record.

The action that happens when you click on any of these Easy Edit icons depends on whether you have Edit Document System permissions to the underlying content records:

- If you have **Edit** permissions on the content record, you can edit the content item or content record directly:
- Click the Easy Edit icon to open an editor that is similar to what you see in Page Builder.
- Click **Save and Publish**, or click **Save As** if you have **Edit** permissions on the system content record.
- Use your browser's **Refresh** button to display the changes that you have made to the web page.
- If you do not have **Edit** permissions on the content record, you cannot edit the associated content record. Instead, the system displays a form that you can use to enter a content change request, which is distributed as follows:
- If the content record is workflow-enabled (a content authority group is assigned to its parent content folder), an email message is sent to the content record's content owner, and a change request entry also appears in the content owner's Page Builder task list as being assigned specifically to the content owner.

- If the content record is not workflow-enabled or simply has no assigned content owner, a change request entry appears in the **Unassigned content change requests** section of the Page Builder task list for every user who has **Content Editor** permissions in at least one content authority group to which they belong. Even though these users do not receive an email from the system, they can view the contents of your email message by clicking the envelope icon next to the change request in their Page Builder task list.

### Editing a content record with Easy Edit

If you are modifying a system content record, your page will have a lone Easy Edit icon on the bottom of the page. Click this icon to open a modified edit page. Note the presence of a **Save As** button.

There are two scenarios where you will be asked to use the **Save As** Easy Edit approach: Shortcuts and Sitemaps.

Do the following to use Easy Edit to modify a system content record through Shortcuts (for example, an event detail, product detail, or account page):

1. Click the **Easy Edit** icon on your web page.
2. Make a change to your web page content.
3. Click **Save As**. You are prompted to save your content in the Shared Content folder.
4. Click **OK**.
5. Click **Save & Publish**.
6. Go to **Manage > Site Builder > Manage shortcuts**.
7. Find the shortcut that is currently pointing to the page you edited.
8. Note the values for **For Website** and **Shortcut**.
9. If the shortcut is for **All Websites** or your specific website, either edit the content record or create a site-specific content record using the following steps.

1. Click **Add new**.
2. In **For Websites**, select your website.
3. In **Shortcut**, enter the value noted in step 8.
4. In **URL or Content record**, click **select**. Select the new content record.
5. Click **Save**.

10. Go back to the page you were editing. Note in the URL, the web page is accessing the Shared_Content record. You can edit as normal.

Do the following to use Easy Edit to modify a system content record that is reached through your website's sitemap (for example, clicking on a navigation link):

1. Click the **Easy Edit** icon on your web page.
2. Make a change to your web page content.
3. Click **Save As**. You are prompted to save your content in the Shared Content folder.
4. Click **OK**.
5. Click **Save & Publish**.
6. Go to **Manage > Site Builder > Manage sitemaps**.
7. Find the sitemap for your website.
8. Click the navigation for the page you edited.
9. In **Content or URL to Link to**, click **select**.
10. Find your new content record.
11. Click **Save**.
12. Click **Publish**.
13. Click **OK**.
14. Go back to the page you were editing. Note in the URL, the web page is accessing the Shared_Content record. You can edit as normal.

**Troubleshooting**

To edit a web page's underlying content records or content items by using the Easy Edit feature, you must have Content Editor content authority group permissions in at least one content authority group to which you belong, and you must also have Read and Edit Document System permissions for that content record. Without these permissions, you are instead presented with a form that submits a change request to the Page Builder task list for all Content Editors defined in the system.

**Tip: Why use Easy Edit?**

Defining content records from within iMIS content management is a useful way to author new content, but it isn't always the most effective way to revise existing content. It can be more effective to actually browse or surf through your iMIS content management website and use the Easy Edit feature to quickly open a page's underlying content record (or even a specific content item within the content record) for editing. When you've saved your changes, you can continue browsing the website and making further content revisions as

needed.

# Installing iMIS

Use the following checklist as a roadmap for installing the iMIS application.

| Before you begin | |
|---|---|
| | Review system requirements |
| | Review 20.2 Upgrade changes |
| | Plan your iMIS architecture |
| | Configure accounts for database access |
| | Install additional required components |
| | Prepare all servers and workstations |
| **Install iMIS** | |
| | Download the iMIS product image |
| | Use the product image across the network |
| | Run the Installer |
| | Schedule content authoring workflow updates |
| | Set up Process automation tasks |
| | Install the Advanced Accounting Console |
| **Configure iMIS** | |
| | Define the date/time format for iMIS |
| | Change the font table |
| | Set up support for foreign language characters |

| | |
|---|---|
| | Set up organization codes |
| | Modify references to field names |
| | Load tab files to update zip codes |
| | Define user records and allocate licenses |
| | Change the default layout for SSRS reports |
| | (optional) Implement Analytics |
| **Configure SSL and services** | |
| | Configure SQL Server Sessions |
| | Configure IIS 7.5 or 8.5 |
| | Configure SSL |
| | Run Crystal Reports |
| | Optimize timeouts on iMIS servers |
| | Enable concurrent Casual and Full access |
| **Configure the SOA Web service** | |
| | Prepare an SOA host |
| | Secure the SOA service |
| | Enable SOA service protocol |
| | Disable all external services access |
| | Restrict access |
| | Test external access |
| | Secure web services |

| | Web client roll-out |
|---|---|
| | Go live with your website |

*See also*

- iMIS Maintenance
- Reference information
- Troubleshoot iMIS installation and upgrades

## Before you begin your installation

Use the information in this section to prepare to install iMIS.

### Planning your iMIS architecture

The server architecture of iMIS allows you to install all the components onto a single iMIS server, for simple client/server architecture, or spread the components across multiple iMIS servers, for better performance in larger organizations.

The installation process automates many steps, but you must be clear about the configuration you want in order to manage the process successfully. In planning your architecture, your task is to map out the following:

- How many servers are needed
- What will be hosted on each server

Architecture best practices

The following are some suggestions for planning your architecture:

#### Networks

- When possible, put servers on the same network, not separated over the Internet. However, you do not have to co-locate the database server with any iMISPublic iMIS server.
- When hosting your systems internally at your office, use no less than a T1 connection for the servers. This gives your users (both internal and external) the best experience with iMIS and your website.
- When hosting your systems with an external hosting company, ensure the external hosting company can provide at least 10 Mbps speed, with a further burst possible, in case of sudden track spikes.

Servers

- To protect your investment, choose servers for which you can upgrade memory, processors, and storage.
- Add an Uninterruptible Power Supply (UPS) to servers, to smooth shutdowns after power loss.
- Implement RAID. RAID 5 is the best configuration. RAID 1 is typical, depending on what your server can accommodate:
- RAID 5 array – 3 drives of the same size
- RAID 1 array – 2 drives of the same size
- No RAID – 1 drive
- Schedule and verify regular disk backups to tape, reserve disk, or other sufficiently sized storage.

> **Note:** Installing iMIS on the same server as Microsoft Exchange Server is not recommended or supported.

### Types of iMIS licenses and views

Three levels of user licenses

iMIS has three user classes, which are the foundation of the credentials for each user record that you define in **System Setup** (see Creating iMIS user records). These user classes are licensed separately, so your license agreement with ASI determines the number of each user class you can define.

- **Full** user licenses offer complete access to iMIS functionality, limited by the specific permissions defined in user records.
- **Casual** user licenses (which cost less) offer limited access to iMIS functionality and allow fewer permissions for user records (maximum authorization levels of **4** in **Customers**, **0** in **AR/Cash**, and **2** in all else).
- **Public** user licenses (which cost the least) offer very limited access to iMIS functionality, which is designed for self-service by members.

Three iMIS views

What users see depends on how they are licensed (**Full**, **Casual**, or **Public**) and how they are connecting (Advanced Accounting Console or Web):

- Administrative views (Advanced Accounting Console) run from a workstation, local or remote:
  **Full** and **Casual** users both can use administrative views, although **Casual** users see much less. These views provide access to setup and financial functionality of iMIS, which is typically required by back office staff. This access is restricted by specific user permissions that you grant or deny. The administrative view serves the following roles:
- Administrators who customize, support, or extend iMIS
- Business managers who handle finance, commerce, marketing, and so forth

- Staff view (**Staff** site):
  **Full** and **Casual** users both can browse to and access the staff site, although **Casual** users see less. This view displays some additional features (such as **Contacts** and **Directory**) that make it easy for staff to view and modify basic contact and transactional information on behalf of any iMIS user. Browser-based access offers convenience to staff users who are working away from their desks and even off-site. Casual users can read basic contact and transactional information for any user, but they can modify only limited information on behalf of other users. The staff view serves the following roles:
- Marketing and fundraising staff
- Staff who need to perform changes to customer records
- iMIS administrators who might need remote web-based access to iMIS system setup
- Executives or managers who occasionally consult iMIS data
- Volunteers who perform limited customer service tasks

- Member views (**Member** site, **Donor** site, **Annual Conference** site):
- The member views constitute what any user type sees when browsing your organization's public sites. This view exposes iMIS functionality as appropriate for members and for the general public. Anonymous users will see very little information until they register themselves as a Public user (or an iMIS administrator creates a Public user record for them). **Public**, **Casual**, and **Full** users all see the same features and information, which is intended for limited commerce and contact self-service activities by organization members. Users can register for events, pay dues, shop for products defined in iMIS, and check out.

## Configuring accounts for database access

The iMIS installer needs a **sysadmin** (System Administrator) account and password on your SQL Server because the iMIS installer creates special logins on the iMIS instance to enable system-level authentication between iMIS and SQL Server. These special logins spare iMIS users from needing a defined login or user on the SQL Server instance or iMIS database.

What access do I need?
To implement iMIS, the following are the database permissions that you need:

- **Attach database (sysadmin)**: To attach iMIS to a new database, the installer needs a **sysadmin** account. You can use your **sa** account for this.
- **Use database (db_owner)**: To authenticate users to access your iMIS database instance, you need a **db_owner** account.
  If you are upgrading an existing iMIS database, you do not need a **sysadmin** account because the database is already attached.

Do I have to expose my sysadmin password?
You can install iMIS without having to give your database's **sa** (System Administrator) user password to anyone. The installer uses the specified system administrator account to do tasks such as attaching the database, but it does not retain this account's information anywhere. As soon as installation is completed, you can delete the temporary sysadmin account as long as you supplied a separate login under which iMIS can run.

Create a temporary sa account
For optimal security, do the following to create a temporary sysadmin account to use during installation:

1. Open your SQL server management application.
2. Using the **sa** login, connect the service that will host your iMIS database.
3. Go to **Service > Security**.
4. Right-click and select **New > Login**.
5. Enter a **Login name**, for example, **sa_temp**.
6. Select **SQL Server authentication**.
7. Enter a password and confirm.

> **Note:** Special characters in the password can disrupt command-line processing, so use only alphanumeric characters and ! # @, with no spaces. You can use hyphens and underscores after the first character, but avoid all other punctuation and symbols.

8. Deselect **Enforce password policy**.
9. On the **Server Roles** tab, select **sysadmin**.
10. Click **OK**.
11. Disconnect from the SQL service and verify that you can log in to the service using the new login.
12. After installation is completed and verified, return to your SQL server management application and delete the temporary account.

Create a SQL account for iMIS to use to access the database

For optimal security, do the following to create a separate account for iMIS to use to access your database:

1. Open your SQL server management application.
2. Using the **sa** login, connect the service that will host your iMIS database.
3. Go to **Service > Security**.
4. Right-click and select **New > Login**.
5. Enter a **Login name**, for example, **imis_db**.
6. Select **SQL Server authentication**.
7. Enter a password and confirm.

> **Note:** Special characters in the password can disrupt command-line processing, so use only alphanumeric characters and ! # @, with no spaces. You can use hyphens and underscores after the first character, but avoid all other punctuation and symbols.

8. Deselect **Enforce password policy**.
9. Click **OK**.
10. Disconnect from the SQL service and verify that you can log in to the service using the new login

*See also*

- Install additional required components
- Prepare all servers and workstations

## System Requirements

iMIS architecture is made up of a single database server, one or more application servers (appservers), and two types of clients (a Windows application and a web application), which run on typical workstations. These requirements apply across database servers, appservers, and workstations. Web clients only need to meet requirements for displays and browsers.

> **Note:** You must install **hotfix (A)** after completing an initial install of 20.2, or an upgrade to 20.2. You can access this hotfix by going to ftp://ftp.advsol.com/download/Restricted/Hotfixes/20_2_1_GA/20.2.1(A)_SMR340168_and_SMR342275.zip. Contact ASI Technical Support for further assistance.

> **Note:** This version supports upgrades from any version of iMIS, starting with 15.1.3. For best results with earlier versions of iMIS, complete the upgrade to 15.1.3 before proceeding.

> **Note:** The installer removes any existing files for unsupported products, which includes e-CM, e-CM 5.1 publishing service, e-Series, and iBO for COM.

### Minimum hardware (all)

- 100/1000 Mbps network connection between database server host and all appservers and iMIS desktop clients.
- 2 GHz Intel Pentium 4 or compatible processor (64-bit processors must support Intel 64 or AMD64 architectures).
- 2 GB of RAM.
- 3.2 GB of disk space for a full/custom install. 1.8 MB for Advanced Accounting Console install/upgrade (InstallShield might under-report disk space needed).

- An additional 2 GB of disk space on the C: drive (for temp files). When upgrading, an additional amount of C: drive disk space on the database server that totals twice the size of your database.
- Application Server: additional disk space for publishing and indexing your contact files for search (for example, 275K contacts=1GB, 2M contacts=7.56GB).
- Display with 1024x768 (XVGA) minimum resolution.

### Operating systems

- *Servers:* Windows Server 2008 R2 SP1, 2012 and 2012 R2 (64-bit, Standard/Enterprise/Datacenter editions only)
- *Workstations:* Windows Vista SP2, Windows 7 SP1, and Windows 8.0 and 8.1 (32-bit and 64-bit), installed as and set to run as Administrator, with non-Aero theme.

### Databases

- Microsoft SQL Server and Express Edition 2014
- Microsoft SQL Server and Express Edition 2012 SP2
- Microsoft SQL Server and Express Edition 2008 SP3 and 2008 R2 SP3 (32-bit and 64-bit)

> **Note:** 2008 R2 is not backwards compatible.

### Appservers

- Microsoft .NET Framework 3.5 and 4.5 (ASP.NET)
- SQL Server 2008/2012/2014 Management, Client, and Backward Compatibility Client Tools
- Microsoft Internet Information Services (IIS) 7.5, 8.0, or 8.5
- Java Runtime Environment (JRE) Version 7
- Apache Lucene 4.1 Indexing and Search (included with install).

### Systems running iMIS Advanced Accounting Console

- Microsoft .NET Framework 3.5 and 4.5 (ASP.NET)
- Microsoft Word 2007 SP3 and Word 2010 SP2 for Word integration
- Microsoft Excel 2007 SP3, Excel 2010 SP2, and Excel 2013 SP1 for iMIS Analytics
- Adobe Reader XI, installed on all servers and clients to print iMIS reports
- (optional) ExpoCAD 7.4
- Omnis 7 version 3.6.4 (included with install)

### Browsers

- Internet Explorer 8-11 (native) for RiSE
- Internet Explorer 8 (compatibility mode) for all non-RiSE .NET web applications
- Internet Explorer 9-11 for iMIS Advanced Accounting Console and remote Advanced Accounting Console
- Firefox (most recent stable version, version 32 as of 6 Oct 2014) for RiSE, web views and remote Advanced Accounting Console
- Chrome (most recent stable version, version 37 as of 6 Oct 2014) for RiSE and remote Advanced Accounting Console
- Apple OS X and IOS 8.0: native default browser, for RiSE
- Google Android 4.4: native default browser, for RiSE

### Report writing

- Reporting Services: SQL Server 2008 and 2008 R2 Business Intelligence Development Studio (BIDS); or SQL Server 2012 SQL Server Data Tools (SSDT).
- Crystal Reports 9.0.

### Additional components

- Application Initialization
- Web Deploy
- PowerShell 3 or greater
- Configure ANSI settings
- IIS URL Rewrite module

**Note:** Optional products, such as Analytics, might have additional requirements. See the reference materials for these products to review any requirements or installation information.

**Note:** If you have a small implementation and can work within the size limitations, use Microsoft SQL Server Express Edition instead of Microsoft SQL Server.

**Note:** Any references to the iMIS public view are included as reference information for the configuration or maintenance of iMIS installations that already include an

iMIS public view. You cannot install iMIS public view during an initial iMIS installation process.

## Install additional components

The following components must be installed. The iMIS installer checks for specific product versions. These components must be installed on the hosts (iMIS server and Advanced Accounting Console). If the following components are not installed, the installer will display a message indicating which components were not installed and then exit.

### Application Initialization

**Note: Application Initialization** is included with Windows Server 2012 and 20012R2.

To enable Application Initialization, do the following:

- Download and install Application Initialization.
- To enable Application Initialization on Windows Server 2012 or 2012R2, do the following:

a. Open the **Server Manager**.
b. Go to **Manage > Add Roles and Features**.
c. Follow the instructions in the **Add Roles and Features Wizard** until you get to the **Select server roles** page.
d. Go to **Web Server (IIS) > Web Server > Application Development > Application Initialization**.
e. Check the box to enable the **Application Initialization**.

### Web Deploy

To enable Web Deploy, do the following:

1. Download Web Deploy. Make sure to select the **WebDeploy_amd64_en-US.msi** file.
2. Follow the installation instructions on the download page.

### PowerShell 3 or greater

**Note: PowerShell 3** is included with Windows Server 2012 and 20012R2.

To enable PowerShell 3 or greater, do the following:

1. Download Windows Management Framework 3.0.
2. Follow the installation instructions on the download page.

**Configure ANSI settings**

iMIS requires that all tables be fully ANSI compliant, so they must be created with `SET ANSI_NULLS ON` and `SET ANSI_PADDING ON`. During upgrades, the **ConvertTablesToANSI** command-line utility rebuilds every table in the database that is not ANSI compliant, including user-defined and third-party tables.

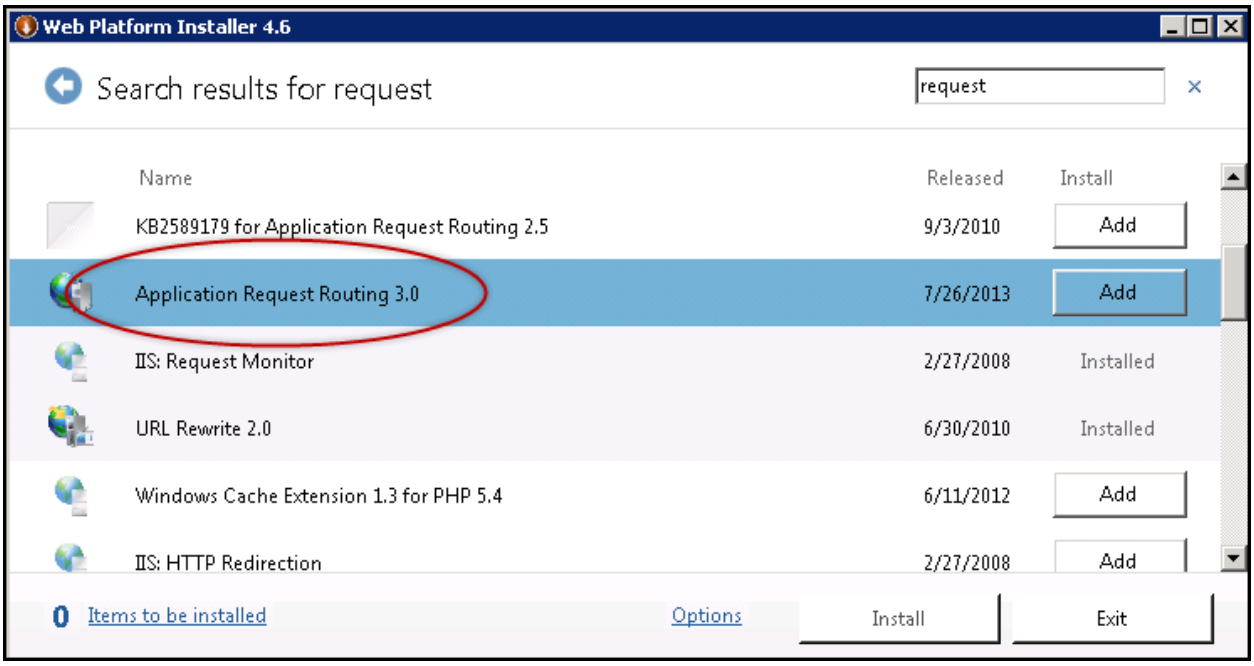
If you are creating your own tables, procedures, triggers, views, and so forth, be sure to set these ANSI settings:

```
SET ANSI_DEFAULTS ON
SET IMPLICIT_TRANSACTIONS OFF
SET CONCAT_NULL_YIELDS_NULL ON
SET ARITHABORT ON
SET NUMERIC_ROUNDABORT OFF
```

**IIS URL Rewrite module**

Do the following to install the IIS URL Rewrite module:

1. Download the Web Platform Installer.
2. Click **Free Download** to download the Web Platform installer.
3. Start the installer.
4. Enter **request** in the search field, and press **Enter**.
   Click to view image



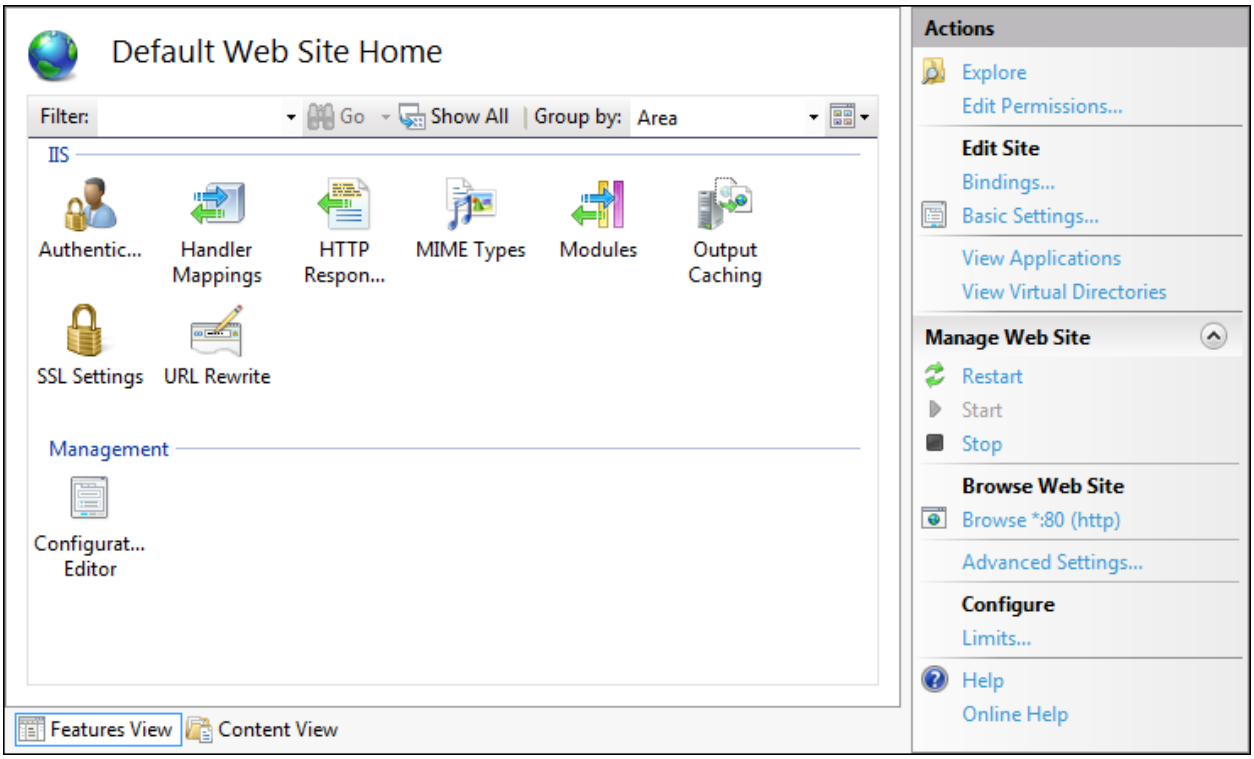

5. Select **Application Request Routing 3.0**.
6. Click **Add**.
7. Click **Install**.
8. Click **I Accept** on the following screen.

   **Note: URL Rewrite** is indicated as a dependency.

9. Click **Finish**, and then click **Exit** to quit the Web Platform Installer.
10. Verify the installation was successful. Go to **IIS Manager > Sites > Default Web Site**.

    The **URL Rewrite** module will be visible in the **IIS** group.

    Click to view image




## Prepare all servers and workstations

After ensuring all computers meet the system requirements, and valid licenses have been obtained and a database SysAdmin account is set up, apply updates, tests, and settings to prepare your database servers, iMIS servers, and workstations.

Generally, you need to walk through these procedures only once, when first setting up the servers and clients used in your implementation.

Preparing database server hosts

Verify that each server to host an iMIS database meets all System Requirements.

Preparing the application

Do the following to prepare the application.

> **Note:** The installer warns you if it cannot enable or detect a required service.

1. Verify that each server host meets all System Requirements.
2. **For upgrades only:**(Application servers only) Update your current installation of iMIS to required release levels and licensing.

> **Note:** iMIS must be release 15.1.3 or higher.

3. Verify that you can make a SQL connection from each iMIS server host to the SQL Server instance on the database host where the iMIS database resides.

Preparing the Advanced Accounting Console

Do the following to prepare workstations:

1. Verify that each user workstation meets all System Requirements for the type of client used.
2. Verify that a high-bandwidth SQL connection (10/100) can be made between workstations and the SQL Server instance hosting the iMIS database.

> **Note:** Avoid low-bandwidth connections to the database host, such as through VPN. The high-volume SQL traffic will slow performance for Advanced Accounting Console users. If you have remote staff that need to access the Advanced Accounting Console, have them run the Advanced Accounting Console from a terminal server that is on the same network as the database host.

3. Optimize Internet Explorer settings for iMIS. If running the Advanced Accounting Console on Windows Server, then go to your server manager application, open **Internet Explorer Enhanced Security Configuration (Configure IE ESC)** and disable both **Administrators** and **Users**. Expect Internet Explorer to warn you that this is disabled.

a. In Internet Explorer, go to **Tools > Internet options**.
b. On the **General** tab, select **Browsing history > Settings**. Under **Temporary Internet Files**, set **Check for newer versions of stored pages to Every time I visit the webpage**.
c. Click **OK**.
d. On the **Security** tab, select **Trusted sites**.
e. Click **Default level**.
f. Set the security level to **Low**.
g. Click **Sites**.
h. Add the name of your iMIS application server host (**http://<*myserver*>**).
i. Disable **Require server verification (https:) for all sites in this zone**.
j. Click **Close**.

k. On the **Advanced** tab, check **Disable script debugging (Other)**.
l. Click **OK**.
4. (optional) Ensure that each workstation that will be using ProClarity Pro to view the Analytics analysis database can address the Analytics host (where the data warehouse and analysis database are installed) by using a standard computer name.

> **Note:** Using ProClarity Professional on a remotely accessed terminal server or Citrix machine is untested. VPN connections from ProClarity Professional on a workstation to the domain containing the Analytics host is also untested.

## Install iMIS

In a basic install, you run setup on a single iMIS server, specifying a Complete installation. To create a more sophisticated server architecture, you can choose a Custom option to install specific iMIS applications and options on any computer. The database work is automated. You choose whether to create an iMIS database or upgrade an existing one.

Before you install iMIS, have the following information available:

| | |
|---|---|
| SQL Server Name | _____ |
| Database Name | _____ |
| Password | _____ |
| User Name | _____ |
| The domain name of your SMTP server | _____ |
| Omnis7 serialization details:<br>□ User Name<br>□ Company Name<br>□ Serial Number | <br>_____<br>_____<br>_____ |

### Downloading the product

Do the following to download the product:

1. Log on to the Support site.
2. Go to **Releases > iMIS**.
3. Select the most recent version of iMIS and download the associated self-extracting zip file, for example, **iMIS *nn.n.n.n*_Product_CD.zip**.
4. Select the most recent update to the release, if any, and download the zip file.
5. Double-click the downloaded files to extract the files to their default locations on the C: drive.

> **Note:** Review the README file that is included with the **Production Release** self-extracting zip file.

### Using product images across the network

Do the following to use product images across the network:

1. Copy the extracted product image to a shared network location.
2. On the machine where you need to run setup.exe, map a drive letter to the network location of the extracted product image.
3. Browse to the installation program on that mapped drive.

### Run the Installer

Do the following to install iMIS:

1. Finish all tasks in Prepare all servers and workstations and review the System Requirements.
2. On your application server host, temporarily disable tools and settings that might interfere with the installation:

- Disable anti-virus software.

3. Run the product **setup.exe**.
4. The **Welcome** page is displayed. Click **Next**.
5. The **Select installation type** page is displayed. Select the type of installation to perform:

- Complete installs a single iMIS server, with the following results:
- All core components are installed, but no optional applications.
- The iMIS server supports all user classes and views (see Types of iMIS licenses and views).
- All pre-configured installers are available for download from the iMIS server.

- Custom installs everything covered in Complete, as well as letting you add the following:
- Multiple iMIS application servers, choosing the specific iMIS applications and optional components that you want on each host.
- iMIS Analytics, even in a single iMIS server environment.

> **Note:** The iMIS server from which users download the desktop installer is the one to which the installed desktop will connect. Therefore, to balance loads across the organization, put pre-configured installers on each iMIS server the organization will use.

Click **Next**.

6. The **Select destination location** page is displayed. **Click** Next to accept the default installation path (recommended).
7. The **Specify database connection** page is displayed. Enter the database connection information:

a. In the **SQL Server Name** list, select a SQL Server instance or enter the name manually.
b. Select whether to **Create a new database** or **Use an existing database**. Changing this mode enables different fields:

- (*existing databases*) In **Database Name**, enter the name of your iMIS database. Ensure that the name is valid for your SQL Server configuration.

> **Note: Database Name** is case-sensitive.

> **Note:** The iMIS **Database Name** must begin with a letter. Do not use **(local)**, and do not use special characters in the name.

- (*new databases*) Select **DemoDB** or **EmptyDB** from the list.

> **Note:** The **DemoDB** is pre-configured with sample data. To see iMIS in action, install the **DemoDB** and publish a Using Quick Start Sites. You can also copy a Quick Start Site and tailor the new site to meet your organization's website needs.

For greatest security, enable the checkbox to **Use separate (sa) credentials when creating new database**.

- In the fields on the right, specify a system administrator account, which the installer will use only temporarily.
- In the fields to the left, specify values for a new, standalone user account to be created by the sysadmin account. These values will be used in your configuration file for enabling database access (**db_owner**).

- For **User Name**, enter the sysadmin login for the SQL Server instance that is hosting the iMIS database.
- For **Password**, specify the password for the accounts you entered. If left blank, the install fails.

> **Note:** Special characters in the password can disrupt command-line processing, so use only alphanumeric characters and ! # @, with no spaces. You can use hyphens and underscores after the first character, but avoid all other punctuation and symbols.

Click **Next**.

8. The **Specify iMIS configuration** page is displayed. Enter any virtual roots, SMTP server, and other information.

a. In **iMIS application root**, select a root, which affects the final URL:

- **Virtual root** – Sets the root below which all of your iMIS sites will appear on your domain.

b. In **SMTP server name**, specify the domain name of your SMTP server.

> **Note:** An invalid domain name will cause several email notification features to fail until you perform troubleshooting steps (see Email output or event invites not sent or received).

c. Record the URLs shown for all virtual roots: you will need these later.

d. Accept the **Publishing Server Code** default. If you install additional publishing services, set them to different letters.

The **Publishing Server Code** associates the physical publishing service (running on a web server) with the specific Publish Server record in the database that configures it. Select different letters as needed to avoid colliding with the mapping of other installers. If the wizard detects that the path for the code you selected differs from your install location, it prompts you to change either the install directory or the publishing service code.

e. The **New Manager Password** window is displayed. Enter a new **Manager** password.

> **Note:** The new password must be at least seven alphanumeric characters long, and must contain at least one uppercase letter, one lowercase letter, and one number.

9. Select **Show advanced options**. An **iMIS Desktop** button is displayed.
10. Click **iMIS Desktop**. The **iMIS Desktop advanced install options** window is displayed. As needed, change what users can see and do when they install Advanced Accounting Console:
    - Force users to install Advanced Accounting Console to the default path on their local system.
    - Create prompts to guide users during the client install.
    - Prevent or enable users to modify their existing iMIS installation.
11. Click **Save** and then click **Next**. The **Specify ASI license information** page is displayed. Enter the license information per your license agreement.
    If you have purchased additional product keys with this release, add the additional license keys here before continuing. For more information, see Adding product keys to iMIS.

    > **Note:** If you previously selected to install with a new **DemoDB**, these fields are unavailable.

    Click **Next**.
12. The **Review installation settings** window is displayed. Verify the settings. Click **Next**.
13. The **Setup Status** window is displayed. The wizard displays the setup status as it copies files.

14. The **Omnis Serialization Details** window is displayed. Enter your information from your licensing agreement (the serial number is on the yellow card). Click **OK**.
15. The **InstallShield Wizard Complete** window is displayed. Review all messages that are displayed on the completion page, taking actions as needed. Click **Finish**.
16. Reboot the server to ensure that logon handling is properly initialized. Failure to initialize might result in user passwords being openly displayed (unmasked) during logon.

**Scheduling content authoring workflow updates**

You must perform this task to enable content authoring workflow to function properly.

Some workflow-related actions are initiated directly by users, such as approving a publishing request in your Content Designer Task List. However, the workflow actions related to managing expired content, such as sending expiration notices or removing content that has expired are managed by a program called ContentWorkflow.exe, which must be manually added to the Windows Task Scheduler on your production iMIS application server.

The Task Scheduler is slightly different on each version of Windows, so adapt the following steps as needed:

1. Create a **Basic** task in the **Task Scheduler Library** folder.

- From **Trigger > Daily**, create a task to check expired content once per day.
- From **Action > Start a Program**, specify **ContentWorkflow.exe**. This is located in **C:\Program Files (x86)\ASI\iMIS\Net\bin\ContentWorkflow.exe** by default.
- **Add arguments (optional)** is not required.
- **Start in (optional)** updates the path where the log file is added. This is located in **C:\Program Files (x86)\ASI\iMIS\Net**.

2. Find the new task that you created in the **Task Scheduler Library** folder and modify the following properties:

- On the **General** tab, select the option to run regardless of whether you are logged on or not.
- On the **Settings** tab:

i. Select the option that enables the task to be run as soon as possible after a scheduled start is missed.

ii. Select the option that stops the task if it runs longer than a certain duration and specify a value, such as 2 hours.
If you have issues completing this process, consider the following items:

- You must have administrative access to the Windows Task Scheduler and the entire file system on your iMIS application server.
- Your user account on the iMIS application server must have **Log on as batch job** rights.
- To improve logging speed, make sure that you manually clear **workflow.log**. If you prefer to automate this task, configure Log4Net to purge its contents each time it is run.

**Setting up Process automation tasks**

When you install iMIS, several system alert tasks are enabled and set up to display to website users by default. After an install, you should review the system alerts tasks to confirm that you do want these alerts to display to users. The review process will differ depending on whether or not you are licensed for advanced tasks.

If you have the advanced tasks license

You should review the system alerts tasks to confirm that they are configured appropriately for your organization. If you do not want a system alert task to generate an alert that displays to users, you need to disable the task.

1. In the Staff site, go to **RiSE > Process automation**.
2. Select the **Tasks** tab.
3. Open and review the alert tasks.

a. If you do not want to use a system task, deselect **Enabled**.
b. Confirm that the task uses an appropriate **Conditions** data source. The task only runs when the data source returns records.
c. Confirm that the **Alert** is configured appropriately.

4. Review the query data sources used as conditions in the enabled tasks. Data sources are located at **$/Common/Tasks/Queries** in the Document System. If you want to modify a query data source:

a. Copy the query.
b. Modify your version of the query.
c. Update the task to use the new **Conditions** data source.

5. Go to **RiSE > Process automation**.

6. Select the **Alert sets** tab and confirm that the alert tasks are located in the appropriate alert set.

If you do not have the advanced tasks license:
You cannot edit the out-of-the-box alert tasks, but you can control whether or not they display on your website by including or removing them from the system alert sets. If an alert task is not included in an alert set, it does not display.

1. In the Staff site, go **to RiSE > Process automation**.
2. Select the **Alert sets** tab.
3. Open the alert set you want to edit.
4. To add an out-of-the-box alert task to the set:
a. Select **Add New**.
b. Select the alert task you want to include from the **Task** drop-down.
c. Save the task.
d. Use the arrows to arrange the alert tasks in the desired order.
5. To remove an out-of-the-box alert task from the set:
a. Select the alert set.
b. Choose **Delete selected**.
c. Click **OK** to confirm the deletion.
6. Save the alert set.

See Displaying automated alerts for more information.

### Installing Advanced Accounting Console with a silent installer

Larger organizations might want to run a silent version of the iMIS Installer, where the setup.exe file displays no installation pages and requires no manual input to run to completion. Run the setup.exe file in a recording mode to create an answer file named **setup.iss**. Then you can use any automated process of your choosing to run the **setup.exe** file in a silent mode that uses the answer file to specify all the installation details.

For example, a common use of this technique is to automate the installation or upgrade of Advanced Accounting Console on the workstations of your staff after an update has been

applied to your iMIS application server. After you have manually updated your iMIS application server with the latest setup.exe file, you can do the following:

1. Produce an answer file to use for new installations of the Advanced Accounting Console:
a. Run the latest setup.exe file in recording mode on a workstation that has no Advanced Accounting Console.
b. Perform a **Custom** installation that installs only the Advanced Accounting Console.
2. Produce an answer file to use for upgrades of existing Advanced Accounting Console:
a. Run the latest setup.exe file in recording mode on a workstation that already has an Advanced Accounting Console.
b. Perform a **Custom** installation that installs only the Advanced Accounting Console.
3. You then use the automated process of your choice to run the latest setup.exe file silently, along with one of these answer files as appropriate, on all the workstations in your organization where you want to install or upgrade the Advanced Accounting Console.

> **Note:** Although you can technically use this recording process to create an answer file for any type of iMIS installation that can be performed manually, ASI does not recommend silent installations of any server-side component of iMIS. Any attempts to do so are at your own risk.

Recording an answer file

This process records the configuration used for a run-through of the iMIS Installer to an answer file. You will have an opportunity to cancel the process immediately after the answer file has been created, but before the installation actually begins.

Do the following to record an answer file:

1. Open a command prompt window and navigate to the folder where the setup.exe file is located.
2. Enter **setup.exe -r** to launch the iMIS Installer in recording mode.
3. Work through all of the Installer pages as normal for the type of installation you are recording.

4. When you reach the point where installation is ready to begin, you are prompted to choose whether to stop at this point or continue with the installation. If all you want is the answer file, you can choose to stop at this point.
5. Go to **C:\Windows** and locate the **setup.iss** file that was created. Copy this file and the setup.exe file to a folder with a meaningful name that describes the type of installation this pair will create.
6. Use a text editor to modify the lines near the end of the answer file that specify your OMNIS licensing information. Look for the following lines and modify the values as appropriate, then save the file.

```
sOmnisUserName=ADD OMNIS USER NAME HERE
sOmnisCompanyName=ADD OMNIS COMPANY NAME HERE
sOmnisLicenseValue=ADD OMNIS SERIAL NUMBER HERE
```

This file pair (the **setup.exe** file and the **setup.iss** answer file) can now be used in silent installations.

Running a silent installation using an answer file
Do the following to run a silent installation using an answer file:

1. Open a command prompt window and navigate to the folder where the **setup.exe** file and **setup.iss** file are located. These two files must be in the same folder, and there must be only one **setup.iss** file in this folder.
2. Enter **setup.exe -s** to launch the iMIS Installer in silent mode.
   There is no consistent visible indicator of the status of the installation while it is running, as this is a silent installation. The only way to tell when the installation has finished is either by the absence of the **setup.exe** process in the Windows Task Manager, or by looking for the following line to be written to the end of the silent installation log file (**setup.log**) that is created in the same folder as the **setup.exe** and **setup.iss** files:

```
[ResponseResult]
ResultCode=n
```

## Installing Advanced Accounting Console with an installer

**Full** and **Casual** users who need Advanced Accounting Console can log in, download, and run a pre-configured installer from an iMIS application server. No license or connection information is required during installation.

Before you begin
Make sure your iMIS administrator gave you the website URL to download the installer and a **Logon** name and **Password** to use with Advanced Accounting Console.

You must be an Administrator on your computer to install Advanced Accounting Console, and you need to set your Advanced Accounting Console shortcuts to **Run as administrator**.

Do the following to download and install Advanced Accounting Console:

1. On the computer where you need Advanced Accounting Console, open a web browser and go to the URL given to you. The **iMIS Pre-configured Installers** page is displayed.
2. Click the link for **Desktop Client Install** and save the file to the desktop on your computer.
3. From the desktop, run **IMISSetup.exe**.
4. Choose **Allow** when prompted whether to run the program. The setup program prepares and displays the **Welcome** page of the **iMIS - InstallShield Wizard**.
5. Click **Next**.
6. Click **Next**.
7. Click **Next**. The wizard displays setup status as it copies files, and then the wizard completion page is displayed.
8. Review the messages on the completion page and act on them as needed.
9. Click **Finish**.
10. Configure the Advanced Accounting Console shortcut to **Run as administrator**:
a. Locate the **Start** menu shortcut for **Advanced Accounting Console**.
b. Right-click the shortcut and select **Run as administrator**.
c. If prompted to allow **Omnis7.exe** to run, click **Allow**.
11. Test your access to iMIS:
a. Go to **Start > All Programs > ASI > iMIS > iMIS Desktop**. The Advanced Accounting Console opens a logon screen.
b. In the **Logon** field, enter the logon name given to you.

c. In the **Password** field, enter the password given to you.
d. Click **OK**. If you see the iMIS **Home** page, your Advanced Accounting Console is working properly.

> **Note:** If you see multiple errors for running scripts after you first log on to Advanced Accounting Console, your Internet Explorer security settings might be too high.

**Using Advanced Accounting Console with multiple iMIS servers**

(If you have more than one instance of iMIS (see Choosing single or multiple iMIS servers), you might need to configure Advanced Accounting Console to be able to connect to more than one instance, such as connecting to test and production environments.

> **Note:** The URL for the Advanced Accounting Console must end with **/CS2**.

Configuring Advanced Accounting Console to connect to multiple iMIS server URLs

Do the following to configure Advanced Accounting Console to connect to multiple iMIS server URLs:

1. Open Advanced Accounting Console but do not log on.
2. Click **Cancel**.
3. From the Advanced Accounting Console menu bar, go to **Logon > Set Host Location**.
4. On the **Local Preferences** window, click **Insert**.
5. On the **Application Server URL Setup** window, specify one of the iMIS server URLs in the **Server** field.
6. Click **Save**.
7. Repeat this process for each URL that your iMIS administrator has given you.
8. Close the **Local Preferences** window.

Specifying the instance of iMIS to which you connect

Do the following to specify the instance of iMIS to which you connect:

1. Open Advanced Accounting Console but do not log on.
2. Click **Cancel**.
3. From the Advanced Accounting Console menu bar, choose **Logon > Set Host Location**.
4. On the **Local Preferences** window, click **Edit**.

5. When the **Application Servers** list becomes active, choose the URL to which you want to connect.
6. Click **OK**.
7. Close the **Local Preferences** window.
8. From the Advanced Accounting Console menu bar, go to **Logon > Logon to Host**. The logon area appears, with the **Server** field indicating the instance of iMIS to which you will be connecting when you log on.

## Configure iMIS (EmptyDB)

iMIS needs to be configured before being made available for general use. You can customize fonts, colors, report layout defaults and other options at this point. You must also assign users to classes based on your licensing agreement, and set permissions.

> **Note:** This section describes how to perform system configuration only. To configure specific features and areas, refer to the reference guide for each specific feature and area.

After you finish installing, complete configuration per your situation:

### Configuring options in Advanced Accounting Console

The System Setup in the Advanced Accounting Console provides configuration options for a variety of iMIS features. To access the **System Setup** in the Advanced Accounting Console, go to **File > System Setup**.

Defining the date/time format for iMIS

(The **Date Format** field in the System Setup window is blank by default, which causes iMIS to use the U.S. English short date and time formats used in most U.S.-based computers. For example:

- 11/16/2007 is the short date format that represents November 16, 2007
- 2:16:26 PM is the time format that represents 14:16:26

> **Note:** Use a format that displays the entire four-digit year so that users can verify the correct century. iMIS typically assumes a year of 29 or less to refer to the 21st

century (30/3/22 = 30 March 2022) and 30 or higher as the 20th century (30/3/30 = 30 March 1930).

Formatting date/time outside the United States
(Whenever you have the operating system of an iMIS server set for a region other than U.S. English, be sure to specify a matching **Date Format** in iMIS. The region is set through **Control Panel > Regional and Language Options, Regional Options**.)

For example, if the server specifies **English (United Kingdom)** for the regional language, **16/11/2007** for the **Short date** format, and **14:16:26** for the **Time** format, you must make iMIS match by specifying **D/M/CY H:N:S** in iMIS.

Do the following to define the date/time format for iMIS:

1. Log on to Advanced Accounting Console with the **MANAGER** logon.
2. Go to **File > System Setup**.
3. Click **Edit**.
4. In the **Date Format** field, specify a combination of variables that represents the **Short date** and **Time** formats used by the operating system of the iMIS application server. For example:
- **m D CY H:N.S.s** returns **JUN 12 2008 15:45.00.00**
- **D m Y H:N A** returns **12 JUN 08 3:45 PM**
- **M/D/Y H.N** returns **06/12/08 15.45**
- **YMD** returns **080612**
5. Click **Save**.
6. Restart **iMIS**.

Click to view table

| Variable | Description | Example |
|---|---|---|
| Y | Year, 2-digit | 99 |
| y | Year with Century, 4-digit | 1999 |
| C | Century, 2-digit | 19 |

| Variable | Description | Example |
|---|---|---|
| M | Month, numeric | 06 |
| m | Month, 3-character abbr. In caps | JUN |
| D | Day of month, cardinal | 12 |
| d | Day of month, ordinal | 12th |
| W | Day of week, numeric, Sunday=0, Saturday=6 | 5 |
| w | Day of week, full name | Friday |
| H | Hour of day, 24-hour format | 0-23 |
| h | Hour of day, 12-hour format | 1-12 |
| N | Minutes, 2-digit, with leading zero | 07 |
| S | Seconds, 2-digit, with leading zero | 02 |
| s | Hundredths of seconds, 2-digit | 37 |
| A | AM/PM, all caps | AM |

Changing the font table

The font table controls the fonts that are used for reports in iMIS. The type and size of the font determines how the report will print both on the screen and on the printer. If the fonts are not properly set, the output may cause a reduction in printing speed, loss of quality, or missing components.

View the font table to make sure that it is properly set up and that all of the necessary fonts are installed.

Support for foreign language characters

iMIS runs a customizable stored procedure that replaces foreign characters (ASCII 128 to 256) with standard equivalents (ASCII 0 to 127) before it adds a name or address to a search index. Likewise, when you search for a name or address, iMIS runs the same

stored procedure on the search text before it performs the search. The stored procedure works with all Microsoft SQL Server code page settings.

iMIS supports foreign language prefixes such as **l'** and **d'**.

- The lower-case word list accepts prefixes that contain an apostrophe.
- A customizable list (the **Company Sort Excluded Prefixes** list) can exclude prefixes that contain an apostrophe from the Name.COMPANY_SORT field.
  Both lists are available on the **System Setup** window.

Foreign language character replacement map
The following table indicates how iMIS replaces foreign (high ASCII) characters before it adds a name or address to a search index.

Click to view table

| Original | Replacement | Original | Replacement | Original | Replacement | Original | Replacement |
|---|---|---|---|---|---|---|---|
| Š | S | È | E | ä | a | € | E |
| É | E | å | a | Œ | C | Ê | E |
| Æ | a | Ž | Z | Ë | E | ç | c |
| ™ | T | Ì | I | è | e | š | s |
| Í | I | é | e | ž | z | Î | I |
| ê | e | Ÿ | Y | Ï | I | ë | e |
| ¥ | y | Ð | D | ì | I | § | S |
| Ñ | N | í | i | © | c | Ò | O |
| î | i | ª | a | Ó | O | ï | i |
| ® | R | Ô | O | ð | o | ² | 2 |
| Õ | O | ñ | n | ³ | s | Ö | O |

| Original | Replacement | Original | Replacement | Original | Replacement | Original | Replacement |
|---|---|---|---|---|---|---|---|
| ò | o | µ | u | × | x | ó | o |
| ¹ | 1 | Ø | O | ô | o | ¼ | 4 |
| Ù | U | õ | o | ½ | 2 | Ú | U |
| ö | o | ¾ | 3 | Û | U | ø | o |
| À | A | Ü | U | ù | u | Á | A |
| Ý | Y | ú | u | Â | A | Þ | P |
| û | u | Ã | A | ß | s | ü | u |
| Ä | A | à | a | ý | y | Å | A |
| á | a | þ | b | Æ | A | â | a |
| ÿ | Y | Ç | C | | | | |

Setting up organization codes

Many iMIS processes and reports are tied to **Org Codes** that relate to your organization's various public faces, each of which might have a different name, mailing address, logo, letterheads, taxation method, and so forth. You define your various **Org Codes** and their related information in the **Organization Names** window.

Do the following to set up organization codes:

1. Log on to iMIS Advanced Accounting Console with the **MANAGER** logon.
2. Go to **File > System Setup**.
3. Click **Organization Names**.
4. Click **New** and add your organization name and related details:

- In the **Org** field, enter a code for the organization.
- If this org code is for your main organization headquarters, select the **Default Organization** checkbox.
- In the **Name** field, enter the official name of the organization.

- In **Invoice/Receipt Address**, enter the street address to which invoices and receipts for the organization should be shipped.
- (optional) In the **Logo** area, paste the graphic, which must be a 256-color BMP. The preferred image size is 130 pixels by 125 pixels.
- (optional) In the **Letterhead like Single Line Address** field, enter the address as it should appear on letterheads generated by iMIS.
- From the **Taxation Method** options, choose an appropriate taxation method.
- (optional, Fundraising) In **Interest Code**, enter or select (press **Ctrl+L**) the interest code associated with each fund.
- (optional, Fundraising) In the **Registration Number** field, enter the registration number or tax identification number associated with the organization or fund. All Fundraising organizations must have a registration number (Canada) or tax identification number (U.S.) to claim and verify tax-exempt status.

5. Click **Save**.

> **Note:** Exit and reopen iMIS Advanced Accounting Console to see and use the new **Org Code**. Others logged in with iMIS Advanced Accounting Console will also not see the new **Org Code** until they restart.

Modifying references to field names

There are several places in iMIS to enter field names, for example, **Configure > Membership > Configure membership options > Advanced > Name/Address FindList Fields**. Failing to propagate field name changes across all locations will result in errors.

> **Note:** Since these field names are defined during module-level setup, warn all staff who will be configuring iMIS against changing field names without notifying system administrators.

Once a field name is changed, open the following areas to change values to match:

- Module system setup screens
- Ad hoc searches and customized reports
- Special pricing in Orders
- Automatic generation of function/meeting names

- Billing special pricing
- Anywhere else that you know explicit field names are referenced

Loading tab-delimited files to update zip codes

With each new release of iMIS, ASI creates a set of tab-delimited files and posts them along with a command line DTS utility for loading them into your iMIS database. Loading the latest tab-delimited files into your iMIS database ensures that your Zip_Code table has the latest USA zip code information available at the time of release.

Do the following to load tab-delimited files:

1. Log on to iMIS Advanced Accounting Console.
2. Configure **Customer Setup** before loading the tab files.
   - Go to **Configure > Membership > Configure membership options > Address and Notes**.
   - Specify the **Zip Options**.
3. From the Downloads area of the Support site, locate and download the following files:
   - The command line DTS utility for loading the latest set of tab-delimited files
   - The latest set of tab-delimited files
4. Follow the instructions on the Support site and in the downloaded files for running the DTS package.

**Defining user records and allocating licenses**

Allocating types of licenses

The proportion of licensed Full and Casual users is determined by the **Users Allowed** field and the **CASUAL*nn*** license keyword entered into the **Products** field. The **CASUAL*nn*** value specifies the total number of licensed **Casual** users. The **Users Allowed** value specifies the total number of licensed **Casual** and **Full** users. The **Users Allowed** value, minus the number in the **CASUAL*nn*** keyword, specifies the total number of licensed **Full** users. For example, if the **Users Allowed** value is **40** and you add a **CASUAL15** keyword in the **Products** field, you can enable 25 **Full** users and **15** Casual users.

> **Note:** While you define user records, track your allocation of **Full** or **Casual** users as allowed for by your named license agreement, so that you avoid exceeding that allowance and creating work for yourself to fix any failed user record definitions.

Defining user records for new installs

For new installs, you must define user records for your initial set of Full and Casual users, because all iMIS users require a defined user record to access iMIS. A new installation auto-creates only one iMIS user record: the special **MANAGER** user record that is the effective super admin of iMIS.

Updating user records after upgrades

After upgrading, all auto-converted user records are set as **Full** users (which you will need to adjust per your licensing), and all are disabled. Use the **MANAGER** account to update the **System Setup** window with the licensing values that specify the number of **Full** and **Casual** users allowed. Set the auto-converted user records to the appropriate user class, and the records will be enabled as each user logs in. You cannot enable more **Full** or **Casual** users than allowed by your license. If you exceed your count, keep those users disabled or set them to **Public**.

Default password length requirements

By default, passwords must contain at least seven characters with at least one numeric character and at least one alphabetic character. You can change the default password complexity requirements by editing the **C:\ Program Files (x86)\ASI\iMIS\Net\web.-config** file for the iMIS application. Otherwise, users will get login errors.

Public users

Although you also can manually create user records for **Public** users, you rarely need to. Anonymous visitors to your website (see Types of iMIS licenses and views) can register themselves, which automatically does the following:

1. Creates a contact record of **The default Customer Type** defined in **Settings > Organization settings**.
2. Creates an associated user record and authentication record for the contact record.
3. Assigns that user record to the **Public** user class.

### Changing the default layout for SSRS reports

Your iMIS database stores configuration parameters that control the layout and design of reports generated through Reporting Service (SSRS). These parameters in the **SystemConfig** table control the look and feel of SSRS reports being created system-wide.

For example, if you have international customers, a helpful change might be to configure the reports for A4 format (21.0 x 29.7 cm).

> **Note:** Like Word templates, these configuration settings control new reports only; layout changes do not propagate to existing reports. Therefore, test and perfect your settings before creating new SSRS reports, to minimize the need to repeat your work again later.

Do the following to change SSRS layout parameters:

1. Use your favorite SQL query tool to access the **SystemConfig** table in iMIS.
2. Change the values as needed.

   > **Note:** For valid color names and samples, search the web for **aspnet named colors**.

3. Restart IIS (or reboot the server) to clear the cache and apply the changes.

SSRS layout parameters

You can generate the following table using this query:

```
select ParameterName, ParameterValue, Description
from SystemConfig where ParameterName like 'SSRS%'
order by ParameterName
```

Click to view table

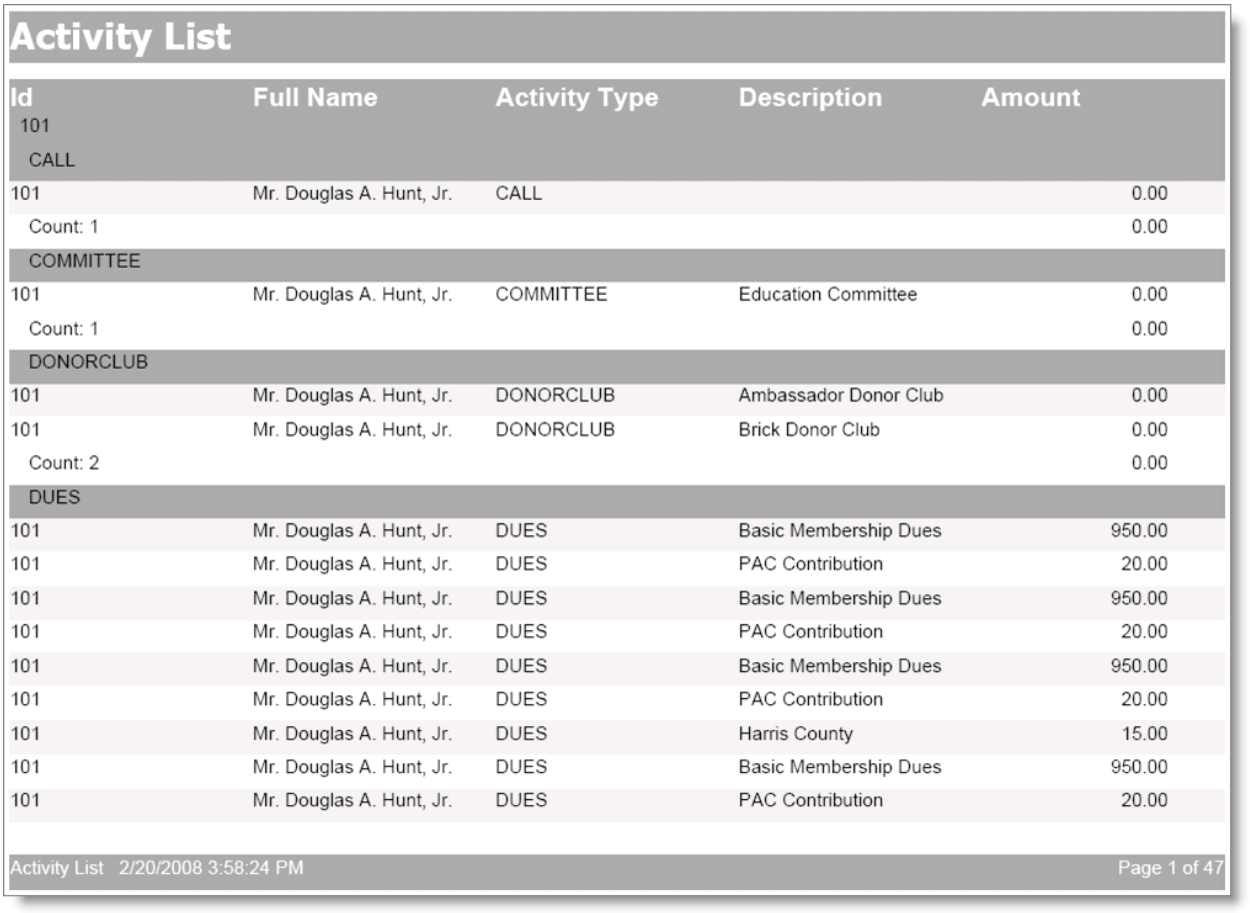
| SSRS.[ParameterName] | Value | Description |
|---|---|---|
| .BodyReportItemsHeight | 0.2 | Body report items height (units only, no UOM) used when generating SSRS reports |

| SSRS.[ParameterName] | Value | Description |
|---|---|---|
| .BottomMargin | 0.5 | Bottom margin (units only, no UOM) used when generating SSRS reports |
| .DetailFont | Arial | Detail font for generated SSRS reports |
| .EnableGreenBar | false | Turns on alternating background color in rows of generated SSRS reports |
| .FieldHeaderBackgroundColor | White | Named color used when generating SSRS reports |
| .FieldHeaderForegroundColor | Black | Named color used when generating SSRS reports |
| .FooterHeight | 0.3 | Footer height (units only, no UOM) used when generating SSRS reports |
| .GreenBarBackgroundColor | LightSteelBlue | Named background color used when EnableGreenBar is true for generated SSRS reports |
| .GroupHeaderBackgroundColor | LightSteelBlue | Named color used when generating SSRS reports |
| .GroupHeaderForegroundColor | Black | Named color used when generating SSRS reports |
| .HeaderFont | Arial | Narrow Header font for generated SSRS reports |
| .HeaderHeight | 0.25 | Header height (units only, no |

| SSRS.[ParameterName] | Value | Description |
|---|---|---|
| | | UOM) used when generating SSRS reports |
| .LandscapeTotalWidth | 11 | Total page width (units only, no UOM) for landscape orientation paper used when generating SSRS reports |
| .Language | en-US | Default language used when generating SSRS reports |
| .LeftMargin | 0.5 | Left margin (units only, no UOM) used when generating SSRS reports |
| .PageFooterBackgroundColor | White | Named color used when generating SSRS reports |
| .PageFooterForegroundColor | Black | Named color used when generating SSRS reports |
| .PageHeaderBackgroundColor | White | Named color used when generating SSRS reports |
| .PageHeaderForegroundColor | Black | Named color used when generating SSRS reports |
| .PortraitTotalWidth | 8.5 | Total page width (units only, no UOM) for portrait orientation paper used when generating SSRS reports |
| .RightMargin | 0.5 | Right margin (units only, no UOM) used when generating SSRS reports |

| SSRS.[ParameterName] | Value | Description |
|---|---|---|
| .SeparatorLineColor | DarkBlue | Color of the separator line for generated SSRS reports |
| .TableCellWidth | 1.8 | Width for table cells (units only, no UOM) used when generating SSRS reports |
| .TopMargin | 0.5 | Top margin (units only, no UOM) used when generating SSRS reports |
| .UnitOfMeasure | in | Unit of measure used when generating SSRS reports |

Click to view image



**Activity List**

| Id | Full Name | Activity Type | Description | Amount |
|---|---|---|---|---|
| 101 | | | | |
| CALL | | | | |
| 101 | Mr. Douglas A. Hunt, Jr. | CALL | | 0.00 |
| Count: 1 | | | | 0.00 |
| COMMITTEE | | | | |
| 101 | Mr. Douglas A. Hunt, Jr. | COMMITTEE | Education Committee | 0.00 |
| Count: 1 | | | | 0.00 |
| DONORCLUB | | | | |
| 101 | Mr. Douglas A. Hunt, Jr. | DONORCLUB | Ambassador Donor Club | 0.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DONORCLUB | Brick Donor Club | 0.00 |
| Count: 2 | | | | 0.00 |
| DUES | | | | |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | Basic Membership Dues | 950.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | PAC Contribution | 20.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | Basic Membership Dues | 950.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | PAC Contribution | 20.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | Basic Membership Dues | 950.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | PAC Contribution | 20.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | Harris County | 15.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | Basic Membership Dues | 950.00 |
| 101 | Mr. Douglas A. Hunt, Jr. | DUES | PAC Contribution | 20.00 |

### Optional products

iMIS Analytics brings true business intelligence to your iMIS solution, giving you the power to understand and analyze the performance of your organization in ways that are tedious or impossible with standard reporting tools. For more information, see Analytics implementation.

## Configure SQL, IIS, SSL and services

### Configuring iMIS for SQL Server Sessions

When a user interacts with the iMIS website, information and settings related to that user are held on the server in a session. By default, the session is held in memory, but it is also possible to configure the website to hold the session information in a SQL Server database.

Users might want to consider this option if interested in reducing memory overhead in their web server. If using a web farm to allow sharing across servers, using this option will allow users to access settings through the database. SQL Server Sessions will also allow session settings to be maintained even if a web server needs to be recycled. However, because this option always accesses session settings from the database, performance might be slightly slower.

> **Note:** These instructions are of a technical nature, and are only be performed by a website administrator. Further information about SQL Server sessions is available on the Microsoft website.

> **Note:** This feature is available for Advanced Accounting Console and the mobile, member, and staff sites.

Before making this change to your live website, make any desired changes on a test copy of the live site and test thoroughly to ensure that the configuration changes meet your unique needs. Pay special attention to third-party content items, as they might not have been tested to run with sessions in SQL server.

> **Warning!**
>
> Do not configure iMIS for SQL Server Sessions if you are currently using Process Manager.

### Adding SQL Session database to SQL Server

The SQL Session database is separate from the iMIS database. It can be found on the web server or on another server if you use a web farm.

1. Depending on your system, run the command to add a special SQL Session database called **ASPState** to your SQL Server.
   You might want to put this into a batch file with a **.cmd** extension and run it, or open a command prompt and paste it into the command line.

- 64-bit operating systems

```
"C:\Windows\Microsoft.NET\Framework64\v4.0.30319\aspnet_regsql" -S <server> -U <uid> -P <pwd> -ssadd -sstype p
```

- 32-bit operating systems

```
"C:\Windows\Microsoft.NET\Framework\v4.0.30319\aspnet_regsql" -S <server> -U <uid> -P <pwd> -ssadd -sstype p
```

Replace `<server>` with your server name, `<uid>` with a valid SQL Server userID, and `<pwd>` with the appropriate password.

2. Open **SQL Server Management Studio** to see the new **ASPState** database.
3. If you are using trusted connections to connect to the server, change the ownership of the state database to **sa**, or equivalent user if **sa** is not being used, after creation. In SQL Server Management Studio run the following:

```
use ASPState
exec sp_changedbowner ‘sa’, ‘true’
```

4. If you are using SQL authentication, create a user and password for session state to use. At minimum, this user should have permissions to execute the stored procedures in the ASPState database.

> **Note:** If you want to set your session back to memory, use the following: `<sessionState mode="InProc" stateConnectionString="tcpip=127.0.0.1:42424" sqlConnectionString="data source=127.0.0.1;user id=sa;password=qa" cookieless="false" timeout="120"/>`
>
> If you would like to have a session longer or shorter than the default of 120 minutes, change the timeout value.

### Updating Web.Config for SQL Server Sessions

Do the following to update the web.config files for SQL Server Sessions:

1. Replace the existing sessionState entry with one similar to below. Replace `<server>` with your server name, `<uid>`with a valid SQL Server userID, and `<pwd>` with the password:

```
<sessionState
mode="SQLServer"
sqlConnectionString="data source=<server>;user id=<uid>;password=<pwd>"
cookieless="false" timeout="120"/>
```

2. If using SSRS reports, add the trust entry into the system.web section:

```
</assemblies>
</compilation>
<trust legacyCasModel="true" level="Full"/>
<httpRuntime executionTimeout="3600" maxRequestLength="10240"
```

### Configuring IIS 7.5 or IIS 8 to run iMIS

These configuration settings apply to all systems running IIS 7.5 or 8 (Windows Vista/7, Windows Server 2008 R2, and Windows Server 2012) where iMIS server components are installed.

The iMIS installer applies the setting for the application pool setting only. The iMIS installer does not verify that the application roles are installed. You can follow these procedures if you are configuring your system manually or want to implement IIS configuration tips.

Installs to the default website are no longer supported. If a previous install used the default website, you are required to enter a new virtual root name. Enter the name and click **Next**. The upgrade converts the default website to use the virtual root name you provided. See Redirecting to the virtual directory URL for information about redirecting the URL of your default website to the URL of the virtual directory.

Specifying the .NET application pool
Do the following to specify the .NET application pool:

1. Go to **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
2. In the **Connections** pane, select the iMIS website.
3. In the **Actions** pane, select **Basic Settings**.
4. Click **Select**.
5. From the drop-down list, select **iMISApp .NET AppPool**.
6. Click **OK** on all dialog boxes.
7. Restart IIS.

### Configuring SSL

SSL is a protocol layer placed between a reliable connection-oriented network protocol layer (TCP/IP) and an application protocol layer (HTTP).

Enabling SSL provides extra security for the site by encrypting information. This security is especially important at checkout, where users may enter credit card information.

An administrator can enable SSL for content item-based sites at the Content Record level. For any content record that contains a content item that you want to operate using SSL, enable the **Content is secure (https://)** property.

> **Note:** iMIS recommends using TLS instead of SSLv3 for enhanced security.

> **Note:** For detailed instructions on enabling SSL for a RiSE site, see Configuration options: websites.

### Running Crystal Reports in 32-bit mode

(New installs and upgrade of iMIS on 64-bit machines will set the iMIS application pool to run in 64-bit mode. This enables the w3wp.exe (IIS Worker Process) to run in 64-bit mode. This allows the w3wp.exe process to use more of the available installed memory (in 32-bit mode, the process is limited to 1.2 GB).

> **Note:** 32-bit processes run in a 4 GB memory space. Of that, 2 GB is reserved for the operating system. The .NET framework uses approximately half of the remaining memory, so iMIS apps have access to approximately 1 GB of memory. This number varies based on environmental issues.

However, Crystal Reports for IQA do not function when iMIS installs are running in 64-bit mode. To access Crystal Reports for IQA, you must set the iMIS application pool to 32-bit, and the web configuration file must be modified to load the Crystal runtime code.

Do the following to enable web Crystal Reports:

1. Open the web configuration file:
   **C:\Program Files (x86)\ASI\iMIS\Net\web.config**
2. Find the following block of code:

```
<!--<add assembly="CrystalDecisions.Shared, Version=9.2.3300.0, Culture=neutral,
PublicKeyToken=692fbea5521e1304" />-->
    <!--<add assembly="CrystalDecisions.CrystalReports.Engine, Ver-
sion=9.2.3300.0,
Culture=neutral, PublicKeyToken=692fbea5521e1304" />-->
    <!--<add assembly="CrystalDecisions.Web, Version=9.2.3300.0,
Culture=neutral, PublicKeyToken=692fbea5521e1304" />-->
    <!--<add assembly="CrystalDecisions.ReportSource, Version=9.2.3300.0,
Culture=neutral, PublicKeyToken=692fbea5521e1304" />-->
    <!--<add assembly="CrystalDecisions.Enterprise.Framework, Ver-
sion=9.2.3300.0,
Culture=neutral, PublicKeyToken=692fbea5521e1304" />-->
    <!--<add assembly="CrystalDecisions.Enterprise.InfoStore, Version=9.2.3300.0,
```

```
Culture=neutral, PublicKeyToken=692fbea5521e1304" />-->
            <!--<add verb="GET" path="CrystalImageHandler.aspx"
type="CrystalDecisions.Web.CrystalImageHandler, CrystalDecisions.Web,
Version=9.2.3300.0, Culture=neutral, PublicKeyToken=692fbea5521e1304" val-
idate="false"
/>
```

3. Uncomment these lines so that they read like the following:

```
<add assembly="CrystalDecisions.Shared, Version=9.2.3300.0, Culture=neutral,
PublicKeyToken=692fbea5521e1304" />
      <add assembly="CrystalDecisions.CrystalReports.Engine, Version=9.2.3300.0,
Culture=neutral, PublicKeyToken=692fbea5521e1304" />
      <add assembly="CrystalDecisions.Web, Version=9.2.3300.0,
Culture=neutral, PublicKeyToken=692fbea5521e1304" />
      <add assembly="CrystalDecisions.ReportSource, Version=9.2.3300.0,
Culture=neutral, PublicKeyToken=692fbea5521e1304" />
      <add assembly="CrystalDecisions.Enterprise.Framework, Version=9.2.3300.0,
Culture=neutral, PublicKeyToken=692fbea5521e1304" />
      <add assembly="CrystalDecisions.Enterprise.InfoStore, Version=9.2.3300.0,
Culture=neutral, PublicKeyToken=692fbea5521e1304" />
            <add verb="GET" path="CrystalImageHandler.aspx"
type="CrystalDecisions.Web.CrystalImageHandler, CrystalDecisions.Web,
Version=9.2.3300.0, Culture=neutral, PublicKeyToken=692fbea5521e1304" val-
idate="false"
/>
```

4. Reset the iMIS application pool to run in 32-bit mode. Go to **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
5. Under **Connections**, go to **<*machine_name*> (<*machine_name*>\Administrator) > Application Pools**.
6. Right-click on **iMISapp**.
7. Select **Advanced Settings**.

8. Set **Enable 32-Bit Applications** to **True**.
9. Click **OK**.

Enabling 32-bit apps (Crystal Reports)

If your system is 64-bit, you must enable 32-bit applications in order to serve and run Crystal Reports.

> **Note:** This setting only applies for systems using **Process Manager** or **Campaign Management**.

Do the following to enable 32-bit apps (Crystal Reports):

1. Go to **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
2. In the **Connections** pane, select **Application Pools**.
3. Select **Classic .NET AppPool**.
4. In the **Actions** pane, select **Edit Application Pool > Advanced Settings**.
5. In the **Advanced Settings** window, ensure **Enable 32-Bit Applications** (second in the list) is set to **True**.

> **Note:** Lines in the web.config file that reference Crystal Reports must be uncommented. See Running Crystal Reports in 32-bit mode for more information.

### Optimizing timeouts on iMIS servers

You can extend the timeout settings on an iMIS server to optimize it for testing and demo usage. Extending timeouts prevents problems that come from letting iMIS sit idle for long periods.

> **Note:** Do not set excessive timeouts (especially the session timeout) on production sites: idle sessions sitting for long periods can exhaust the server's memory.

Many apparent iMIS problems are caused by timeout settings, both default session timeouts in iMIS-related web.config files and timeout settings in ASP.NET itself.

- Timeouts defined in each application's web.config file:
- The idle session timeout ends a user's iMIS session after 20 minutes of inactivity.
- The idle authentication ticket timeout defaults to 30 minutes, unless the **Remember Me** option (a checkbox on the login screen) is enabled.
- Timeouts for the ASP.NET application pool:
- The **Shutdown worker processes** timeout kills idle processes after 20 minutes. If the iMIS server gets no request within 20 minutes, it restarts iMIS, and the application startup takes time.
- The **Recycle worker processes** timeout forces a complete recycle (restart) every 1740 minutes (29 hours), even for non-idle worker processes.

> **Warning!**
>
> Do not overdo the fix. Excessive timeouts worsen the performance and memory usage of your server, and disabling Application Pool recycling slows performance over time, as memory cannot be released by Task Manager's **w3wp.exe** process, which is used by IIS to launch .NET application pool processes. Therefore, make changes carefully, and test their impacts.

Increasing session-specific timeouts

If **Page Not Available** errors or logon/password-related windows are displayed erroneously, increase the session-specific timeout in web.config files associated with iMIS.

Do the following to increase session-specific timeouts:

1. On the iMIS server, open each iMIS-related web.config file for editing:
- **iMIS** default locations:
- **C:\Program Files (x86)\ASI\iMIS\Net**
- **C:\AsiPlatform\Asi.Scheduler_[your instance]**
- **iMISpublic** default location – **C:\Program Files (x86)\ASI\iMIS\iMIS_public**
2. Locate the `<sessionState>` element and modify the timeout attribute, for example:

```
<sessionState mode="InProc" stateConnectionString="tcpip=127.0.0.1:42424"
sqlConnectionString="data source=127.0.0.1;user id=sa;password="
cookieless="false" timeout="120" />
```

**Note:** For high traffic, it is recommended to set this value between 60 to 240 minutes. For low traffic, set between 720 to 1440 minutes.

3. Repeat this process for each iMIS server.

Improving application pool timeouts

Do the following to improve application pool timeouts:

1. Go to **Start > Administrative Tools > Internet Information Services (IIS) Manager** on the iMIS server.
2. In the **Connections** pane, select **Application Pools**.
3. In the **Application Pools** pane, select **iMISapp AppPool**.
4. In the **Actions** pane, select **Edit Application Pool > Recycling**.

**Note:** Do not select **Recycle**.

5. In the **Recycling Conditions** window, ensure all checkboxes are clear (unchecked).
6. Click **Next**, then click **Finish**.
7. In the **Actions** pane, select **Edit Application Pool > Advanced Settings**.
8. In the **Advanced Settings** window, under **Process Model**, set **Idle Time-out (minutes)** to zero (**0**).
9. Click **OK**.
10. In the **Connections** pane, select **Sites**.
11. Select **Default Web Site**.
12. In the **Actions** pane, select **Manage Web Site > Advanced Settings**.
13. In the **Advanced Settings** window, under **Connection Limits**, set **Connection Time-out (seconds)** to zero (**0**).
14. Click **OK**.
15. Restart IIS.

**Resetting the application pool recycle schedule**

iMIS application pools will recycle at a randomly generated time each day between 1:00 am and 3:00 am. Tasks that are scheduled during this time might be interrupted, and interrupted tasks cannot be recovered. You can edit the **applicationHost.config** file to reset this application pool recycle schedule. Do the following:

1. Open the **applicationHost.config** file for editing. The file can be found in the **C:\Windows\System32\inetsrv\config** directory.
2. Locate the following snippet of code:

```
<add name="AsiSchedulerPool" autoStart="true" enable32BitAppOnWin64="false"
managedRuntimeVersion="v4.0"
managedPipelineMode="Integrated" startMode="AlwaysRunning">
    <recycling>
        <periodicRestart time="00:00:00">
            <schedule>
                <add value="02:32:00" />
            </schedule>
        </periodicRestart>
    </recycling>
```

3. Add a new value for the `<schedule>` parameter. For example, if you wanted the application pool recycle to initiate at 1:15 am, change the `<system>` parameter value to the following:

```
<schedule>
    <add value="01:15:00" />
</schedule>
```

**Enabling concurrent Casual and Full access by separating authentication cookies**

If your staff users need to run both administrative and staff views on the same workstation concurrently, then you need to create a separate **Casual** site (virtual directory) for them.

To enable **Casual** and **Full** access at the same time, you must separate the authentication cookies. This lets you open administrative and staff clients simultaneously for different license levels, without logins colliding.

## Configure the iMIS SOA web service

**Warning!**

iMIS SOA installs as an enabled service, so be sure to secure the service before going live.

### Preparing your SOA host

For the SOA service to receive connections and pass Windows security, configure the following on the machine that is hosting the SOA service:

1. Install iMIS. This installs the SOA service host with the correct database connection information.
2. Disable simple file sharing. In Windows Explorer, go to **Folder Options > View > Advanced settings**.

> **Note:** Missing this can cause the following error:
> A remote side security requirement was not fulfilled during authentication. Try increasing the ProtectionLevel and/or ImpersonationLevel.

### Securing your SOA service for external access

If IIS is installed on your computer, then iMIS SOA is integrated with IIS so there is no separate service. The default port is 808. You can change this port through IIS administration. For example:

```
<setting key="EntityManagerDefaultBaseUri" value-
e="net.tcp://10.10.10.10:808/NetTcp"/>
```

> **Note:** You can use a TCP port other than port 808 if it is a valid TCP port and is not in use by any other service. Because the default port for net.tcp is 808, ASI recommends that you increment from there.
> The 10.10.10.10 IP address is an example only. Use your own IP address.

> **Note:** If you change the default port, you must change the **EntityManagerDefaultBaseUri** key in the site web.config files, as well as any client that uses SOA.

Do the following to help prevent unauthorized access through SOA:

1. Limit access to this port to specifically trusted IP addresses only:
   - At minimum, the addresses of any iMIS servers that will be using SOA, or hosting content items that use SOA.
   - The addresses of any other machines hosting in-house applications that use Windows Communication Foundation (WCF) to consume the SOA service.

   > **Warning!**
   >
   > Caution: Do not make this endpoint available externally. For B2B and other external scenarios, use the Soap11 (username/password required) endpoint.

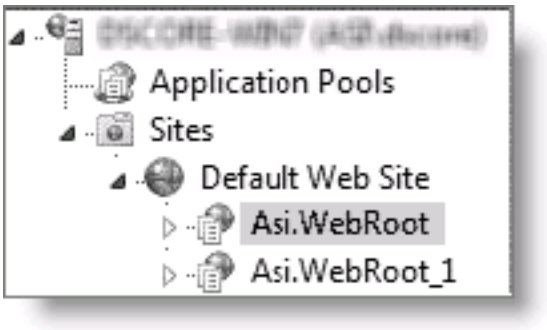
2. To secure the host service's port, configure **Internet Protocol Security (IPSec)** to prevent unauthorized access. For complete walkthroughs of IPSec on Windows, see Microsoft's IPSec guidance.

**Enabling the SOA service protocol**

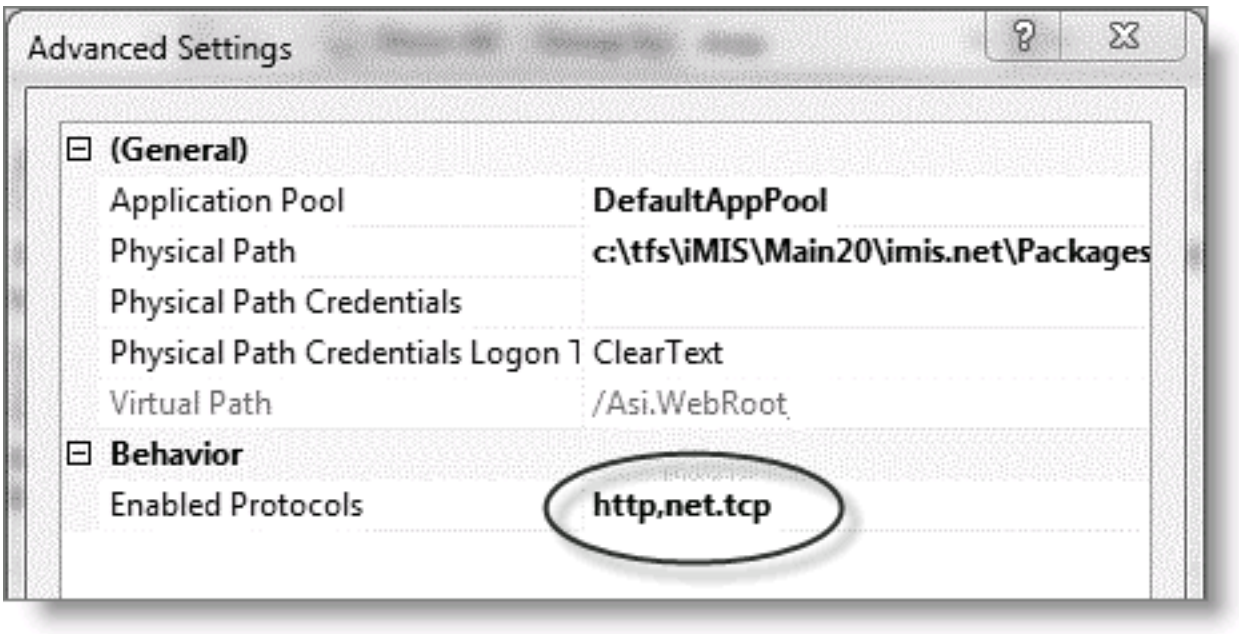
Using IIS, you will not see the ASI SOA host service because it is integrated under IIS. Because of this integration, you must do the following to turn on NetTcp for your sites, for each virtual root you create:

1. Open Internet Information Services (IIS) Manager on the iMIS server.
2. In the Connections pane, select Sites.
3. In the Sites pane, select the virtual root.

Click to view image




4. In the Actions pane, select Manage Web Site > Advanced Settings.
5. Make sure net.tcp appears in Enabled Protocols:
   Click to view image




6. Repeat this process for each of your virtual roots.

> **Note:** After you change any iMIS system configuration item, restart the SOA service to ensure that the changes take effect.

### Restricting services access using IP address

By default, iMIS SOA provides the following levels of security to customer data:

- Secure Sockets Layer (SSL)
- A required user name and password

- User type access rights (ClaimsMap)
  In addition, you can protect your customer data by disabling external access, or by restricting SOA or web services access to use by internal systems and trusted partners only. To achieve this, use your Microsoft IIS server to restrict services access by IP address. Regardless of which IIS server version you have, the approach centers on the **EntityService.svc** file to restrict SOA or **ASICommon/Services** directory in the web root to restrict access to web services. Choose one of the following strategies:

- **DISABLE** – If you do not need outside access to your database, disable external access by renaming **EntityService.svc** or **ASICommon/Services**.
- **RESTRICT** – Add another level of security by applying the specific IP address restrictions to **EntityService.svc** or **ASICommon/Services**.

  > **Note:** To use **EntityService.svc**, you must have an SSL certificate from a certificate authority installed.

  Disabling all external services access
  Do the following to disable access to external services:

1. Locate **EntityService.svc** or **ASICommon/Services** in the web root.
2. Rename the file or directory (such as *.bak).

   > **Note:** There is a second **EntityService.svc** file in the directory **/NetTcp**. Do not rename or delete this second file, as it is provides internal-only access (using a protocol not available to external users), and it is required for the operation of iMIS.

   Restricting services access through IP address
   By default, IIS installations do not enable IP restrictions, so restricting IPs requires a few more steps.

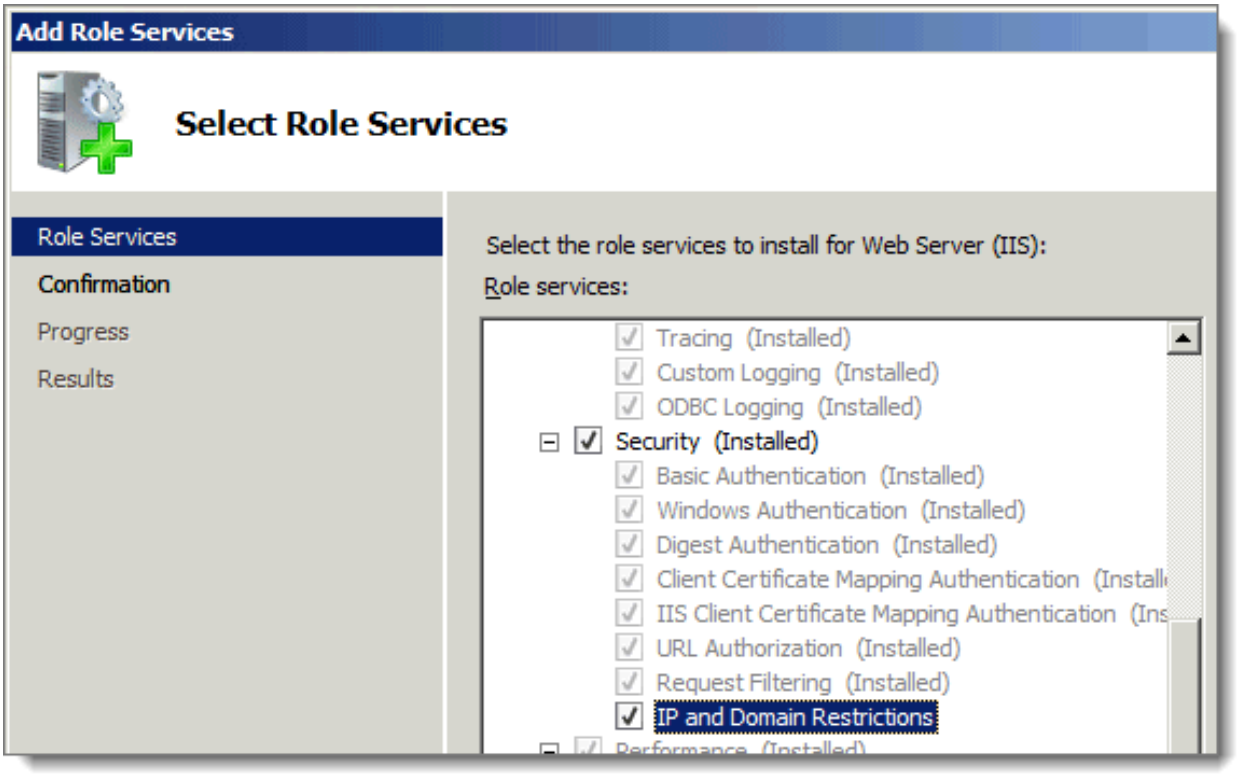
   Do the following to restrict services access by IP:

1. Ensure that your server has IP security enabled.
- Windows 2008/R2:

a. Go to **Start > Administrative Tools > Server Manager**.
b. Select **Roles > Web Server**.

c. Select **Add Role Services**.
d. Ensure **IP and Domain Restrictions** is checked.

Click to view image



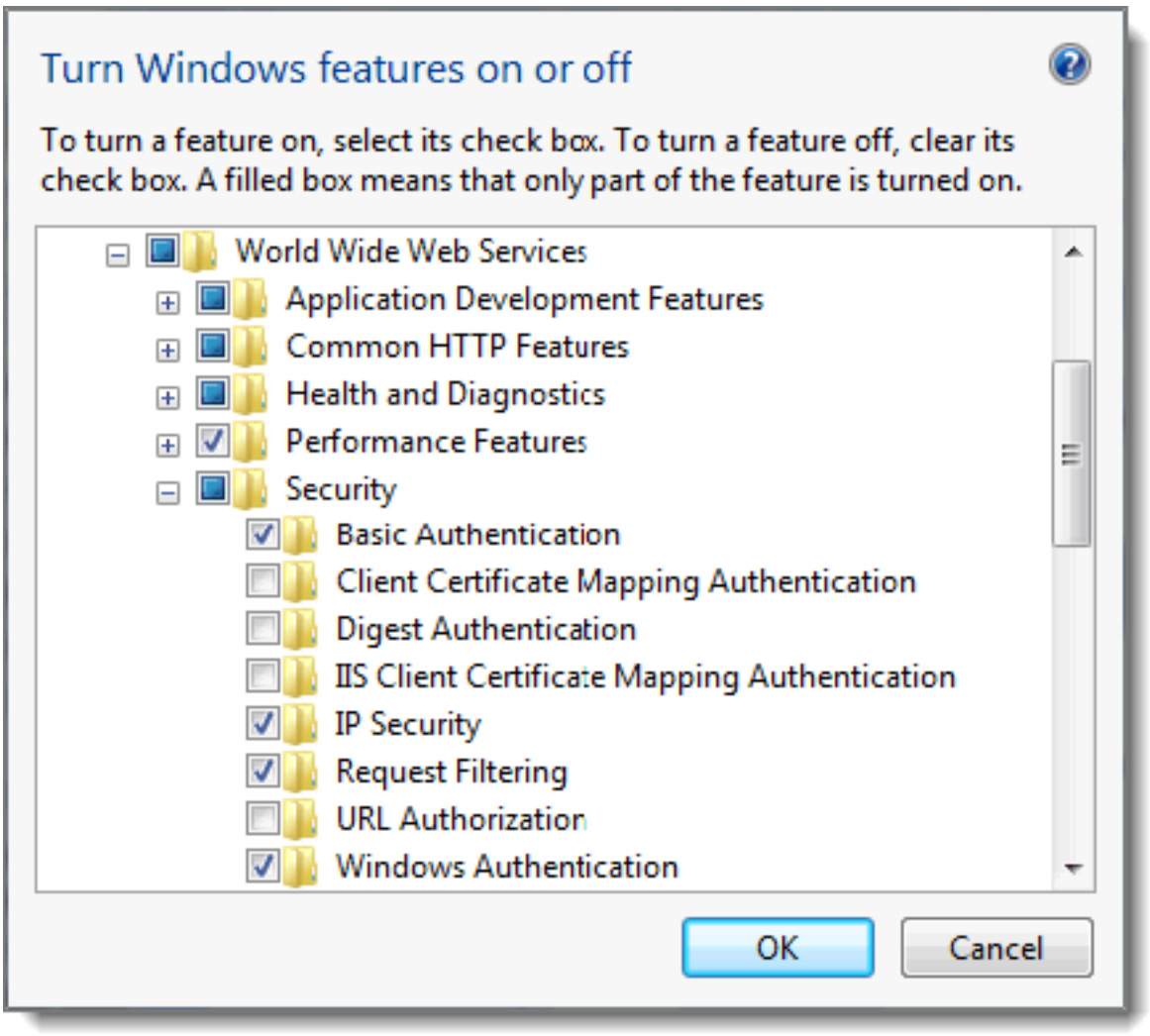

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- Windows 7:

a. Go to **Start > Control Panel > Programs and Features**.
b. Select **Turn Windows features on and off**.
c. Go to **World Wide Web Services > Security**.
d. Ensure **IP Security** is checked.
e. Click **OK** and close.

---

Click to view image




2. Enable read/write on IIS IPv4 Address and Domain Restrictions:

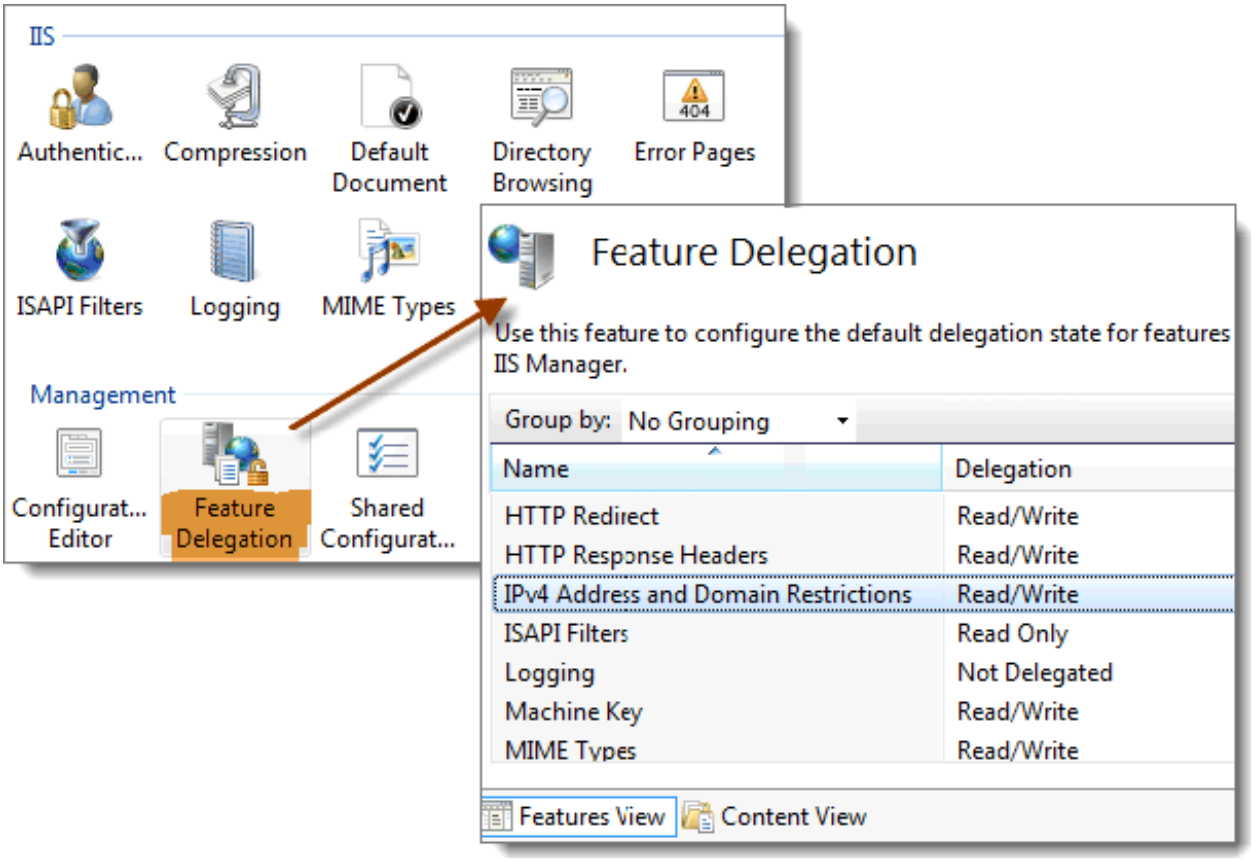
a. Open **Internet Information Service Manager**.

b. In the **Connections** pane, select the machine name.

c. In the **<*Machine Name*> Home** pane, click **Feature Delegation**.

d. Ensure that **IPv4 Address and Domain Restrictions** are set to **Read/Write**.

Click to view image




3. Add IP restrictions to the web.config files:

a. Locate the web.config files in the root of the website:

- **C:\Program Files (x86)\ASI\iMIS\Net\web.config**
- **C:\AsiPlatform\Asi.Scheduler_[*your instance*]\web.config**

b. Right-click on the web.config file.

c. Select **Properties**.

d. Ensure the **Read-only** check box is clear.

e. Open the web.config file with a text editor.

f. At the bottom of the file, above the `</configuration>` line, add the appropriate IP restrictions for the services to which you want to restrict access:

SOA:

```
<location path="EntityService.svc">
    <system.webServer>
```

```
    <security>
    <ipSecurity allowUnlisted="false">
        <add ipAddress="127.0.0.1" allowed="true" />
    </ipSecurity>
    </security>
    </system.webServer>
</location>
```

MembershipWebService:

```
<location path="/AsiCommon/Services/Membership/MembershipWebService.asmx">
    <system.webServer>
    <security>
    <ipSecurity allowUnlisted="false">
        <add ipAddress="127.0.0.1" allowed="true" />
    </ipSecurity>
    </security>
    </system.webServer>
</location>
```

ClientLog:

```
<location path="/AsiCommon/Services/ClientLog/loggingservice.asmx">
    <system.webServer>
    <security>
    <ipSecurity allowUnlisted="false">
        <add ipAddress="127.0.0.1" allowed="true" />
    </ipSecurity>
    </security>
    </system.webServer>
</location>
```

QueryService:

```
<location path="/AsiCommon/Services/Query/queryservice.asmx">
    <system.webServer>
    <security>
    <ipSecurity allowUnlisted="false">
        <add ipAddress="127.0.0.1" allowed="true" />
    </ipSecurity>
    </security>
    </system.webServer>
</location>
```

SiteMapWebService:

```
<location path="/AsiCommon/Services/SiteMap/SiteMapWebService.asmx">
    <system.webServer>
    <security>
    <ipSecurity allowUnlisted="false">
        <add ipAddress="127.0.0.1" allowed="true" />
    </ipSecurity>
    </security>
    </system.webServer>
</location>
```

For example, these IP restrictions restrict external/http/soap access to only the local computer

Testing external access to services

A simple test determines if external web access is allowed to your site with a browser. It is important to make such a test to ensure the procedure has been applied correctly.

1. Go to your main iMIS web site.
2. Select the address, such as **www.<*mywebsite*>.com/EntityService.svc** or the full URL for the web service (for example, **www.<*mywebsite*>.com /AsiCommon/Services/Membership/MembershipWebService.asmx**).

- If access is allowed, a simple display starting with EntityService Service or **ASICommon/Services** should be displayed.
- If you have restricted access, a form of an access denied message should be displayed.

> **Note:** A username and password are still required to access data.

**Securing the web services**

Security for these web services is set in the web.config file, which defaults to **C:\Program Files (x86)\ASI\iMIS\Net**.

Securing QueryService

The **QueryService** web service gives an administrator access to query results for a specific query or for the default query, if the document folder is specified.

By default, the web.config file value of the AppSetting key `"secureQueryWebService"` is set to `"true"`. When this value is `"true"`, only authenticated users with the SysAdmin role can access or run queries through the QueryService web service. When this value is set to `"false"`, anyone can access or run queries through this web service.

The **QueryService.asmx** web service file is located at **http://<*domainname*>/imis/AsiCommon/Services/query/queryservice.asmx**.

Securing MembershipWebService

**MembershipWebService** gives an administrator access to specific membership operations, such as changing user passwords, user names, logins, and so forth.

By default, the web.config value of the AppSetting key `"secureMembershipWebService"` is set to "true". When this value is `"true"`, only authenticated users with the SysAdmin role can access or change this membership data through the MembershipWebService web service. When this value is set to `"false"`, anyone can access or change this membership data through this web service.

The **MembershipWebService.asmx** web service file is located in the membership folder at **http://<*domainname*>/imis /AsiCommon/Services/membership/membershipwebservice.asmx**.

> **Note: ASICommon/Services** contains the Membership Web Service used for logging in. If you add security on **ASICommon/Services**, you must grant access to each computer using the Advanced Accounting Console. Secure the group using subnet.

## Go live with your website

To roll out iMIS to your web client users, email them their logon information, and specify which browsers and URL to use.

To roll out iMIS (both installs and upgrades) to your iMIS client users, email them their logon information and tell them how to download the pre-configured installer to put Advanced Accounting Console on their computers. You can copy the following procedures to your internal support site or paste them directly into email.

> **Warning!**
>
> Be sure to change the default **MANAGER** password before going live. In Advanced Accounting Console, go to **System Setup > Security administration > Users**, find **MANAGER** with a query on **Users**, and edit the **User Credentials**.

## iMIS Maintenance

### Implementing a backup plan

Backing up your iMIS database ensures that your data is secure. Having a solid monthly routine in place minimizes the amount of data you could lose in a disaster.

> **Note:** Avoid using third-party backup SQL agents, which might cause problems when restoring your database.

Initial backup tasks

- Schedule SQL Server Agent to back up your iMIS database nightly.
- Configure the nightly backup to save the backup file (*.bak) to tape.
- Set up SQL Server Agent to notify you if the backup fails.

Monthly backup tasks

- Each month, test your backups. Restore the file to a temporary database, open iMIS, and verify that it works.
- After you verify the backup, pull a tape from the rotation and store it off-site, as a fail-safe.

**Reorganizing and rebuilding database indexes regularly**

Be sure to set up a scheduled maintenance plan in SQL Server to reorganize and rebuild your iMIS database indexes on a routine basis, so that you have the best possible system performance. The larger the iMIS database, the more important this becomes in keeping performance up.

See MSDN to find out more about creating a maintenance plan. While every database is different and will have different requirements, a common routine is to reorganize your indexes daily and to rebuild them weekly.

**Changing application server host names**

If the name of the server that hosts the iMIS server ever changes, you must uninstall and reinstall iMIS to enable remote installations and future upgrades of iMIS.

**Changing SMTP server settings**

The SMTP server that you specify during installation is written to the web.config files for each iMIS application installed during that session. If you need to change SMTP server settings after iMIS has been installed, you must manually edit the respective web.config files to specify the new SMTP server.

Do the following to change SMTP server settings:

1. Modify the web.config files for all instances of your **iMIS** and **iMISpublic** applications to specify the domain name of the SMTP server to use for each:

- On each iMIS server host, open the web.config files for each iMIS application:
- **iMIS** default location:
- **C:\Program Files (x86)\ASI\iMIS\Net\web.config**
- **C:\AsiPlatform\Asi.Scheduler_[*your instance*]\web.config**
- **iMISpublic** default location – **C:\Program Files (x86)\ASI\iMIS\iMIS_public**
- In each web.config file, search for the <network> element declaration and modify the value of the host attribute to specify the domain name of your organization's SMTP server. For example:

```
<network host="mysmtpsrv.myorg.org"...
```

> **Note:** In the `<network>` element declaration, you can also specify port and authentication information for your SMTP server to ensure that iMIS can find and log on to the SMTP server in your environment. For details, refer to your Microsoft ASP.NET documentation.

2. Restart each iMIS server on which you modified the web.config file.

**Restoring databases: stopping iMIS services**

iMIS services should always be running unless you need to restore the iMIS database from a backup. You must temporarily stop **AsiScheduler** before attempting to restore the iMIS database. Otherwise, the service can lock the database and prevent the restoration.

During installation, iMIS creates **AsiScheduler** on every iMIS server. **AsiScheduler** manages processes defined in iMIS Process Manager, as well as the following:

- Generates HTML files
- Copies uploaded content files to a web-accessible folder
- Deletes files associated with deleted content
- Marks published content as **published** and makes the content live on the web server

Restart the **AsiScheduler** app pool in IIS.

> **Note:** If you cannot restore an iMIS database due to the database being in use, run the following command from a command prompt to ensure that IIS is stopped:
> `iisreset -stop`
> Run the command `iisreset -start` to restart IIS.

Rebuild the search index

While the **AsiScheduler** app pool is stopped, you can delete and rebuild the search index. For more information, see Deleting community posts and rebuilding the search index.

Enable the SQL Service Broker

The **SQL Service Broker** must be enabled after a database restore. To enable the SQL Service Broker, open the **iMIS DB Maintenance Utility** (go to **Start > ASI > iMIS > Tools**) and click **Prepare iMIS Database**.

### Improving startup time at login

If the initial start time is too slow even after rebooting or restarting IIS, you can edit settings to lower the startup time.

1. Stop the AsiScheduler application.
2. Edit the web.config files.
3. Find the `<SystemParams>` section and add the following:

```
        <!-- Url to the application server this is installed for. -->
<add key="ImisWebServerUrl" value="http://localhost/iMIS/"/>
<!-- Value given in minutes. Default value is 15. -->
<add key="PingInterval" value="15"/>
<!-- Comma-separated list. Example value:
    "http://server1/iMIS/,http:server2/imispublic/,..." -->
<add key="AdditionalUrls" value=""/>
```

4. Recycle the AsiSchedulerPool app pool, then enable the AsiScheduler application for it to take affect immediately.

> **Note:** There is also a keep-alive service for all RiSE-managed sites, to automatically pre-load sites in IIS if they are restarted, to improve the load time for the first browser request. You control this service through the Asi.Scheduler web.config file.

### Resetting system SQL authentication passwords

When the product setup.exe creates a new iMIS database, two SQL logins are created on the SQL Server instance that are used for system-level authentication of database transactions initiated by an iMIS user. These special logins prevent the need for any iMIS user to have a defined login or user on the SQL Server instance or iMIS database. Neither login is a member of any server role.

- **manager_<*db*>** (where **<*db*>** is your iMIS database) is used by every iMIS user record that is a member of the **SysAdmin** role in Advanced Accounting Console.
- This login is a member of the database roles **db_owner** and **public**.
- As a member of the **db_owner** role, it enables activities such as rebuilding tables from Advanced Accounting Console.
- **imisuser_<*db*>** (where **<*db*>** is your iMIS database) is used by every iMIS user record that is not a member of the Advanced Accounting Console **SysAdmin** role in Advanced Accounting Console.
- This login is a member of the database roles **IMIS** and **public**.
- Not a member of the **db_owner** role, activities such as rebuilding tables are unavailable.

  Resetting authentication passwords automatically

  In DB Maintenance, run **Prepare iMIS Database** to reset authentication passwords automatically. This resets an iMIS database that has just been restored to a new location or under a new name.

  Resetting authentication passwords manually

  > **Note:** You will rarely need to reset the hashed passwords for these special SQL logins. Should you need to, follow this procedure carefully.

  Do the following to reset authentication passwords manually:

1. If needed, grant access to the iMIS SQL Server login password for the SQL Server instance on which the iMIS database exists. Only that login can update other SQL logins.
2. In Advanced Accounting Console, log in as **MANAGER**.
3. Select **File > System Setup**.
4. On the **System Setup** window, click **SQL Security Setup**.
5. For **manager_<*db*>**, enter a string identically in both **SQL Manager Password** and **Verify Password**. The string does not matter: it becomes a hashed value.
6. For **imisuser_<*db*>**, enter a string identically in both **SQL User Password** and **Verify Password**.
7. Click **Save** to create the hashed password values stored in the **System_Params** table.
8. Click **Create SQL Logins** to reset the hashed passwords for the logins on the SQL Server instance.

9. When prompted, enter the **sa** password and accept any messages that appear regarding shutting down iBO on the iMIS server.

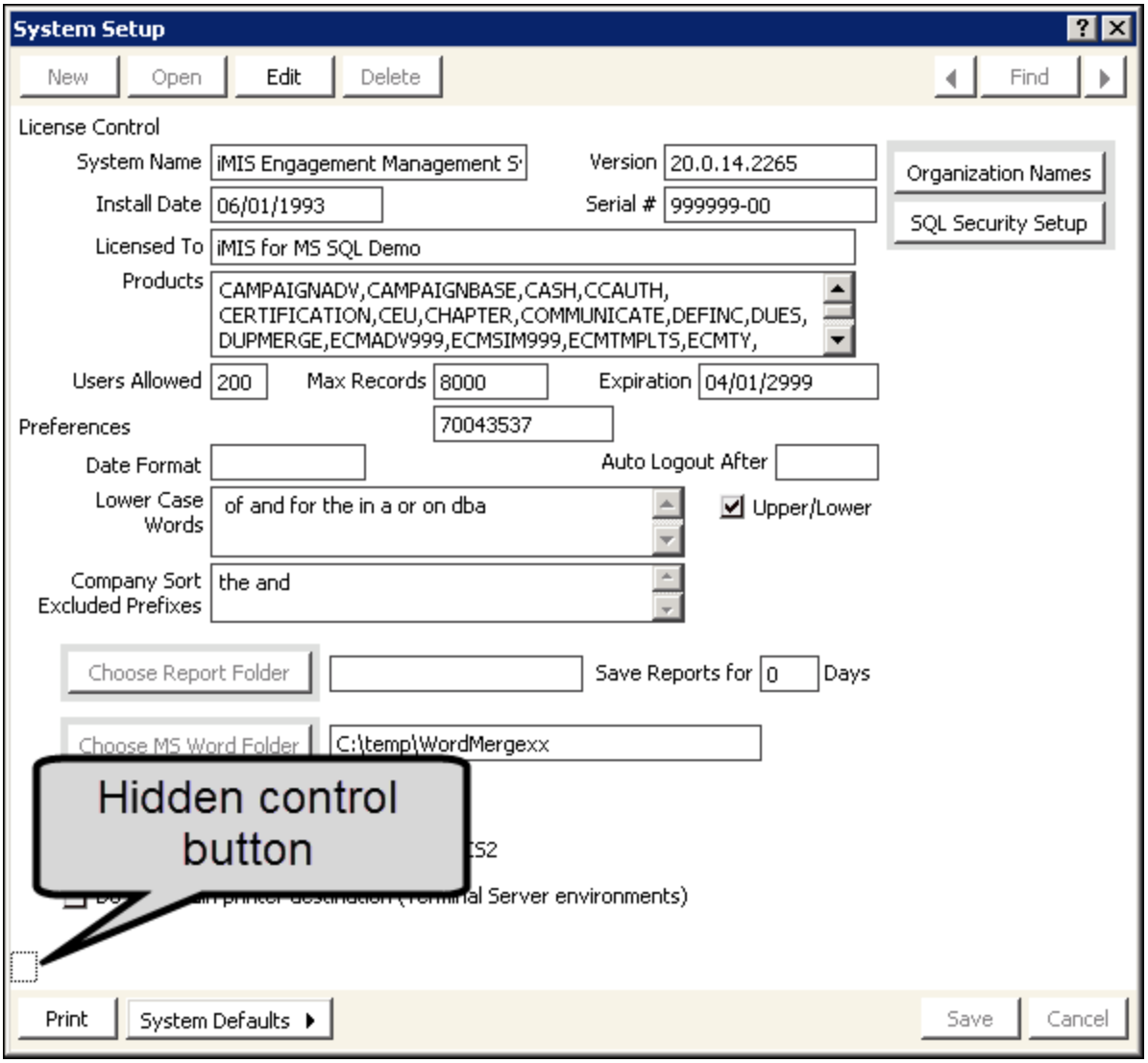
## Reference information

Adding product keys to iMIS

When you add new product keys to an existing installation of iMIS, users see the new functionality only after they exit and restart Advanced Accounting Console.

Do the following to add product keys:

1. In Advanced Accounting Console, log on as MANAGER.
2. Select **File > System Setup**.
3. Click the hidden control button in the lower left corner of the window:




An unlabeled checksum appears beneath the **Max Records** field.

4. Click **Edit**.

5. In the **Products** field, enter your new product keys at the end of the current string, delimiting each new product key with a comma (no spaces).

   **Note:** Make sure that the string ends with a final comma.

6. In the unlabeled checksum field, enter the checksum provided with your keys. Add any information specified in the instructions that accompanied your keys.
7. Click **Save**.
8. Close and restart Advanced Accounting Console to verify the new features.
9. Notify users to restart Advanced Accounting Console to see the changes.

Additional resources

The following websites are useful resources for troubleshooting your installation:

- ASI Support (http://advsol.com/supportportal)
- iMIS Community (http://www.imiscommunity.com)
- Microsoft Support (http://support.microsoft.com/directory)

**Note:** If this option is not enabled, then the iMIS environment will be overtaken by the RDP control. Navigation links will not be visible.

a. Click **Save**.
b. Click **Publish**, and then click **OK**.
c. Refresh the Staff site. You can see the new navigation link to the Advanced Accounting Console.

**Note:** Every time the **Advanced Accounting Console** link is clicked, a unique token is generated. This is a one-time-use only token.

AsiScheduler and custom content item publishing

If you are using custom content items, the associated .dll files must be copied to the bin folder for AsiScheduler, as well as the iMIS **net\bin** folder. By default, that location is **C:\AsiPlatform\Asi.Scheduler_ [your instance]\bin**.

If the associated .dll files are not copied to the appropriate bin folders, you will not see an error message: The content will just stay in a **Pending** state. You can see the errors in the **Windows Application Event log** or in the **PublishMessageLog** table in the database.

If you continue to see this behavior after copying your content item .dll files to the AsiScheduler folder, recycle and re-enable the AsiScheduler application pool:

1. Open the IIS administrative utility. Go to **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
2. In the left navigation panel, go to **Sites > Default Web Site**. Select to view the **Default Web Site Content** by **Content View**.
3. Select the **Asi.Scheduler_ [your instance]** application for the instance you installed.
4. Do one of the following:
   - Right-click and select **Manage Application > Browse**. An ASP.Net page will open.
   - In the **Actions** pane, select **Browse**. An ASP.Net page will open.
5. Close the browser. The **Asi.Scheduler_ [your instance]** service is now enabled.

AsiScheduler and custom payment gateways

Similar to custom content items, if you are using a custom payment gateways (for example, AuthorizeNetPaymentGatewayProvider) the associated .dll files must be copied to the bin folder for AsiScheduler, as well as the iMIS **net\bin** folder. By default, that location is **C:\AsiPlatform\Asi.Scheduler_ [your instance]\bin**.

Changes to website organization and system content

The database upgrade for this version of iMIS implements changes that prevent you from modifying out-of-the-box iMIS website content. These changes are part of an ongoing progression of improvements making it easier and safer for your organization to upgrade your websites and content.

In this release, **Manage websites** is restructured to organize websites into folders that make clear their usage:

- **Core Sites** holds essential iMIS applications (such as **iMIS Advanced Accounting Console**. Be prepared to recreate any customizations you introduce there).
- **Quick Start Sites** holds the growing set of RiSE sites (**Member**, **Member**, **Mobile**). Refer to it for comparison, but make no changes.

> **Note:** Manage your own sites outside of these folders so that you can change, copy, and implement safely from overwriting by upgrades.

All content records in the **Core Sites** and **Quick Start Sites** content folders are protected as System content, including content previously created in those folders. After your database upgrade, if you attempt to save any changes to System content, you will receive the error message:

Cannot modify system content

You will be unable to save changes.

> **Note:** You must make a copy of Configuration options: content folders in order to make any changes to that content, and then update any shortcuts or navigation items to point to the new copy.

Before upgrading your database, consider each of the following scenarios. Take the action indicated if the scenario applies to your situation:

- If you have modified any sample communication template, such as the Default communication template or Order Confirmation template make a copy of your edited template before initiating an upgrade so that your changed will not be overwritten on upgrade.
- If you are actively using the out-of-the-box Member or Member Mobile website, Creating a site of your version of the website before initiating the database upgrade so that your changes will not be overwritten.
- If you have created any new content under the @/Member or @/Mobile content folder, move that content to a folder that is outside of the @/Member or @/Mobile folder to make sure your changes will not be overwritten. For example, create a new @/MyContent folder and move your content into that folder. Publish your content after you move it.

> **Note:** By default, the out-of-the-box quick-start sites are marked as **Inactive**. If you want to use a sample site, copy the site and enable the **Is this website active**

option. Go to **RiSE > Site Builder > Manage websites**. Click the expand icon in the **Status** area.

Changing Windows 7 themes for Advanced Accounting Console

To run Advanced Accounting Console on a Windows 7 system optimally, disable the Aero Desktop experience, which overlays Windows with subtle animations and translucent glass window effects. These visual effects interfere with features in Advanced Accounting Console and many other applications, so Windows 7 offers an easy way to restore compatibility:

1. From your **Start** menu, right-click the iMIS program icon and select **Properties**.
2. On the **Compatibility** tab, enable **Disable desktop composition**.
3. If other iMIS users share this system, select **Change settings for all users**.
4. Click **OK**.

Whenever you run iMIS (or any application with this compatibility setting), Windows will check to see if Aero is running and will restore the Basic theme to support the application.

Choosing single or multiple iMIS servers

Fundamentally, iMIS is an ASP.NET web application:

- **iMIS** (IIS application/**iMIS**) supports **Full** and **Casual** users (see Types of iMIS licenses and views).
- **iMISpublic** (IIS application/**iMISpublic**) supports **Public** users. Install **iMISpublic** only if you are extending iMIS access to members through a non-CM public website.

**What they share**:

Although these applications are largely independent of each other, they share the following:

- **Database**: They share the same iMIS database and store much of their configuration information there. Many parameters for **iMISpublic** are defined through **iMIS**.
- **Logon**: All logon handling is performed by **iMIS** (in conjunction with the ASP.NET authentication store), so **iMISpublic** forwards logon requests to **iMIS**. User records and their corresponding authentication record in the ASP.NET authentication store are global for all applications servers that share the same iMIS database.

**Complete versus Custom installation**:

For a simple client-server configuration, use the iMIS installer to perform a **Complete** installation on a single iMIS server. This results in one instance of each application on one iMIS server, supporting all three user classes. After installation, you complete essential configuration, after which you can roll out clients to your users.

To create sophisticated configurations that distribute the applications among two or more iMIS servers, you need to perform a **Custom** installation on each iMIS server. During a **Custom** installation, you can specify which applications to install. On some iMIS servers, you might install both applications. On other iMIS servers, you might install only one application.

**Multiple iMIS servers and instances**:

The iMIS architecture is flexible: you can install both applications onto the same iMIS server, or you can install them on different iMIS servers.

You can use the Multi-Instance Utility to install multiple instances of each application among multiple iMIS servers. You might deploy a complex iMIS architecture like this to manually distribute client-server load in a large organization by spreading the workload across more iMIS servers.

> **Note:** Web farm architectures are not natively supported by iMIS. In a multi-iMIS server architecture, each application instance is independent of the others (apart from using the same iMIS database and sharing configuration and logon information). Authentication tickets are not shared among the instances, and there is no automated fail-over or load-balancing code written into either of the applications.

**Extending iMIS**:

If you have custom ASP.NET extender applications, you can potentially integrate them with the iMIS applications to the extent possible within the framework of ASP.NET.

> **Note:** Any such integration or other customization of iMIS is beyond the scope of ASI Support. Test carefully, and have a back-out plan if your customizations interfere with basic iMIS functionality.

Deleting community posts and rebuilding the search index

Do the following to delete and recreate the search index to prevent the deleted posts from being returned in a search:

1. Stop the **AsiScheduler** app pool.
2. Stop IIS.
3. Delete the Lucene index folder (**C:\Program Files (x86)\ASI\iMIS\indexServiceProtected\Search\Lucene**).
4. If you previously included Contact and Organization records in the search index and want to add them again, run the following SQL command:
   `DELETE FROM SystemConfig WHERE ParameterName LIKE 'ContactsPublishing%'`
5. Start IIS.
6. Start the **AsiScheduler** app pool.
7. Publish all content.
   This process deletes everything from the index, including contact and organization records.

   Communities, Posts, Products, Donation Items and Events are all added back to the Lucene search index automatically. Publishing all content records, for example, Publish Working Items and Regenerate Published Items, pulls the Content records back into the Lucene search index. To add Contacts and Organization records back into the index, the added step of running the SQL command is required before restarting the publishing service.

DLL versioning

`Asi.dll` and other DLLs report different version numbers than the version reported in **System Setup > iMIS management**.

> **Note:** To verify DLL versioning, check only `AsiV10.dll`.

Editing the publishing server protected path

To change the local protected path of the publishing server:

1. Disable the ASI.Scheduler by turning the ASI.Scheduler application pool off.
2. Create a new directory to use as a new path, for example, **C:\<*new_path*>**.
3. Edit the publishing server properties, changing the local protected path to the new path.
4. Edit the **C:\Program Files (x86)\ASI\iMIS\Net\web.config** file on the iMIS server and change the value for **IndexPath** to **c:\<new_path>\Search\Lucene**.
5. Perform an **iisrest**.
6. Turn the ASI.Scheduler back on.

(upgrade) No support for customized triggers

Some site administrators choose to implement customized triggers on iMIS tables. Advanced Solutions International (ASI) does not support user-defined triggers. Be aware that if you have customized triggers, you will need to recreate them after an upgrade. Our upgrade process might remove any non-iMIS triggers.

> **Note:** ASI reserves the right to add triggers to iMIS tables.

Reapplying updates

iMIS lets you run update (patch) scripts repeatedly, with no ill effects. Why is it designed this way? Because iMIS DB Upgrader must work around differences in how updates are applied at different sites. Since iMIS needs all previous updates to be applied, it is safest for DB Upgrader to reapply the intermediate updates in order, whether needed or not. That way, if you have missed an update or two or even applied an earlier update over top of a later one, the upgrader will lay down the updates in order to ensure you end up with the proper changes. DB Upgrader can do this since updates can reinstall safely, multiple times. Overlaying all updates adds almost no time to the upgrade process but greatly improves its robustness.

Roles and role services

The installer checks for and configures services that iMIS requires, and warns you when the installer detects problems.

> **Note:** The iMIS installer will check that features necessary for iMIS are installed, but the installer does not check for the presence of roles. The iMIS installer will not report if a role is missing.

The following settings are required on each server:

**Windows 2008 R2**:

Open **Server Manager** and add the following roles and role services:

1. Go to **Start > Administrative Tools > Server Manager**.
2. Right-click **Roles**.
3. Select **Add Roles**.
4. Walk through the **Add Roles Wizard**.
5. (Application servers only) Add **Application Server** and
6. Add **Web Server (IIS)**.
7. Select A**dd Role Services** and add **ASP.NET**.
8. Under **Features > Add Features**, enable **.NET Framework > WCF Activation > Non-HTTP Activation**.

**Windows 2012**:

Open **Server Roles** and add the following roles and role services:

1. (Application servers only) **Add Application Server**.
2. Add **Web Server (IIS) Support**.
3. Under **Features**, enable the following:

- .NET Framework 3.5 Features:
- .NET Framework 3.5 (includes .NET 2.0 and 3.0)
- Non-HTTP Activation.
- .NET Framework 4.5 Features
- .NET Framework 4.5
- ASP.NET 4.5
- WCF Services
- TCP Port Sharing

(install) Support for Crystal Reports runtime versions

ASI distributes a royalty-free Crystal Reports 9 runtime with this release. The runtime license allows you to run the supplied Crystal reports. In order to modify or create a report, you must purchase and install a complete Crystal license. Due to new licensing guidelines established by Business Objects, ASI cannot distribute a royalty-free runtime for Crystal 10 or higher. Using Crystal reports for the web may require a different Crystal license. Contact your AiSP or go to Crystal's site to determine which product to purchase.

ASI continues to distribute the Crystal 9 runtime, which is compatible with the full versions of Crystal 10 and higher. However, be aware that features added to the newer releases make reports with these features incompatible with the Crystal 9 runtime. Problems encountered as a result of these new features are not supported by ASI since we are restricted to distributing the Crystal 9 runtime. Therefore, be sure to back up any existing report before modifying it in Crystal 10 or later. In our testing, we have not experienced problems, but the risk remains.

**Note:** Crystal Reports for IQA are disabled by default on 64-bit machines. For information on enabling Crystal Reports, seeRunning Crystal Reports in 32-bit mode.

Viewing publishing server error logs

In the **Maintenance** area of **Content Management**, select **Publishing servers**. Select **error log** for the *publishing server* you want to review. You can sort the log by any column. If you delete entries, they are permanently removed from the corresponding log file on the server host where the corresponding *publishing service* is installed (**C:\Program Files\ASI\iMIS\Net\bin\PublishingService.log**).

You must be a member of at least one **Master Admin***content authority group* (CAG).

**Note:** Membership in the **SysAdmin** security role effectively grants the full set of Document System permissions and the full set of CAG permissions (you are effectively a member of a **MasterAdmin** CAG too). However, to participate in web con-

tent authoring workflow, even members of the **SysAdmin** role must be an explicitly-listed member of at least one CAG.

## Troubleshoot iMIS installations and upgrades

Credit card encryption error

**Problem**:

You receive the following error message during an upgrade to iMIS:

There was an error during credit card encryption. This upgrade is incomplete, and you must restore from a backup. iMIS will now exit.

**Solution**:

This error indicates the encryption check failed during an upgrade of the database. iMIS cannot repair this database, so you must restore from your backup.

Customization to task list items not taking effect

**Problem**:

When making a change to a feature using the **Set up module** function, you expect the changes to take effect after restarting Advanced Accounting Console, but the changes do not appear.

**Solution**:

This problem occurs when a customization causes changes to the left navigation items, requiring a cache refresh. A cache refresh occurs on regular intervals, typically 15 minutes, but you can also stop and restart all websites that contain your iMIS applications to correct the problem.

Do the following to correct this problem:

1. Close the Advanced Accounting Console.
2. Wait15 minutes, or the amount of time specified for the default refresh cache interval.
3. If you do not want to wait 15 minutes, go to IIS. Stop and then restart all websites that contain your iMIS applications.

Data source (ODBC) not found on Vista computers

**Problem**:

On a Windows Vista or Windows 7 workstation, you can start Advanced Accounting Console normally, but when you attempt to log on to iMIS, you receive an `OdbcSQL/31 0 - IM002` error, indicating that a datasource name was not found and there is no default driver specified.

**Solution**:

This problem is caused by trying to run Advanced Accounting Console without first setting the shortcut for Advanced Accounting Console to **Run as administrator**.

**Setting iMIS to Run as administrator**:

Do the following to set iMIS to **Run as administrator**:

1. Close Advanced Accounting Console.
2. Ensure that your User Account says **Administrator**.
3. Locate the **Start** menu shortcut for Advanced Accounting Console.
4. Right-click the shortcut and choose **Run as administrator**.
5. If prompted to allow the **Omnis7.exe** program to run, click **Allow**.
6. Log on to Advanced Accounting Console to ensure that the problem is fixed.
7. Perform Steps 1 through 6 for any additional Advanced Accounting Console shortcuts on your computer.

---

Database is locked and cannot be restored

**Problem**:

When you try to restore the iMIS database, SQL Server reports that the database is locked and cannot be restored.

**Solution**:

Before restoring the iMIS database, ensure that **AsiScheduler** is stopped on every host that contains an instance of the application server or public website. If this service is running, SQL Server considers the database locked.

---

After restoring the database, restart **AsiScheduler**. Configure **AsiScheduler** for automatic startup.

> **Note:** If you changed the name of the database during the restore, such as restored from a different database, you must run DB Maintenance and select the **Prepare iMIS Database** function. If not, users will not be able to log in.

Determining Service Pack levels

**Problem**:

You cannot determine the current Service Pack of your SQL Server environment, which might be needed for verifying system requirements or working with ASI Technical Support to troubleshoot a problem.

**Solution**:

To determine the current Service Pack level of your Windows operating system, you can use your SQL Server management environment to run the following SQL Query:

SELECT @@ version

To determine the current Service Pack of your SQL Server environment, you can use your SQL Server management environment to run the following SQL Query:

SELECT SERVERPROPERTY('ProductLevel')

Email output or event invites not sent or received

**Problem**:

Email outputs from iMIS are not being sent. These emails could be merge process outputs, notifications to users, for example, website error messages that are sent to the designated webmaster for your iMIS-based web content.

**Solution**:

This problem can occur due to several causes:

- Your organization's SMTP server was not specified correctly during installation of iMIS.
- The domain name of your organization's SMTP server has changed since you installed iMIS.
- Your organization's enterprise virus protection might have persistent port blocking rules against mass-mailing worms that were triggered if iMIS tried to send email notifications to you from an IP address that did not correspond to a trusted IP address.
  Isolating the cause of the problem depends on which type of notification is not working correctly:

- Outlook event invitations are handled by your Exchange webmail proxy server.
- All other email outputs are handled by the SMTP server that is configured for each iMIS-related ASP.NET application.
  **Specifying your global email settings**:

  Some email-related settings are global to your entire organization regardless of how many application servers you have.

  Do the following to specify your global email settings:

1. Specify the email address of the designated webmaster for your iMIS-based web content:

a. In Advanced Accounting Console, go to **System Setup > Set up web components > Quick setup**.

b. In the **The default email address for the site** field, enter the email address of the designated webmaster for your iMIS-based content.

2. *(Event invitations only)* Specify the Microsoft Exchange account information of the designated webmaster for your iMIS-based web content.

a. In the Advanced Accounting Console, go to **System Setup > Set up web components > Exchange settings**.

b. The **Exchange settings** window is displayed.

c. In the **Username** field, specify your designated webmaster's domain user name required to log on to the proxy server for Exchange, for example, **username**. You might need to prefix the username with the domain name depending on the network location of the exchange server, such as **<*domainname*>\username**.

d. In the **Password** field, specify the corresponding domain password of your designated webmaster.
e. In the **Exchange URL** field, specify the namespace URL of your designated webmaster's Exchange user base mailbox folder when connecting to your proxy server for Exchange. For example, **https://webmail.myorg.org/exchange/userName/** if the Exchange server is configured for Outlook Web Access, or e**xchangeserver.localdomain.local** when the Exchange server is on a local network with your iMIS server.
f.

> **Note:** Quickly test these three settings by opening Internet Explorer and entering the **Exchange URL** that you have specified. You should get a domain authentication dialog asking for your username and password. If your web mail inbox appears after you enter the username and password, these settings are correct.

**Specifying iMIS server-specific email settings**:

Some email-related settings are specific to each iMIS server, and even individually specific to each application on a server.

Do the following to specify your iMIS server-specific email settings:

1. Modify the web.config files for all instances of your **iMIS** and **iMISpublic** applications to specify the domain name of the SMTP server to use for each.

- On each iMIS server host, open the web.config files for each iMIS application:
- **iMIS** default location:
- **C:\Program Files (x86)\ASI\iMIS\Net\web.config**
- **C:\AsiPlatform\Asi.Scheduler_[*your instance*]\web.config**
- **iMISpublic** default location – **C:\Program Files (x86)\ASI\iMIS\iMIS_public**
- In each web.config file, search for the <network> element declaration and modify the value of the **host** attribute to specify the domain name of your organization's SMTP server. For example:
`<network host="mysmtpsrv.myorg.org"...`

> **Note:** In the `<network>` element declaration, you can also specify port and authentication information for your SMTP server to ensure that iMIS can find and log on to

> the SMTP server in your environment. For details, refer to your Microsoft ASP.NET documentation.

2. Restart each iMIS server on which you modified the web.config file.
3. Ask our network administrator to check your enterprise virus protection's port blocking rules to ensure that port **25** of the IP address corresponding to each iMIS server is not blocked.

Licensed users exceeded

**Problem**:

You receive the following error message while using iMIS:

Number of licensed users exceeded. Please try again later.

**Solution**:

This error is caused by an extraneous entry in the **iMIS UserProcess** table. If the number of users actually logged in does not exceed your named license counts, do the following to correct the problem:

1. Have all users log out of iMIS.
2. Use your SQL Server management environment to perform one of the following fixes:

- Delete all rows from the **UserProcess** table.
- Truncate the **UserProcess** table.
-

> **Note:** Never perform these actions while users are connected.

Log on or Change Password appears unexpectedly

**Problem**:

You expect a particular iMIS page to appear as the result of taking some action, but what appears instead is a page asking you to log on or to change your password. This error occurs only after your iMIS session has been idle for a long time.

**Solution**:

See Optimizing timeouts on production iMIS servers for how best to adjust your ASP.NET settings for your situation.

Maximum users exceeded

**Problem**:

You receive the following error message while using iMIS:

Maximum Number of Users Exceeded.

**Solution**:

This error comes from the third-party Accumail product. Accumail comes with a 100-user license. Two circumstances cause this error:

- The license did not properly update during the most recent upgrade.
- Windows is maintaining unnecessary connections to the application.

Refer to the Accumail Installation Instructions in *System Tools*.

Page not available error after long idle time

**Problem**:

You expect a particular iMIS window to appear as the result of taking some action, but what appears instead is a **Page Not Available** error. This error occurs only after your iMIS session has been idle for a long time.

**Solution**:

See Optimizing timeouts on production iMIS servers for how best to adjust your ASP.NET settings for your situation.

Page not found error

**Problem**:

You expect a particular iMIS window to appear as the result of taking some action, but what appears instead is a **Page not found** error.

**Solution**:

To resolve the problem, you need to add the iMIS .NET Application server to the **Trusted Sites** in Internet Explorer.

Do the following to correct this problem:

1. In Internet Explorer, go to **Tools > Internet options**.
2. On the **Security** tab, select **Trusted sites**.
3. Click **Sites**.
4. Enter your iMIS .NET Application server in the **Add this website to the zone** field.
5. Click Add to add to the trusted **Websites** list.
6. Click **Close**.
7. Apply your changes.

Pop-up windows never open

**Problem**:

When you click a button in an iMIS window, nothing happens. Usually this is a button that you would expect to display a new window of some sort.

**Solution**:

Most iMIS UI content is a web page displayed in a browser control, even when using Advanced Accounting Console instead of a web client. As with any web-based application, some UI elements are actually pop-up browser windows. If you have any type of pop-up blocking settings enabled in your browser, or if you are using some third-party pop-up blocking software, this will prevent some iMIS windows from being displayed properly.

You must disable all pop-up blocking behavior in your browser for content that it receives from the iMIS application server tier or public website tier. If you have third-party pop-up blocking software, you must likewise configure it to enable pop-ups from any iMIS source.

Problems publishing and creating new content

If you have problems publishing and creating new content, your host might be missing Windows Server roles it needs:

- Add **Web Server** and **Application Server** roles to each iMIS server.
- Add **Web Server** roles to each web server.

Report Viewer errors

iMIS offers SQL Server Reporting Services (SSRS) support through the **ReportViewer** control and uses its **Reset** method, which was not in the original distribution of the control. Unfortunately, several Microsoft installers ship the older version of the control and place it in the GAC, where it is found before the newer version in the iMIS **\bin** folder.

You have an older version if you encounter an error like the following:

- "Microsoft.Reporting.WebForms.ReportViewer" does not contain a definition for "Reset' and no extension method "Reset" accepting a first argument of type
- "Microsoft.Reporting.WebForms.ReportViewer" could be found (are you missing a using directive or an assembly reference?)

To get the newer version, search the web for **Microsoft Report Viewer Redistributable 2005 SP1 (Full Installation)**, which is available as a free download from several sites.

> **Note:** Be sure you get the **2005** pack (the 2008 SP1 package cannot correct the problem). Also be sure that you select **Full**, not **Upgrade**.

Reporting, queries slowed by table locks

**Problem**:

When running lengthy ad hoc queries or reports, or when using third-party tools for reporting from the iMIS database, locks are placed on iMIS tables. This prevents iMIS users from performing updates or inserts until the reports finish.

**Solution**:

The problem is with lock escalation and the transaction isolation level in SQL Server. If a query affects a large percentage of rows in a table, the shared page locks are escalated to a table lock to reduce locking overhead.

There are two ways to deal with this problem:

- **Best approach** – Separate your transaction processing from reporting functions, so that the long-running SQL queries are run against a static database:

- Create periodic copies of the iMIS database to use for reporting.
- Run all reports against the copied database, while transactions go against the original database.
  This is the best approach because your long report queries are run against a static database. Using NOLOCK might cause erroneous values in reports if dirty reads or phantom rows have affected the result set of the report query.
- **Alternative approach** - Add the NOLOCK keyword to long-running SQL queries to keep locks from lasting as long. This forces SQL Server to change the transaction isolation level to READ UNCOMMITTED. This does not issue shared locks at either the page or the table level and does not honor exclusive locks, all of which can result in erroneous query results because of possible dirty reads and phantom rows.
  To add the NOLOCK keyword to ad hoc SQL queries (or custom scripts), add the string (nolock) to the end of the FROM clause. For example:

  Select ID, LAST, ADDRESS from Name (nolock)

  To configure iMIS to use the NOLOCK keyword automatically on specific long-running reports, create a NOLOCK keyword for large report runs.

  **Creating a NOLOCK keyword for large report runs:**

1. Obtain the iMIS SQL Server login password for the SQL Server instance on which the iMIS database exists.
2. > **Note:** Some reports that have custom reporting engines (**RunProcedure** specified in report spec) will ignore the NOLOCK keyword. This typically affects reports that join two or more tables.
3. Log on to Advanced Accounting Console as MANAGER.
4. Select **Utilities > Report Specs**. The **Report Specifications** window is displayed.
5. From the list of reports, select a report that is taking a long time to run and locking records.
6. Click **Parameters**. The **Detail Report Parameters** window is displayed.
7. Click **Edit**.
8. In the **Parameters** field, enter `NOLOCK`.

9. Repeat this process for all affected reports.
10. Close the **Detail Report Parameters** window.
11. Close the **Report Specifications** window.
12. Select **File > System Setup**. The **System Setup** window is displayed.
13. Click **SQL Security Setup**. The **SQL Security Setup** window is displayed.
14. Click **Edit**.
15. In the **NOLOCK keyword** field, enter `NOLOCK`.
16. Click **Save**.
17. Enter your **sa Password** when prompted.
18. Click **Create SQL Logins** to add the NOLOCK keyword to logins on that instance.
19. Enter the password and accept any messages about shutting down iBO on the host.

Silent install of Advanced Accounting Console

- Answer files are specific to the version of the setup.exe file that was used to create them. You cannot use answer files that were created from a previous release of iMIS.
- If a silent installation fails for a new installation of the Advanced Accounting Console, it is generally safe to troubleshoot the issue with the answer file and then attempt the silent installation again. However, at that point you are outside of the automated process and it might be easier to manually run the installer on any workstations that failed the automated silent install.
- If a silent installation fails for an upgrade of an existing Advanced Accounting Console, you should not try to modify the answer file and run the silent installation again, because it is likely by this point that some Advanced Accounting Console-related files have already been removed from the workstation and you could encounter more errors. Instead, you should manually run the iMIS Installer on workstations that failed a silent upgrade attempt.
- In any scenario where you record an answer file on one computer and then run a silent installation using that answer file on a different computer, there are potential points of failure due to differences in the configuration of the two machines. Some typical examples are:
- You record an upgrade of the Advanced Accounting Console on a computer where the iMIS client is installed in the default **C:\Program Files (x86)\ASI\iMIS** path, and then you run a silent installation on a target computer where the Advanced Accounting Console is

installed in a different path.

- The answer file was recorded on a computer that already had an Advanced Accounting Console (an upgrade installation), but the target computer does not have an Advanced Accounting Console installed already (a new installation), so the installation requires more information than what was recorded in the answer file.
- The target computer does not meet all the system requirements and prerequisites.
  In some of these cases, such as the installation path on the target computer being different, you can manually edit the corresponding value in the answer file to achieve a successful result. In other cases, such as an answer file recorded during an upgrade but the target system requires a new installation, you cannot achieve successful results by editing the answer file. Instead, you must record the answer file on a computer that is closely analogous to the target computers on which you plan to run silent installations.
- When you manually edit an answer file, you should take special care to change only values that are obviously file paths, database connection information, iMIS server URLs, license values, and so forth. Modifying other non-obvious values can result in infinite loops within the iMIS installer and other undesirable behavior.
- It is advisable to test your silent installations on non-production computers that are closely analogous to your production target computers before actually running the silent installations on production computers.
- The setup.log file contains three sections that are useful for troubleshooting:
- **[InstallShield Silent]** identifies the version of InstallShield Silent used in the silent installation. It also identifies the file as a log file.
- **[Application]** identifies the installed application's name and version, and the company name.
- **[ResponseResult]** contains the result code indicating whether the silent installation succeeded. An integer value is assigned to the **ResultCode** keyname in the **[ResponseResult]** section. InstallShield places one of the following return values after the **ResultCode** keyname:
- 0 Success.
- -1 General error.
- -2 Invalid mode.
- -3 Required data not found in the Setup.iss file.

- -4 Not enough memory available.
- -5 File does not exist.
- -6 Cannot write to the response file.
- -7 Unable to write to the log file.
- -8 Invalid path to the InstallShield Silent response file.
- -9 Not a valid list type (string or number).
- -10 Data type is invalid.
- -11 Unknown error during setup.
- -12 Dialogs are out of order.
- -51 Cannot create the specified folder.
- -52 Cannot access the specified file or folder.
- -53 Invalid option selected.
- The iMISinstall.txt file contains a detailed installation log for general iMIS installation troubleshooting. Whenever data is read from the answer file used in a silent installation, you will see a message in this log like the following:

  ```
  12:02:58 | SilentReadData section: asiDatabaseInfo-0 key: sgSQLServer
  12:02:58 | found sgSQLServer: MYMACHINEHOST\SQL2005CS
  ```

  This example shows that the iMIS Installer silently read and set the value of **sgSQLServer** to **MYMACHINEHOST\SQL2005CS**.
- If a silent installation fails, the last information in this log will typically be an error message followed by an abort. The error message should help you isolate what went wrong during a silent installation:

  ```
  12:02:58 | bad db date in silent mode..aborting
  12:02:58 | OnAbort called
  ```

  **Tips to consider**:

- If there appears to be a problem with the result of a silent installation, you can review the following log files to help troubleshoot the problem:
- The silent installation log file (setup.log by default) located by default in the same folder as the setup.exe file. This location and file name might be different as described below.

- The **IMISinstall.txt** file located in **C:\Windows\Temp**.
- Although you can manually edit an answer file to produce slightly different variants of the same general silent install, you might get unexpected results in some cases. Editing an answer file for the same general type of installation to change some minor details, such as which iMIS database to use, is generally easy to do. But choosing entirely different components to install results in substantially different answer file contents, so it's impractical to edit an answer file to add or remove iMIS components. It is a better practice to run the iMIS Installer in recording mode to create different types of installations.
- If you prefer the answer file be placed in a location other than the default **C:\Windows** folder, use the **-f1** parameter as follows when you run the setup.exe file in recording mode. For example:

  `C: \temp\setup.exe -r -f1C:\temp\setup.iss`

  `C: \temp\setup.exe -r -f1"C:\<Directory With A Space In It>\setup.iss"`

  > **Note:** Make sure you have no space between the **-f1** parameter and the file path that indicates the target folder for the setup.iss file. Also, the **-f1** parameter must use an absolute file path that starts with a drive letter.

- If you prefer the answer file to have a different name than the default setup.iss file, which can be convenient if you want to keep a setup.exe file and several different answer files in the same network folder, you can specify the desired file name in the **-f1** parameter when in recording mode. To use that particular answer file when running a silent installation, use the **-f1** parameter again to specify which answer file to use during the installation.

  For example, assume that the setup.exe file for the new iMIS release is located in a network drive that is mapped to drive letter U: on every workstation on the network. You want to record a new answer file for installing only the Advanced Accounting Console client from that setup.exe file. You would first run the following command on a workstation that does not contain an Advanced Accounting Console to record a specially-named answer file for doing silent installs or upgrades of only the Advanced Accounting Console for this release:

  `U:\iMISInstaller\setup.exe -r -f1U:\iMISInstaller\iMISDesktop.iss`

Then on each workstation where you want to install or upgrade the Advanced Accounting Console, you would run the following command:

```
U:\iMISInstaller\setup.exe -s -f1U:\iMISInstaller\iMISDesktop.iss
```

- If you prefer the silent installation log file to be placed in a different location than the folder that contains the setup.exe file, or to have a name different than the default setup.log file, use the -f2 parameter. Make sure you have no space between the **-f2** parameter and the file path that indicates the target folder for the log file. For example:

```
U:\iMISInstaller\setup.exe -s -f1U:\iMISInstaller\iMISDesktop.iss -f2U:\iMISInstaller\Logs\userXdesktop.log
```

> **Note:** The **-f2** parameter must use an absolute file path that starts with a drive letter.

TCP/IP performance is slow

**Problem**:

Overall performance of a back-end tier or of a **Full** user's Advanced Accounting Console seems slow.

**Solution**:

The default protocol for SQL Server connections is Named Pipes, so performance might be slowed on a network where TCP/IP is the primary network protocol.

For sites whose primary network protocol is TCP/IP, you usually can enhance performance by using the process described in your SQL Server documentation for setting all hosts and workstations involved in iMIS network traffic to use the TCP/IP protocol instead of the Named Pipes protocol.

Upgrade error for non-ANSI join operators

**Problem**:

During an upgrade from a previous release of iMIS, you receive an error message stating:

a query uses non-ANSI join operators

The upgrade fails.

**Solution**:

This problem occurs only in Microsoft SQL Server 2005 environments and is most likely to occur if you are running your current iMIS database in SQL 2000 compatibility mode.

The upgrade scripts for iMIS in a SQL Server 2005 environment require all objects in the iMIS database to be using the ANSI-standard join clauses introduced in Microsoft SQL Server 6.5. This error is generally caused by a custom trigger or stored procedure using the old-style join syntax that overloads the WHERE clause to provide both joins and restrictions. Specifically, the problem is caused by the *= and =* outer join operators, but it is good practice to ensure that all such joins are declared using an ANSI-standard join clause.

Do the following to correct this problem:

1. Restore your original backup of the iMIS database.
2. Review he restored database for custom triggers and stored procedures, and ensure that all such triggers use only ANSI-standard join clauses (INNER JOIN, LEFT OUTER JOIN, and so on).
3. Run the upgrade procedure again.

---

Windows open/change slowly

**Problem**:

New windows take a long time to appear, especially if you have not performed any action in iMIS for 20 minutes or longer.

**Solution**:

See Optimizing timeouts on production iMIS servers for how best to adjust your ASP.NET settings for your situation.

---

Wrong ordinal error from DB Maintenance: Analyze Database

**Problem**:

When you run the **Analyze Database** function of the DB Maintenance utility on an upgraded iMIS database, you receive **Wrong Ordinal** messages on one or more table columns.

**Solution**:

This error is normal on upgraded iMIS databases, and it is mostly harmless and can be safely ignored in most cases. This error can cause problems for example if you attempt to bulk load an affected table using the bcp utility and the format files created by ASI. Tables with this reported error will not successfully bulk load unless you first modify the ASI-supplied format file to reflect the actual column order of the affected table instead of the default expected column order specified in the ASI-supplied format files.

Although this error is mostly harmless (except in the case of bulk load operations), you can correct the error by rebuilding the table.

**Rebuild a table:**

> **Note:** Never run an older version of DB Maintenance against a newer database.

1. Have all users log out of iMIS.
2. Schedule downtime for rebuilding any tables containing large amounts of data.
3. Back up all tables that you plan to rebuild.
4. Go to **Start > All Programs > ASI > iMIS > Tools > iMIS DB Maintenance Utility**.
5. Select the table to be rebuilt.
6. Click **Rebuild Table**.

**Rebuilding a customized table:**

If you have added custom objects (Foreign Key constraints, triggers, indexes) to iMIS tables, you must remove the customizations and then add them back.

Do the following to rebuild a customized table:

1. Record all custom database objects that you have added to your iMIS tables, because you must manually recreate them.

2. Manually remove your objects, for example, drop all foreign key constraints on the table (both to and from the table, so you must also check other referencing tables and drop the relevant foreign keys there as well).
3. Go to **Start > All Programs > ASI > iMIS > Tools > iMIS DB Maintenance Utility**.
4. Select the tables to be rebuilt.
5. Click **Rebuild Table**.
6. Manually recreate all custom foreign key constraints that you recorded.

## Upgrading iMIS 

Use the following checklist as a roadmap for upgrading your iMIS application.

| Before you begin | |
|---|---|
| | Review system requirements |
| | Review 20.2 Upgrade changes |
| | Install additional required components |
| | Prepare the application server |
| | Prepare databases for an upgrade |
| | (optional) Refresh metadata |
| | (optional) Delete Database Engine Tuning Advisor Index |
| | Prepare to upgrade your websites |

| Upgrade iMIS | |
|---|---|
| | Download the iMIS product image |
| | Have all users log out of iMIS |
| | Uninstall iMIS |
| | Temporarily disable tools and settings |

| | |
|---|---|
| | Run the iMIS setup.exe |
| | Upgrade additional instances of iMIS |
| **Post-upgrade tasks** | |
| | Upgrade the On Behalf Of role |
| | Upgrade content items |
| | Upgrade website master pages |
| | Upgrade system alerts |
| | Redirect to the virtual directory URL |
| | Test access to installed components |
| **Upgrade existing websites** | |
| | Review website upgrade strategy |
| | Update sites that have page errors |
| | Upgrade older sites |

*See also*

- iMIS Maintenance
- Reference information
- Troubleshoot iMIS installation and upgrades

### Before you begin your upgrade

Use the information in this section to prepare to upgrade iMIS.

Refer to the following as part of your upgrade procedure:

- Install additional required components
- Prepare all servers and workstations

**Preparing databases for an upgrade**

Do the following to prepare a database for an upgrade:

1. If you added any navigation items to the **iMIS Desktop view** that use the **Open the link in a new window** option, disable that option or delete the items and make a note to restore them after upgrading. Otherwise, the site administrator will need to remove the navigation item and then recreate the navigation item.
2. If the **WebPartGalleryEntryRef** table exists, then to prevent an upgrade error, ensure that all custom content items contain a description by running the following script and manually updating any rows returned with a description:

```
SELECT *
FROM [dbo].[WebPartGalleryEntryRef]
WHERE ([WebUserControlPath] IS NOT NULL OR [WebPartTypeName] IS NOT NULL)
    AND ([WebPartDescription] IS NULL OR [WebPartDescription] = '')
ORDER BY [WebPartName]
```

3. To prevent duplicate key upgrade errors resulting from bad registration records, run the following scripts:

- **No ShipTo ID** – A registration record without an ST_ID occurs when entering new contact records through the Events registration **Attendee** tab in Advanced Accounting Console without enabling **Add to Master**. To find such problems, run the selection part of the script (Step 0). If you receive any results, run the entire script (Steps 1 through 3):

  ```
  ftp://ftp.advsol.com/download/Restricted/UpdateMeetingOrdersWithNoSTID.sql
  ```

  Although this script lets you upgrade your database successfully, it does not prevent future problems. To avoid recreating the problem, always enable **Add to Master** when entering new contact records through the Events registration **Attendee** tab.

- **Duplicate registration** – An error also occurs if your database contains duplicate event registration records for the same event. Run the selection script to locate these records:

  ```
  ftp://ftp.advsol.com/download/Restricted/SelectDuplicateRegistrations.sql
  ```

  Often the best fix is to close the event, which creates activity records for each registrant and purges all related entries in `Orders`, `Order_Lines`, `Order_Meet`, and `Order_Badge`.

4. If you use SQL Server's Database Engine Tuning Advisor to create additional index statistics, note that these are deleted during upgrade and will have to be re-added, if needed. See Deleting Database Engine Tuning Advisor index statistics.
5. In iMIS, post any open A/R Cash batches manually. If not, the upgrade might duplicate DUES activities.
6. If you customized any standard business objects, examine their properties in Business Object Designer (BOD) and record your changes so that you can reproduce them after upgrading.

   **Note:** New business objects that you created with Business Object Designer are automatically upgraded, but standard business objects might be overwritten.

7. Itemize any other customizations and locate their upgrade instructions.
8. (*SQL Server 2000*) Upgrade to a supported version of SQL Server, relocate your iMIS database to the new service, and upgrade using the relocated database.

   **Note:** Be sure to uninstall iMIS from your application server, install the new version of iMIS, and upgrade workstations with the remote installer from that application server.

9. In your SQL Server management environment, perform the following checks:

- Check for database corruption by running **DBCC CHECKDB**.
- Set the database option **Auto Close** to **False**.
- (*if applicable*) Enable the database option to **Truncate Log on Checkpoint**. Be sure your database log has sufficient size and space to grow to twice the size of the largest table. Revert to your original log settings only after you have upgraded successfully.
- Set the Recovery Model to **Simple** before running the iMIS upgrade. Record what you changed Recovery Model from, and change the setting back only after you have successfully upgraded.
- Itemize, and then drop, all full-text indexes and catalogs, but avoid dropping other types of indexes before upgrading, as some upgrade procedures need them. After the upgrade, you can recreate them.
- **Note:** Failure to perform this step might cause the upgrade to fail.

- If you have customized any ASI triggers, record your customizations so that you can reapply them after upgrading. All ASI triggers, procedures, views, and functions are replaced during upgrades, and all ASI indexes on tables are rebuilt.

  **Warning!**

  Be sure that you are customizing new SQL. Do not overwrite preexisting code; this could break iMIS functionality.

- Verify that all custom triggers and stored procedures in your iMIS database use only ANSI-compliant SQL (see Upgrade error for non-ANSI join operators).
- If you have custom views, refresh their metadata (see Refreshing metadata for custom views).

10. Shrink your log file with the following SQL Script:

```
-- Shrink first log file of THIS database
DECLARE @sql nvarchar(1000)
DECLARE @dbName sysname
DECLARE @logName sysname
SELECT @dbName = DB_NAME()
SELECT TOP 1 @logName = [name] FROM sys.database_files WHERE [type_desc]
= 'LOG' ORDER BY [name]
SET @sql = 'DBCC SHRINKFILE( ' + @logName + ' , 1)'
EXEC (@sql)
SET @sql = 'ALTER DATABASE ' + @dbName + ' SET RECOVERY SIMPLE'
EXEC (@sql)
SET @sql = 'DBCC SHRINKFILE( ' + @logName + ' , 1)'
EXEC (@sql)
go
```

11. Back up your database.

> **Note:** For large databases, check that you have sufficient free disk space relative to the size of your database, as its tables are copied during the process of conversion and rebuilding for ANSI support.

> **Note:** You can run a pre-upgrade conversion on a backup to ensure that all non-ANSI-compliant tables can be rebuilt successfully. See Running a standalone ANSI conversion.

12. Verify that the database backup can be restored.

> **Note:** If the upgrade process fails for any reason, you can fix whatever caused the failure, restart the upgrade, and the process will pick up where it left off.

13. Schedule system downtime for the upgrade to occur.

> **Note:** To enable default ANSI settings, the upgrade utility rebuilds every non-compliant table and recreates all stored procedures, triggers, functions, and views. Because of this extensive rebuilding, expect upgrading to be significantly slower for very large databases.

Refreshing metadata for custom views

If you have custom SQL views, be sure to refresh the metadata for the views to avoid database errors when upgrading iMIS. Views are created with schema information (column data types and sizes) as the data exists at that moment. If a column is later changed, renamed, or dropped, the view's cached value is out-of-sync. Using such a view can cause errors and unexpected issues, such as strings being truncated. User-created views easily become out-of-date because the iMIS schema changes from version to version.

Do the following to refresh the metadata for custom views:

1. Review the following iMIS Community post: Refreshing View Meta-Data.
2. Check the report for errors. Keep in mind:
   - SQL Server only reports the first bad column it encounters in a given view, even if there are several bad columns. Run the script repeatedly until no errors remain.
   - If you have renamed the column in the view, the column name listed in this output is the original column name in the Table, not the name used in the View.
3. If any errors are reported, fix the problem views immediately. This might involve:
   - Renaming a column in your view definition
   - Dropping a column
   - Getting the data from a new or different table
   - Dropping an obsolete view
   - Republishing the associated Business Object in Business Object Designer, if the view name starts with vBo (an automatically generated view)
4. Once the view is fixed, run the script again.
5. When errors no longer occur, proceed with the upgrade.

Deleting Database Engine Tuning Advisor index statistics

If you use SQL Server's Database Engine Tuning Advisor to create additional indexes, be aware that **DB Upgrader** needs the additional indexes to be deleted before upgrading.

> **Note:** Not only should indexes be dropped before upgrading, but so should any Database Tuning Advisor-generated statistics.

> **Note:** After upgrading iMIS, you can re-add these indexes using the Database Tuning Advisor. However, iMIS gained many indexing improvements, so test the performance of your upgraded system to determine whether you still need these indexes.

If you are unsure whether tables in your database contain these statistics, run the following query:

```
SELECT OBJECT_NAME(s.[object_id]) AS TableName,
        s.[name] AS StatName
```

```
 FROM sys.stats s
WHERE OBJECTPROPERTY(s.OBJECT_ID,'IsUserTable') = 1
    AND s.name LIKE '_dta_stat%';
```

**Preparing to upgrade your websites**

Do the following to prepare to upgrade your websites:

1. If you have not kept track of changes implemented into your theme, perform a comparison between the theme files you originally copied and your updated files, including all CSS, skin, image, and master page files. There are many free file comparison tools available online.
2. If you have tailored any of the communication templates, such as the Default or Order Confirmation template, copy them to the **Templates** folder.
3. In the CSS, skin, and master page files, annotate the code in your copy to mark the changes you have made so that you can identify these changes after the upgrade.
4. Copy any original theme files to retain all style modifications after upgrade:

a. Copy a theme folder, for example, **C:\Program Files (x86)\ASI\iMIS\Net\App_Themes\Austin**, and rename the copied folder. Use a unique name for the theme folder copy, for example, **\<*my_organization*>Austin**.

b. Create a new CSS file with the same name you used for your theme folder. Use this file for storing override classes and new classes. This will allow you to get the latest theme files during an upgrade, but you will be able to keep all style modifications.

5. For the image files, note which images you have changed or added. For example, if you are currently on 15.2.5 and are using a copy of the Aspen2 theme, compare your copied files to the original 15.2.5 version of the **Aspen2** theme files. Themes are located by default in **C:\Program Files\ASI\iMIS\Net\App_Themes**.

> **Note:** Back up your current theme and master page before you upgrade, so that you do not lose changes.

## Upgrade iMIS

Upgrading iMIS is much like installing from scratch, with the addition of important pre-upgrade tasks. If you do not complete all pre-upgrade tasks, you risk a failed upgrade, duplicate activities, or damaged user records that you must redefine manually. Follow all processes carefully.

> **Note:** For best results with earlier versions of iMIS, complete the upgrade to 15.1.3 before proceeding.

In addition to these cautions, review the New Features to evaluate the impact on your existing implementation.

> **Note:** The installer now removes any existing files for unsupported products, which includes e-CM, e-CM 5.1 publishing service, e-Series, and iBO for COM. All Actions and Constraints are removed from BOD, to support optimal performance and scalability. These products are deprecated and no longer supported in iMIS. Contact an ASI representative for more information.
>
> If you added any actions or constraints to your own business objects, be aware that they will no longer run when your business object is used.

> **Note:** It is also required that after an upgrade, you republish all folders to regenerate a searchable index for content records.

> **Note:** If previously installed, the iMIS public view will be updated during an upgrade process. However, the iMIS public view cannot be added during the upgrade process by modifying the installer.

### Upgrading iMIS

In a basic upgrade, you run setup on a single iMIS server, specifying a **Complete** installation. To create a more sophisticated server architecture, you can choose a **Custom**

option to install specific iMIS applications and options on any computer. The database work is automated. You choose whether to create an iMIS database or upgrade an existing one.

> **Note:** For testing purposes, ASI provides a demo database that includes reference site definition and content, as well as sample records (sign in as **cbaker/cbaker** and change the password). It must be installed on a SQL 2008 (or newer) case-insensitive server.

The processes of upgrading and installing are almost identical, except that upgrading requires connection to your existing database so that the installer can automatically run the **DB Upgrader** utility during the process.

> **Note:** Review the README file that is included with the Production Release self-extracting zip file.

Do the following to upgrade iMIS:

1. Finish all tasks in Prepare all servers and workstations and review the System Requirements.
2. Any Advanced Accounting Console navigation item that uses the **Open the link in a new window** option needs to be deselected prior to the upgrade. Otherwise, the site administrator will need to remove and recreate the navigation item and recreate it.
3. Have all users log out of iMIS.
4. Uninstall iMIS if any of the following have been changed manually since the last upgrade:
   - Database name
   - Database server name or IP
   - Virtual directory name
   - Machine name
   - Path to **iMISPublic** or **iMIS**
5. If you have **Analytics** installed, remove it to avoid triggering reinstallation and reconfiguration of a new analytics database and analysis server:

a. Back up your Analytics files, for example:

```
move "C:\Program Files\ASI\iMIS\Analytics" "C:\Program Files\ASI\iMIS\Analytics.bak"
```

b. Go to **Control Panel > Programs and Features**.
c. Open **iMIS** to access the installer options.
d. Select **Modify**, expand **Optional Components**, and deselect **iMIS Analytics**.
e. Select **Next** as needed.
f. Click **Finish**. Proceed with the upgrade.

6. On your application server host, temporarily disable tools and settings that might interfere with the installation.

- Disable anti-virus software.

7. Run the product setup.exe. The following prompt is displayed:

```
A previous version of iMIS has been found installed and will be upgraded. Is it OK to Continue?
```

> **Note:** Installs to the default website are no longer supported. If the previous install used the default website, you will be required to enter a new virtual root name. Enter the name and click **Next**. The upgrade converts the default website to use the virtual root name you provided. See Redirecting to the virtual directory URL for information about redirecting the URL of your default website to the URL of the virtual directory. After an upgrade, the server connection information for the Advanced Accounting Console must be edited. Set the host location to **http://[*machinename*]/[*newvirtualrootname*]/cs**, where the new virtual root name is the virtual root name entered during the upgrade. See **iMIS Advanced Accounting Console** for information about changing the host location.

8. Click **Yes**.
9. A prompt to confirm the database upgrade is displayed. Click **Yes**.
10. The **iMIS Upgrade** page is displayed. Click **Next**.

> **Note:** If you have an existing WCM-only install already installed on the server you are upgrading, a dialog box is displayed:
> WCM-only installs are no longer supported. Would you like to convert this to a full application server installation?
> -Click **Yes**. The installer will continue to perform a complete install.
> -Click **No** if you do not want to install a full installation. The installer will exit.

11. The **Current settings** page is displayed. Click **Next**.
12. The **iMIS Database Upgrader** begins automatically upgrading your database, and it closes on completion.

> **Note:** After you click **Next**, there is a pause before the upgrade process begins. This is normal functionality.

13. The **InstallShield Wizard Complete** window is displayed. Review all messages that are displayed on the completion page.
14. Click **The database upgrade succeeded. Select to view upgrade log details**.
15. Click **Finish**. The **iMIS Database Upgrader** log is displayed. Review the upgrade logs to confirm database upgrade success and any additional post-upgrade needs. Scan the most recent **IMISDBUpgrade.log** file for the following error message, which indicates a failed database upgrade:

```
*** UPGRADE PROCESS ENDED WITH ERRORS !!! ***
```

If you find this error message, your database was not successfully upgraded. You must fix the data and upgrade again:

a. To locate the problem, identify which upgrade script failed. Scroll up through the log until you find the header stamp that immediately precedes the error message. Header stamps look like the following:

```
= iMIS x.x.x.x to iMIS x.x.x.x Database Upgrade Driver Script =
```

b. Fix the data in the current version of the database. The process will upgrade from where it

stopped.

c. Restart the upgrade. In **iMIS Database Upgrader**, click **Begin Upgrade**.

16. Manually recreate any full-text indexes that you dropped. See Prepare all servers and workstations.
17. If the local protected path of the Asi.Scheduler was changed, edit the web.config file on the iMIS server and change the value for **IndexPath** to **..\<*new_path*>\Search\Lucene**. The new value for **IndexPath** must have **\Search\Lucene** appended. The newly created path should be at or below the webroot of your iMIS install. A relative path should also be used for the IndexPath key in the **C:\Program Files (x86)\ASI\iMIS\Net\web.config** file.

> **Note:** Editing the web.config file is only necessary if the local protected path of Asi.Scheduler was modified.

18. Reboot the server to ensure that logon handling is properly initialized. Failure to initialize might result in user passwords being openly displayed (unmasked) during logon.
19. You must republish all content folders to regenerate a searchable index for content records. To regenerate a searchable index without affecting publish dates, do the following using the Staff site.

> **Note:** The Shared Folders content folder will appear empty until you republish this folder.

> **Note:** When creating a copy of a sample website, the copied website's content will not be included in search results until the content has been published and the Default Website (for search) has been selected for the copied website's content folder.

a. Go to **RiSE > Page Builder > Manage content**.
b. Select all content folders, or select the root (**@**) content folder.
c. Click **Publish**.
d. Select the **Publish Working Items, Regenerate Published Items** radio button.
e. Click **OK**.

> **Note:** If you are using a standard **Communities** layout, you must update the default layout for each community to point to the iCore folder.

20. Check the Settings for any new fields and configure as desired.
21. If you are using a standard Communities layout, you must reselect a layout for each community that points to the iCore folder:
    a. Go to **Community > Moderate communities**.
    b. Edit an existing community definition.
    c. Click **select** for the **Community Layout** field to select the desired layout.
    d. Save the definition.
    Failure to reselect a standard layout might result in the Community's content being displayed outside of your website's frame.

    Alternatively, do the following to make sure the Display within the template checkbox is enabled:

    a. Go to **RiSE > Page Builder > Manage content**.
    b. Select your community layout.
    c. Click **Edit**.
    d. Select the **Properties** tab.
    e. Check **Display within the template**.
22. If your website uses an out-of-the-box master page, including **Forest.master**, **Sapling.master**, **Planets.master**, and **Cities.master**, you might notice that the copyright statement disappeared after upgrade.
    To resolve this, you must copy the sample **Footer Copyright** content record into your website's **ContentAreas** folder.

    Once this has been completed and published, you will see the copyright statement at the bottom of your website. This will give you the ability to make changes to the copyright statement using the Edit tool.

### Upgrading a second instance of iMIS

> **Note:** Where you see local paths specified, be sure to use the path appropriate for your system, such as **C:\Program Files (x86)** or **C:\Program Files**.

> **Note:** The following procedure uses the specific name **ASI_2** to represent the root folder of your second instance of iMIS. Substitute the actual name of the root folder of your second instance.

1. Delete all of the files from the **ASI_2** folder structure that comprises your second instance of iMIS.
2. Apply the update release to your original instance of iMIS first, following the instructions in the update release notes.
3. Copy the contents of your updated **ASI** folder structure from your original instance and modify the access control lists:

a. Copy the entire contents of the **ASI** folder (your original instance of iMIS) and all of its sub-folders into the **ASI_2** folder.

b. Modify the access control lists for the new folder by running the following from a command line against that folder:

```
ICACLS "Program Files (x86)\ASI_2" /t /grant Users:F
ICACLS "Program Files (x86)\ASI_2\iMIS\Net" /t /grant "Network Service":F
```

4. Run iMIS DB Upgrader on the database used by the second instance:

a. Locate and run the **DBUpgrader.exe** utility that is located in the **ASI_2** folder structure (**C:\Program Files (x86)\ASI_2\iMIS\net\iMISDBUpgrade**).

> **Warning!**
>
> Caution: Do not launch **iMIS DB Upgrader** from the Start menu. That shortcut launches the utility associated with your original instance of iMIS.

b. Specify the location of the iMIS database used for the second instance of iMIS and the password for the iMIS SQL Server login on that SQL Server instance. Click **Begin Upgrade**.

c. The message **Upgrade Completed** is displayed at the bottom of the window when the upgrade completes. Click **Exit Upgrade**.

5. Run the Multi-Instance Utility, **AsiMultiInstanceUtility.exe**, specifying the path, virtual directory, and so forth for the second instance in the same way as for a new second instance.
6. Disable **Configure Services (uncheck for patches)**. This leaves existing services in place for the second instance.
7. Click **Reconfigure iMIS site**. The utility displays status information as it performs the following:

- Updates .config files
- Updates the **SystemConfig** table in the database
- Creates an ODBC DSN entry for the new database instance

The message **Configuration Successful** appears when the utility completes its tasks.

8. Test the upgraded second instance:

a. Log on to Advanced Accounting Console as MANAGER.
b. Go to **System Admin > iMIS management > System Summary**.
c. Ensure that the database, web server, and SMTP server information are correct for this second instance of iMIS.
d. Use a browser to test the other views of iMIS for this second instance.

## Completing post-upgrade tasks

Perform the post-upgrade tasks that follow, and upgrade your existing sites and content items as needed.

> **Note:** You must install **hotfix (A)** after completing an initial install of 20.2, or an upgrade to 20.2. You can access this hotfix by going to ftp://ftp.advsol.com/download/Restricted/Hotfixes/20_2_1_GA/20.2.1(A)_SMR340168_and_SMR342275.zip. Contact ASI Technical Support for further assistance.

> **Note:**
> *Upgrading for VAT:* iMIS now stores all order and order line amounts as VAT-inclusive. DB Upgrader takes care of updating all of your existing order data to be

consistent with your new order data. Flags on the record ensure that the update occurs only once, and your original data is backed up (`Orders_BAK` and `Order_Lines_BAK`). This universal change to storing order amounts as VAT-inclusive is unrelated to whether you set AR/Cash VAT Options to be VAT Exclusive. See Configuring VAT accounting options.

### Upgrading the On Behalf Of role

Security is added to the **On Behalf Of** role to allow only **Full** users to be assigned to this role. After upgrade, all **Casual** or **Public** users who were previously assigned to the **On Behalf Of** role are removed from this role. To add this role back to contacts, change the contact to a **Full** user.

### Upgrading Content Items

Version 15.2 optimized and improved the APIs that support content items. Therefore, you must modify any content items you developed for Version 15.1 to have those content items work with these API changes. Do the following:

1. In your content item project, remove references to **Asi.Web.iParts.Common.Utilities** and **Asi.Web.iParts.Common.WebControls**. Version 15.2 deprecated these assemblies and moved their functionality.
2. In your content item code, remove any using statements that reference the namespaces from Step 1.
3. If you are using the **TitleBar** control, make sure your project references the **Asi.Web** assembly. In your web controls and pages, update the **TitleBar** control to reference the new assembly and namespace:

- Assembly change: **Asi.Web.iParts.Common.WebControls** becomes **Asi.Web**
- Namespace change: **Asi.Web.iParts.Common.WebControls** becomes **Asi.Web.UI.WebControls**

For example, the line:

```
<%@ Register TagPrefix="ipartCommon" Assembly-
y="Asi.Web.iParts.Common.WebControls
    Namespace="Asi.Web.iParts.Common.WebControls" %>
```

becomes:

```
<%@ Register TagPrefix="ipartCommon" Assembly="Asi.Web"
    Namespace="Asi.Web.UI.WebControls" %>
```

4. Replace the use of A**ppContext.CurrentIdentity.ContactMaster** with **SecurityHelper.LoggedInImisId**.

   **Note:** When you only need to check for a logged in user, use **SecurityHelper.IsAuthenticatedUser**.

5. Version 15.2 deprecated **Asi.Web.iParts.Common.Utilities.Helper** class and moved its methods to **Asi.Security.Utility.SecurityHelper** and **Asi.Utilities.PartHelper**. Modify any uses of the **Helper** class as shown in the following.

   **Note:** When using the new classes, you must either fully qualify the class namespace or add the appropriate **using** statement to your code.

- Methods moved:
- **Helper.CheckDisplayAsEmpty > PartHelper.CheckDisplayAsEmpty**
- **Helper.FindControls > PartHelper.FindControls**
- **Helper.FindControlsRecursive > PartHelper.FindControlsRecursive**
- **Helper.GetSelectedImisId > SecurityHelper.GetSelectedImisId**
- **Helper.LoggedInImisId > SecurityHelper.LoggedInImisId**
- Methods no longer supported, so refactor:
- **Helper.GetSelectedImisIdWithException**
  When used to check for an authenticated user, replace with **SecurityHelper.IsAuthenticatedUser**.
- **Helper.ImisConnection**

When used to check for an authenticated user, replace with **SecurityHelper.IsAuthenticatedUser**. When used to retrieve a **CContactUser** object, use **iBO.ContactManagement.CContactUser.LoginByWebLogin(AppPrincipal.CurrentIdentity.LoginName)**.

> **Note:** It is recommended to use the SOA data access library in place of the iBO library when possible.

- **Helper.SetCurrentContactKey**
- **Helper.SetSelectedImisId**

**Upgrading an iMIS 15.2.7-and-higher website with Cities, Forest, Mountains or Planets master pages**

If you are upgrading from iMIS 15.2.7-and-higher to the current iMIS release, and your website uses the Cities, Forest, Mountains or Planets master pages, you must add a **Create Account** navigation item to your sitemap. You can copy from one of the quick start sites. Do the following:

1. Go to **RiSE > Site Builder > Manage sitemaps**.
2. Select **Member** in the drop down list.
3. Select the **Create Account** navigation item.
4. Select **Organize > Copy**.
5. In the drop down list, select your website.
6. Select the root (~) navigation item
7. Select **Organize > Paste**.
8. Place this navigation item where you want it to appear.
9. Select **Publish**.

**Upgrading system alerts**

When you upgrade to a new version of iMIS, several system alert tasks are enabled and set up to display to website users by default. After an upgrade, you should review the system alerts tasks to confirm that you do want these alerts to display to users. The review process will differ depending on whether or not you are licensed for advanced tasks.

If you have the advanced tasks license:

You should review the system alerts tasks to confirm that they are configured appropriately for your organization. If you do not want a system alert task to generate an alert that displays to users, you need to disable the task.

1. In the Staff site, go to **RiSE > Process automation**.
2. Select the **Tasks** tab.
3. Open and review the alert tasks.

a. If you do not want to use a system task, deselect **Enabled**.
b. Confirm that the task uses an appropriate **Conditions** data source. The task only runs when the data source returns records.
c. Confirm that the **Alert** is configured appropriately.

4. Review the query data sources used as conditions in the enabled tasks. Data sources are located at **$/Common/Tasks/Queries** in the Document System. If you want to modify a query data source:

a. Copy the query.
b. Modify your version of the query.
c. Update the task to use the new **Conditions** data source.

5. Go to **RiSE > Process automation**.
6. Select the **Alert sets** tab and confirm that the alert tasks are located in the appropriate alert set.

---

If you do not have the advanced tasks license:

You cannot edit the out-of-the-box alert tasks, but you can control whether or not they display on your website by including or removing them from the system alert sets. If an alert task is not included in an alert set, it does not display.

1. In the Staff site, go to **RiSE > Process automation**.
2. Select the **Alert sets** tab.
3. Open the alert set you want to edit.
4. To add an out-of-the-box alert task to the set:

a. Select **Add New**.
b. Select the alert task you want to include from the **Task** drop-down.
c. Save the task.
d. Use the arrows to arrange the alert tasks in the desired order.

---

5. To remove an out-of-the-box alert task from the set:
a. Select the alert set.
b. Choose **Delete selected**.
c. Click **OK** to confirm the deletion.
6. Save the alert set.
   See Displaying automated alerts for more information.

**Redirecting to the virtual directory URL**

iMIS no longer supports installs to the default website. If you previously installed to the default website, you will need to use the URL Rewrite module to redirect the URL of your default website to the URL of the virtual directory.

For example, an organization that had previously installed iMIS to the **http://golive.advsol.com/** default website has uprgraded and now installs to an **/ASI/** virtual directory. The organization wants users who try to access **http://golive.advsol.com/** to be redirected to **http://golive.advsol.com/ASI/**.

> **Note:** You can only use the **URL Rewrite** module to redirect the URL of the default website to the URL of the virtual directory when the default website and virtual directory use the same application pool.

Redirecting to the virtual directory URL using URL Rewrite

Do the following to redirect the URL of your website to the URL of the virtual directory using **URL Rewrite**:

1. Go to **IIS Manager > Sites >Default Web Site**. The **URL Rewrite** module will be visible in the **IIS** group.
2. Double-click **URL Rewrite**.
3. In the **Actions** pane, select **Add Rule**.
4. Select **Blank Rule** and click **OK**.
5. Specify a **Name** for the rule.
6. In the **Match URL** area, do the following:
a. Select **Matches the Pattern** for the **Requested URL**.
b. In the **Using** drop-down list, select **Regular Expressions**.

c. Enter **.*** for the **Pattern**.
d. Select the **Ignore Case** checkbox.
7. Expand **Conditions**. In the **Conditions** area, do the following:
a. Click **Add…**.
b. Enter the following for the first condition:
- Enter **{HTTP_HOST}** as the **Input**.
- In the **Check if input string** drop-down list, select **Matches the Pattern**.
- Enter `^FQDN$` as the **Pattern**. (For example, `^golive.advsol.com`.)
- Click **OK**.

c. Click **Add…**.
d. Enter the following for the second condition:
- Enter **{PATH_INFO}** as the **Input**.
- In the **Check if input string** drop-down list, select **Does Not Match the Pattern**.
- Enter `/*VirtualDirectoryName*/` as the **Pattern**.
- Click **OK**.

8. In the **Action** area, do the following:
a. Select **Rewrite** as the **Action type**.
b. Enter `/VirtualDirectoryName/{R:0}` as the **Rewrite URL**.
c. Select the **Append query string** checkbox.
d. Select the **Stop processing of subsequent rules** checkbox.
9. In the **Actions** pane, click **Apply**.

Setting up an iMIS site at the root of an IIS web site

Do the following to set up an iMIS site at the root of an IIS web site:

1. Launch **IIS Manager**.
2. In the left navigation, right-click **Sites** and select **Add Web Site**.
3. Enter the following information:
a. Site name: **www.*domainname*.com**
b. Physical path: The default path is **C:\Program Files (x86)\ASI\iMIS\Net**. Change this path to reflect your new iMIS path (for example, **C:\Program Files (x86)\ASI*domain-name*\Net**).
c. Binding: Change the IP address to the address assigned to this site.
d. Host name: **www. *domainname*.com**

4. Add an SSL site binding. Select the site, then click **Bindings** and then **Add**.
5. Enter the following information:

a. Type: **HTTPS**
b. IP address: The IP address of the site.
c. Port: **443**
d. SSL Certificate: Select the certificate for **www.*domainname*.com**.

> **Note:** A new DNS record will need to be added to your DNS Server to associate the new **www.*domainname*.com** with the external IP address.

6. To test the new **www.*domainname*.com**, add a host file:

a. Open the **C:\Windows\System32\drivers\etc\hosts** file in a text editor application.
b. Add the following line to the end of the hosts file:

```
[IP address of the site]    www.fullurl.com
```

7. You must update the URLs for your RiSE websites to reflect the new URL:

a. In the Staff site, go to **RiSE > Site Builder > Manage websites**, and select your website.
b. Change the following fields:

- **URL(s) pointing to the IIS website root** – http://www.*domainname*.com
- **Secure URL(s) pointing to the IIS website root** – https://www.*domainname*.com

**Testing access to installed components**

Do the following tests as appropriate for your system.

The password for the **MANAGER** account is **manager** or **MANAGER** as required by the case sensitivity of your SQL Server instance (new installations), or else it is the **MANAGER** password for your existing iMIS database (upgrades).

> **Warning!**
>
> Be sure to change the default **MANAGER** password before going live. In Advanced Accounting Console, go to **System Setup > Security administration > Users**, find **MANAGER** with a query on **Users**, and edit the **User Credentials**.

1. Test the administrative view:
   - On the iMIS server, choose **Start > All Programs > ASI > iMIS > iMIS Desktop**.
   - Test that you can log on as **MANAGER**.
   - Verify that the iMIS Home page is displayed, indicating that the connections are working.

   > **Note:** Allow several minutes for the **Home** page to open for initial logons after installing or restarting.

2. Test the staff view:
   - On the iMIS server, browse to your staff view, such as **http://*<iMIS server>*/iMIS/staff**.
   - Verify that the iMIS **Home** page is displayed, indicating that the connections are working.
   - Test that you can log on as **MANAGER**.
3. (optional) Test the public view, if installed:
   - On the iMIS server, browse to your public view, such as **http://<iMIS server>/imispublic**.
   - Verify that the public welcome page is displayed, indicating that the connections are working.
   - Test that you can log on as **MANAGER**.

## Upgrading existing websites

An upgrade might affect website content, content items, and structures. Be aware that any existing site that you upgrade might need adjustments due to the impact from these changes.

### Website upgrade strategy

Every release of iMIS includes changes to themes to accommodate new functionality and designs. Changes are often made to CSS, skin, image and master page files. While you might have made minimal changes to your iMIS look and feel, you might have made extensive changes to tailor the design for your organization. Regardless of your situation, the steps for upgrading your iMIS-themed website are the same.

> **Note:** Extensive changes have been made to various master pages. If you have customized an iMIS master page, you might need to copy those customized changes to the updated master page after you perform an upgrade.

Do the following to avoid possible layout problems or missing images.

> **Note:** Back up your current theme and master page before you upgrade, so that you do not lose changes.

- After you upgrade:
- Compare your theme and master page to the upgraded out-of-the-box theme or master page on which your theme and master page are based. For the CSS, skin and master page files, use a merge tool to merge the new theme files into yours, making sure that you do not overwrite any of your customizations. If you made no changes, as is often the case with skin files, overwrite your version of the file with the updated version.
- For the image files, copy any new images to the **images** and **Menu** folders. There might be conflicts between your changes and the iMIS updates, which you must resolve on a case-by-case basis for your design.
- Test the changes. Click through your website to review the theme updates. You might need to adjust new styles or images for your design.

  Custom Layouts

  The grid system in iMIS has been enhanced to include the Bootstrap grid system. This new system provides more powerful and flexible grid options including up to 12 columns per row and simple nesting. All out-of-the-box layouts and content have been updated to use the new grids. If you have custom layouts and want to take advantage of the new grid system, follow the steps in this section to update your layouts.

  Update existing layouts to use the new grid system

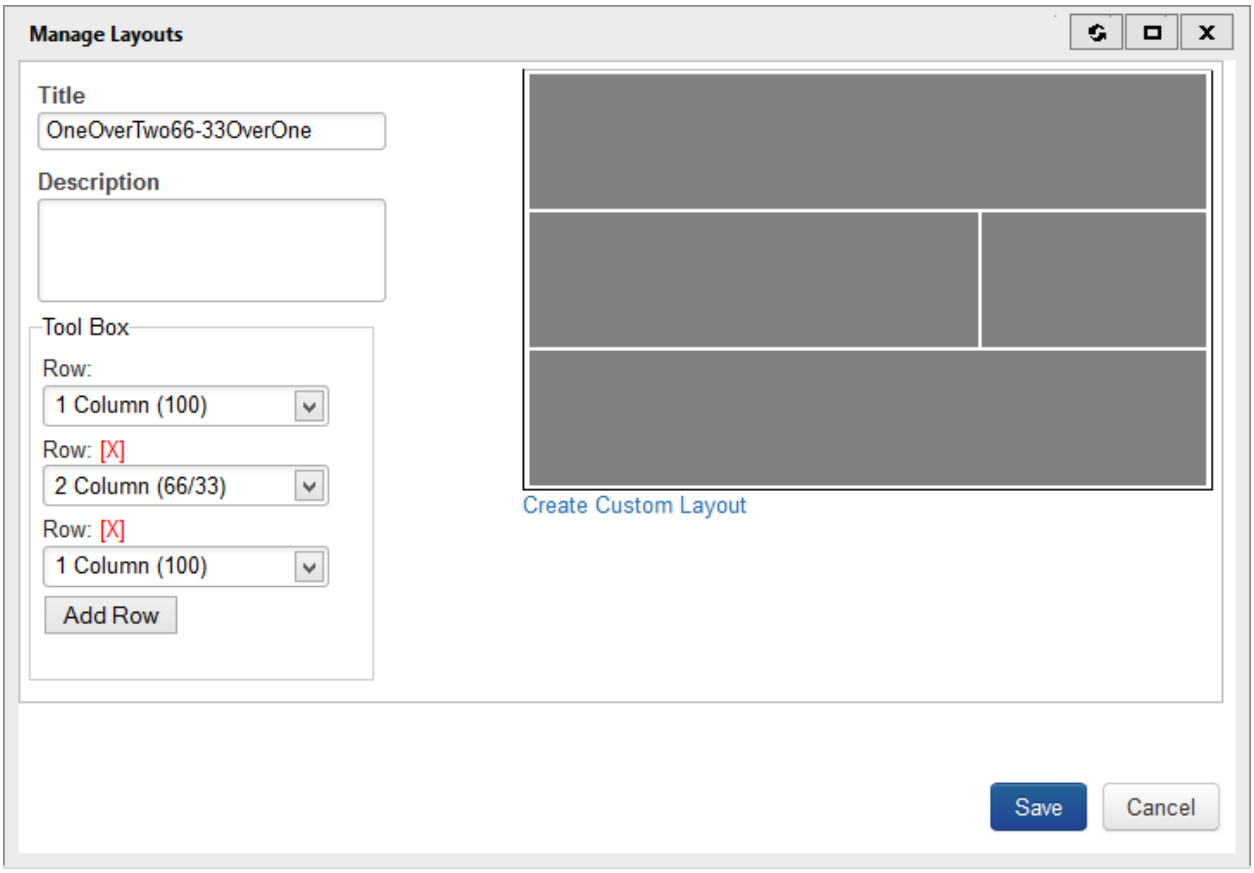
  Do the following to update existing layouts to use the new grid system:

1. Go to **RiSE > Page Builder > Manage layouts**.
2. Open each of your custom layouts for editing. The way in which you update your layouts to use the new grids depends on if the layout was built using the Grid Builder, or if it was hand-coded.

- Grid Builder layout example:

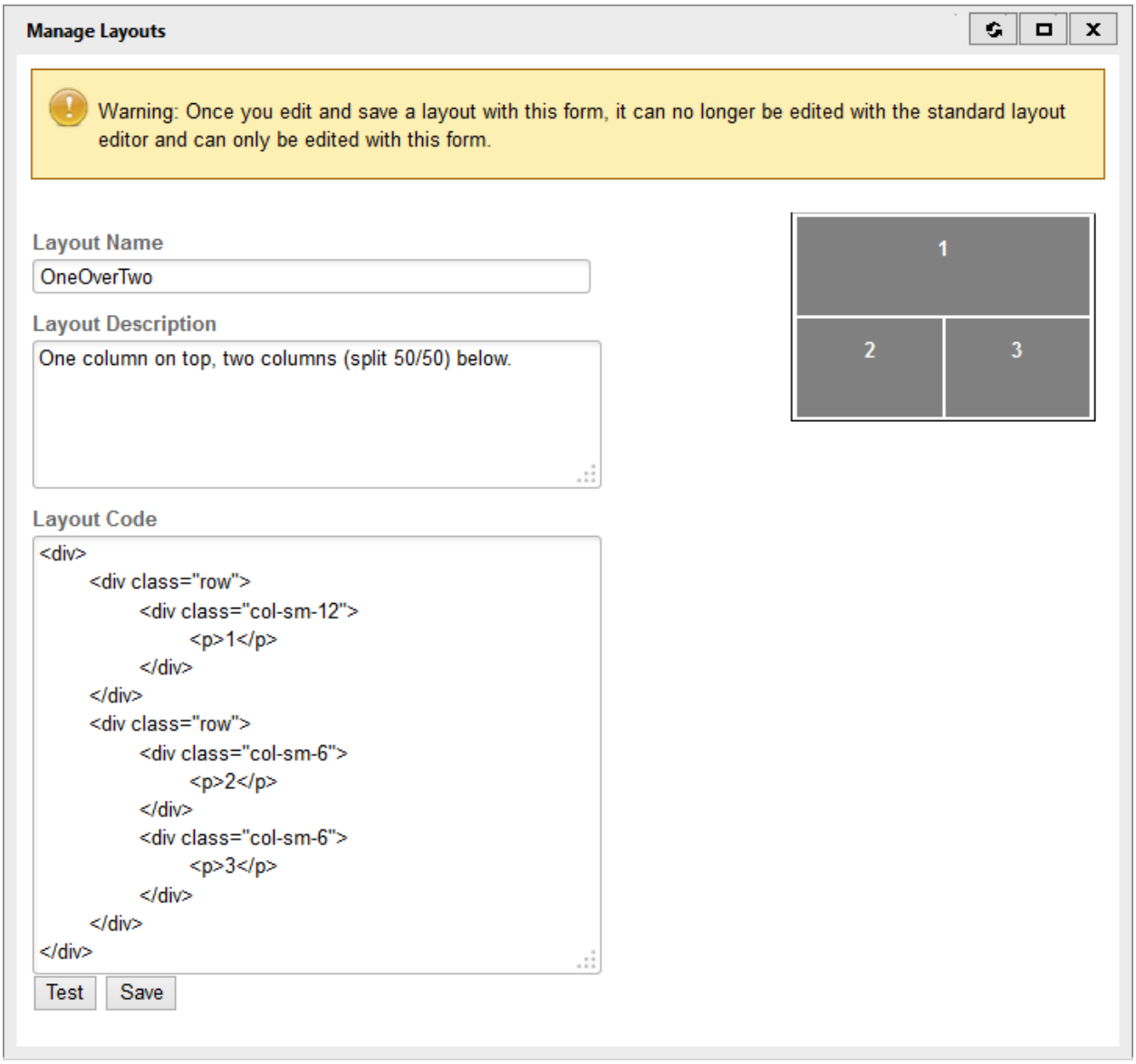
  If the layout was built using the Grid Builder you only need to click **Save** and close the window. This automatically converts the grid to use the new Bootstrap classes.

  Click to view image




- Hand-coded layout example:
  If the layout was hand-coded, you will need to convert the layout by hand. For help with creating your own grids, see the iMIS topic about the Bootstrap Grid system documentation. Once you have updated the layout to use the new classes, save and close the window.

  Click to view image




3. After all of the layouts have been updated, you need to re-publish all of your content, so that the web pages are re-generated using the new layouts. Go to **RiSE > Page Builder > Manage content**.

a. Select the content you need to publish (you can even select the root or folder that contains the content), then click **Publish**.

b. In the publish pop-up, select the option labeled **Publish Working Items, Regenerate Published Items**.

Box model changes

The CSS box model used in iMIS is standardized. The box-sizing CSS property is used to correctly calculate the widths and heights of elements. To do this, the following declaration has been added to **reset-fonts-grids.css**:

```
*,
*:before,
*:after {
    -webkit-box-sizing: border-box;
    -moz-box-sizing: border-box;
    box-sizing: border-box;
}
```

**Note:** For more information about box-sizing, see this article by Paul Irish.

This change may have implications on your site design if you have a highly customized theme. After upgrade, be sure to review the pages of your site and keep an eye out for any layout problems related to padding and borders. You may need to adjust your styles to increase or decrease these values.

For example, if you have any styles that define the width and padding of an element, you will likely need to adjust the width of the element. Consider the following declaration:

```
.MyClass {
    width: 15px;
    padding-right: 10px;
    padding-left: 10px;
}
```

Before the box-model change, the width of this element would have been 35px, because adding padding used to also increase the width of the element. However, after the box-model change, this is no longer the case. The width defined for an element is the final width - it does not change when you add padding. To solve this, change the width of any element to reflect the actual width you want:

```
.MyClass {
    width: 35px;
    padding-right: 10px;
    padding-left: 10px;
}
```

UltraWave

We have made several improvements to the base UltraWave styles, including combining the various style sheets into a single resource and dynamically including them on each page using a **<link>** in the page head, rather than **@import** in CSS.

Do the following to take advantage of these improvements:

1. In your theme's style sheets you might find a block of code that looks like the following:

```
/*##########################################*/
/*    Import UltraWave StyleSheets    */
/*##########################################*/
@import url("../UltraWave/00-Reset.css");
@import url"../UltraWave/10-UltraWave.css");
@import url("../UltraWave/11-ObjectBrowser.css");
```

Remove these lines from your theme.

> **Note:** If you have 00-Reset.css, 10-UltraWave.css, or 11-ObjectBrowser.css directly included in your theme, it's a good idea to remove them to avoid style conflicts.

2. Add a new ThemeSettings.xml file to your theme, as outlined in Creating a custom theme. This will ensure that UltraWave is loaded in your site.

**Updating sites that have page errors**

Some content items were renamed or removed from the **Content Gallery**. This affects all content records on which you placed these content items. Be sure to review your site so that you can discover and address any page errors arising from upgrades to content and

content items. Do the following:

1. Navigate through your upgraded iMIS content management site and note any pages that show errors.
2. Go to **RiSE > Page Builder > Manage content**.
3. Delete the problematic content records.
4. Recreate the content record using the renamed content item or another content item, as appropriate.
5. Go to **RiSE > Site Builder > Manage sitemaps**.
6. Select your site.
7. **Edit** the affected navigation item to point to the new content record.
8. Click **Save**.
9. Click **Publish**.
10. Click **OK**.

**Upgrading older sites**

Updating 1700 sites

WCM sites using the 1700 template do not import the UltraWave theme files like other RiSE sites. After you upgrade, manually copy **00-Reset.css**, **10-UltraWave.css**, and **11-ObjectBrowser.css** from **C:\Program Files\ASI\iMIS\Net\App_Themes\UltraWave** to your 1700 theme folder, overwriting the existing files.

Updating 1600 sites created in 15.1.2

WCM sites based on the 1600 template now use the text resizing accessibility feature available in Internet Explorer 7 and later. To update an existing site, you can modify the CSS files on your web server, as described in Support's April 2010 TechLet.

> **Note:** To ensure you have all the required edits, create a new 1600 template site and compare the content of these five files to your existing 1600 template site.

Upgrading 15.1.1 WCM sites

If you have an existing WCM site on a 15.1 installation, you must modify your **01-iMIS.skin** file to gain access to the latest web controls. Otherwise, you will see a parser error that the system cannot load **RadGrid.Net2** and additional web controls.

1. With a text editor, open **C:\Program Files\ASI\iMIS\net\App_Themes\WCMSiteName\01-iMIS.skin**.
2. In the **Register** elements at the top of the file, replace the five lines shown below under 15.1.1 with the one line shown under 15.1.2 and later versions.
   **15.1.1:**

```
<%@ Register Assembly="RadGrid.Net2" Namespace="Telerik.WebControls" TagPrefix="radG" %>
<%@ Register Assembly="RadSplitter.Net2" Namespace="Telerik.WebControls" TagPrefix="radS" %>
<%@ Register Assembly="RadMenu.Net2" Namespace="Telerik.WebControls" TagPrefix="radM" %>
<%@ Register Assembly="RadUpload.Net2" Namespace="Telerik.WebControls" TagPrefix="radU" %>
<%@ Register Assembly="Telerik.Web.UI" Namespace="Telerik.Web.UI" TagPrefix="rad" %>
```

   **15.1.2 and later versions:**

```
<%@ Register Assembly="Telerik.Web.UI" Namespace="Telerik.Web.UI" TagPrefix="telerik" %>
```

3. Save the **01-iMIS.skin** file.

# Upgrading iMIS

Use the following checklist as a roadmap for upgrading your iMIS application.

| Before you begin | |
|---|---|
| | Review system requirements |
| | Review 20.2 Upgrade changes |
| | Install additional required components |

| | |
|---|---|
| | Prepare the application server |
| | Prepare databases for an upgrade |
| | (optional) Refresh metadata |
| | (optional) Delete Database Engine Tuning Advisor Index |
| | Prepare to upgrade your websites |
| **Upgrade iMIS** | |
| | Download the iMIS product image |
| | Have all users log out of iMIS |
| | Uninstall iMIS |
| | Temporarily disable tools and settings |
| | Run the iMIS setup.exe |
| | Upgrade additional instances of iMIS |
| **Post-upgrade tasks** | |
| | Upgrade the On Behalf Of role |
| | Upgrade content items |
| | Upgrade website master pages |
| | Upgrade system alerts |
| | Redirect to the virtual directory URL |
| | Test access to installed components |
| **Upgrade existing websites** | |
| | Review website upgrade strategy |

| | |
|---|---|
| | Update sites that have page errors |
| | Upgrade older sites |

*See also*

- iMIS Maintenance
- Reference information
- Troubleshoot iMIS installation and upgrades

## Before you begin your upgrade

Use the information in this section to prepare to upgrade iMIS.

Refer to the following as part of your upgrade procedure:

- Install additional required components
- Prepare all servers and workstations

### Preparing databases for an upgrade

Do the following to prepare a database for an upgrade:

1. If you added any navigation items to the **iMIS Desktop view** that use the **Open the link in a new window** option, disable that option or delete the items and make a note to restore them after upgrading. Otherwise, the site administrator will need to remove the navigation item and then recreate the navigation item.
2. If the **WebPartGalleryEntryRef** table exists, then to prevent an upgrade error, ensure that all custom content items contain a description by running the following script and manually updating any rows returned with a description:

```
SELECT *
FROM [dbo].[WebPartGalleryEntryRef]
WHERE ([WebUserControlPath] IS NOT NULL OR [WebPartTypeName] IS NOT NULL)
    AND ([WebPartDescription] IS NULL OR [WebPartDescription] = '')
ORDER BY [WebPartName]
```

3. To prevent duplicate key upgrade errors resulting from bad registration records, run the following scripts:

- **No ShipTo ID** – A registration record without an ST_ID occurs when entering new contact records through the Events registration **Attendee** tab in Advanced Accounting Console without enabling **Add to Master**. To find such problems, run the selection part of the script (Step 0). If you receive any results, run the entire script (Steps 1 through 3):

  ftp://ftp.advsol.com/download/Restricted/UpdateMeetingOrdersWithNoSTID.sql

  Although this script lets you upgrade your database successfully, it does not prevent future problems. To avoid recreating the problem, always enable **Add to Master** when entering new contact records through the Events registration **Attendee** tab.

- **Duplicate registration** – An error also occurs if your database contains duplicate event registration records for the same event. Run the selection script to locate these records:

  ftp://ftp.advsol.com/download/Restricted/SelectDuplicateRegistrations.sql

  Often the best fix is to close the event, which creates activity records for each registrant and purges all related entries in `Orders`, `Order_Lines`, `Order_Meet`, and `Order_Badge`.

4. If you use SQL Server's Database Engine Tuning Advisor to create additional index statistics, note that these are deleted during upgrade and will have to be re-added, if needed. See Deleting Database Engine Tuning Advisor index statistics.
5. In iMIS, post any open A/R Cash batches manually. If not, the upgrade might duplicate DUES activities.
6. If you customized any standard business objects, examine their properties in Business Object Designer (BOD) and record your changes so that you can reproduce them after upgrading.

   **Note:** New business objects that you created with Business Object Designer are automatically upgraded, but standard business objects might be overwritten.

7. Itemize any other customizations and locate their upgrade instructions.
8. (*SQL Server 2000*) Upgrade to a supported version of SQL Server, relocate your iMIS database to the new service, and upgrade using the relocated database.

> **Note:** Be sure to uninstall iMIS from your application server, install the new version of iMIS, and upgrade workstations with the remote installer from that application server.

9. In your SQL Server management environment, perform the following checks:
   - Check for database corruption by running **DBCC CHECKDB**.
   - Set the database option **Auto Close** to **False**.
   - (*if applicable*) Enable the database option to **Truncate Log on Checkpoint**. Be sure your database log has sufficient size and space to grow to twice the size of the largest table. Revert to your original log settings only after you have upgraded successfully.
   - Set the Recovery Model to **Simple** before running the iMIS upgrade. Record what you changed Recovery Model from, and change the setting back only after you have successfully upgraded.
   - Itemize, and then drop, all full-text indexes and catalogs, but avoid dropping other types of indexes before upgrading, as some upgrade procedures need them. After the upgrade, you can recreate them.
   - > **Note:** Failure to perform this step might cause the upgrade to fail.
   - If you have customized any ASI triggers, record your customizations so that you can reapply them after upgrading. All ASI triggers, procedures, views, and functions are replaced during upgrades, and all ASI indexes on tables are rebuilt.

     > **Warning!**
     >
     > Be sure that you are customizing new SQL. Do not overwrite preexisting code; this could break iMIS functionality.

   - Verify that all custom triggers and stored procedures in your iMIS database use only ANSI-compliant SQL (see Upgrade error for non-ANSI join operators).
   - If you have custom views, refresh their metadata (see Refreshing metadata for custom views).
10. Shrink your log file with the following SQL Script:

```
-- Shrink first log file of THIS database
DECLARE @sql nvarchar(1000)
DECLARE @dbName sysname
DECLARE @logName sysname
SELECT @dbName = DB_NAME()
SELECT TOP 1 @logName = [name] FROM sys.database_files WHERE [type_desc]
= 'LOG' ORDER BY [name]
SET @sql = 'DBCC SHRINKFILE( ' + @logName + ' , 1)'
EXEC (@sql)
SET @sql = 'ALTER DATABASE ' + @dbName + ' SET RECOVERY SIMPLE'
EXEC (@sql)
SET @sql = 'DBCC SHRINKFILE( ' + @logName + ' , 1)'
EXEC (@sql)
go
```

11. Back up your database.

> **Note:** For large databases, check that you have sufficient free disk space relative to the size of your database, as its tables are copied during the process of conversion and rebuilding for ANSI support.

> **Note:** You can run a pre-upgrade conversion on a backup to ensure that all non-ANSI-compliant tables can be rebuilt successfully. See Running a standalone ANSI conversion.

12. Verify that the database backup can be restored.

> **Note:** If the upgrade process fails for any reason, you can fix whatever caused the failure, restart the upgrade, and the process will pick up where it left off.

13. Schedule system downtime for the upgrade to occur.

> **Note:** To enable default ANSI settings, the upgrade utility rebuilds every non-compliant table and recreates all stored procedures, triggers, functions, and views. Because of this extensive rebuilding, expect upgrading to be significantly slower for very large databases.

Refreshing metadata for custom views

If you have custom SQL views, be sure to refresh the metadata for the views to avoid database errors when upgrading iMIS. Views are created with schema information (column data types and sizes) as the data exists at that moment. If a column is later changed, renamed, or dropped, the view's cached value is out-of-sync. Using such a view can cause errors and unexpected issues, such as strings being truncated. User-created views easily become out-of-date because the iMIS schema changes from version to version.

Do the following to refresh the metadata for custom views:

1. Review the following iMIS Community post: Refreshing View Meta-Data.
2. Check the report for errors. Keep in mind:
   - SQL Server only reports the first bad column it encounters in a given view, even if there are several bad columns. Run the script repeatedly until no errors remain.
   - If you have renamed the column in the view, the column name listed in this output is the original column name in the Table, not the name used in the View.
3. If any errors are reported, fix the problem views immediately. This might involve:
   - Renaming a column in your view definition
   - Dropping a column
   - Getting the data from a new or different table
   - Dropping an obsolete view
   - Republishing the associated Business Object in Business Object Designer, if the view name starts with vBo (an automatically generated view)
4. Once the view is fixed, run the script again.
5. When errors no longer occur, proceed with the upgrade.

Deleting Database Engine Tuning Advisor index statistics

If you use SQL Server's Database Engine Tuning Advisor to create additional indexes, be aware that **DB Upgrader** needs the additional indexes to be deleted before upgrading.

> **Note:** Not only should indexes be dropped before upgrading, but so should any Database Tuning Advisor-generated statistics.

> **Note:** After upgrading iMIS, you can re-add these indexes using the Database Tuning Advisor. However, iMIS gained many indexing improvements, so test the performance of your upgraded system to determine whether you still need these indexes.

If you are unsure whether tables in your database contain these statistics, run the following query:

```
SELECT OBJECT_NAME(s.[object_id]) AS TableName,
      s.[name] AS StatName
  FROM sys.stats s
 WHERE OBJECTPROPERTY(s.OBJECT_ID,'IsUserTable') = 1
      AND s.name LIKE '_dta_stat%';
```

### Preparing to upgrade your websites

Do the following to prepare to upgrade your websites:

1. If you have not kept track of changes implemented into your theme, perform a comparison between the theme files you originally copied and your updated files, including all CSS, skin, image, and master page files. There are many free file comparison tools available online.
2. If you have tailored any of the communication templates, such as the Default or Order Confirmation template, copy them to the **Templates** folder.
3. In the CSS, skin, and master page files, annotate the code in your copy to mark the changes you have made so that you can identify these changes after the upgrade.

4. Copy any original theme files to retain all style modifications after upgrade:
a. Copy a theme folder, for example, **C:\Program Files (x86)\ASI\iMIS\Net\App_Themes\Austin**, and rename the copied folder. Use a unique name for the theme folder copy, for example, **\<*my_organization*>Austin**.
b. Create a new CSS file with the same name you used for your theme folder. Use this file for storing override classes and new classes. This will allow you to get the latest theme files during an upgrade, but you will be able to keep all style modifications.
5. For the image files, note which images you have changed or added. For example, if you are currently on 15.2.5 and are using a copy of the Aspen2 theme, compare your copied files to the original 15.2.5 version of the **Aspen2** theme files. Themes are located by default in **C:\Program Files\ASI\iMIS\Net\App_Themes**.

> **Note:** Back up your current theme and master page before you upgrade, so that you do not lose changes.

## Upgrade iMIS

Upgrading iMIS is much like installing from scratch, with the addition of important pre-upgrade tasks. If you do not complete all pre-upgrade tasks, you risk a failed upgrade, duplicate activities, or damaged user records that you must redefine manually. Follow all processes carefully.

> **Note:** For best results with earlier versions of iMIS, complete the upgrade to 15.1.3 before proceeding.

In addition to these cautions, review the New Features to evaluate the impact on your existing implementation.

> **Note:** The installer now removes any existing files for unsupported products, which includes e-CM, e-CM 5.1 publishing service, e-Series, and iBO for COM. All Actions and Constraints are removed from BOD, to support optimal performance and scalability. These products are deprecated and no longer supported in iMIS.

Contact an ASI representative for more information.
If you added any actions or constraints to your own business objects, be aware that they will no longer run when your business object is used.

**Note:** It is also required that after an upgrade, you republish all folders to regenerate a searchable index for content records.

**Note:** If previously installed, the iMIS public view will be updated during an upgrade process. However, the iMIS public view cannot be added during the upgrade process by modifying the installer.

### Upgrading iMIS

In a basic upgrade, you run setup on a single iMIS server, specifying a **Complete** installation. To create a more sophisticated server architecture, you can choose a **Custom** option to install specific iMIS applications and options on any computer. The database work is automated. You choose whether to create an iMIS database or upgrade an existing one.

**Note:** For testing purposes, ASI provides a demo database that includes reference site definition and content, as well as sample records (sign in as **cbaker/cbaker** and change the password). It must be installed on a SQL 2008 (or newer) case-insensitive server.

The processes of upgrading and installing are almost identical, except that upgrading requires connection to your existing database so that the installer can automatically run the **DB Upgrader** utility during the process.

**Note:** Review the README file that is included with the Production Release self-extracting zip file.

Do the following to upgrade iMIS:

1. Finish all tasks in Prepare all servers and workstations and review the System Requirements.
2. Any Advanced Accounting Console navigation item that uses the **Open the link in a new window** option needs to be deselected prior to the upgrade. Otherwise, the site administrator will need to remove and recreate the navigation item and recreate it.
3. Have all users log out of iMIS.
4. Uninstall iMIS if any of the following have been changed manually since the last upgrade:

- Database name
- Database server name or IP
- Virtual directory name
- Machine name
- Path to **iMISPublic** or **iMIS**

5. If you have **Analytics** installed, remove it to avoid triggering reinstallation and reconfiguration of a new analytics database and analysis server:

a. Back up your Analytics files, for example:

```
move "C:\Program Files\ASI\iMIS\Analytics" "C:\Program Files\ASI\iMIS\Analytics.bak"
```

b. Go to **Control Panel > Programs and Features**.
c. Open **iMIS** to access the installer options.
d. Select **Modify**, expand **Optional Components**, and deselect **iMIS Analytics**.
e. Select **Next** as needed.
f. Click **Finish**. Proceed with the upgrade.

6. On your application server host, temporarily disable tools and settings that might interfere with the installation.

- Disable anti-virus software.

7. Run the product setup.exe. The following prompt is displayed:

```
A previous version of iMIS has been found installed and will be upgraded. Is it OK to Continue?
```

> **Note:** Installs to the default website are no longer supported. If the previous install used the default website, you will be required to enter a new virtual root name. Enter the name and click **Next**. The upgrade converts the default website to use the virtual root name you provided. See Redirecting to the virtual directory URL for information about redirecting the URL of your default website to the URL of the virtual directory. After an upgrade, the server connection information for the Advanced Accounting Console must be edited. Set the host location to **http://[*machinename*]/[*newvirtualrootname*]/cs**, where the new virtual root name is the virtual root name entered during the upgrade. See **iMIS Advanced Accounting Console** for information about changing the host location.

8. Click **Yes**.
9. A prompt to confirm the database upgrade is displayed. Click **Yes**.
10. The **iMIS Upgrade** page is displayed. Click **Next**.

> **Note:** If you have an existing WCM-only install already installed on the server you are upgrading, a dialog box is displayed:
> WCM-only installs are no longer supported. Would you like to convert this to a full application server installation?
> -Click **Yes**. The installer will continue to perform a complete install.
> -Click **No** if you do not want to install a full installation. The installer will exit.

11. The **Current settings** page is displayed. Click **Next**.
12. The **iMIS Database Upgrader** begins automatically upgrading your database, and it closes on completion.

> **Note:** After you click **Next**, there is a pause before the upgrade process begins. This is normal functionality.

13. The **InstallShield Wizard Complete** window is displayed. Review all messages that are displayed on the completion page.
14. Click **The database upgrade succeeded. Select to view upgrade log details**.

15. Click **Finish**. The **iMIS Database Upgrader** log is displayed. Review the upgrade logs to confirm database upgrade success and any additional post-upgrade needs. Scan the most recent **IMISDBUpgrade.log** file for the following error message, which indicates a failed database upgrade:

    ```
    *** UPGRADE PROCESS ENDED WITH ERRORS !!! ***
    ```

    If you find this error message, your database was not successfully upgraded. You must fix the data and upgrade again:

    a. To locate the problem, identify which upgrade script failed. Scroll up through the log until you find the header stamp that immediately precedes the error message. Header stamps look like the following:

    ```
    = iMIS x.x.x.x to iMIS x.x.x.x Database Upgrade Driver Script =
    ```

    b. Fix the data in the current version of the database. The process will upgrade from where it stopped.
    c. Restart the upgrade. In **iMIS Database Upgrader**, click **Begin Upgrade**.
16. Manually recreate any full-text indexes that you dropped. See Prepare all servers and workstations.
17. If the local protected path of the Asi.Scheduler was changed, edit the web.config file on the iMIS server and change the value for **IndexPath** to **..\<*new_path*>\Search\Lucene**. The new value for **IndexPath** must have **\Search\Lucene** appended. The newly created path should be at or below the webroot of your iMIS install. A relative path should also be used for the IndexPath key in the **C:\Program Files (x86)\ASI\iMIS\Net\web.config** file.

    > **Note:** Editing the web.config file is only necessary if the local protected path of Asi.Scheduler was modified.

18. Reboot the server to ensure that logon handling is properly initialized. Failure to initialize might result in user passwords being openly displayed (unmasked) during logon.
19. You must republish all content folders to regenerate a searchable index for content records. To regenerate a searchable index without affecting publish dates, do the following using the Staff site.

> **Note:** The Shared Folders content folder will appear empty until you republish this folder.

> **Note:** When creating a copy of a sample website, the copied website's content will not be included in search results until the content has been published and the Default Website (for search) has been selected for the copied website's content folder.

a. Go to **RiSE > Page Builder > Manage content**.
b. Select all content folders, or select the root (**@**) content folder.
c. Click **Publish**.
d. Select the **Publish Working Items, Regenerate Published Items** radio button.
e. Click **OK**.

> **Note:** If you are using a standard **Communities** layout, you must update the default layout for each community to point to the iCore folder.

20. Check the Settings for any new fields and configure as desired.
21. If you are using a standard Communities layout, you must reselect a layout for each community that points to the iCore folder:

a. Go to **Community > Moderate communities**.
b. Edit an existing community definition.
c. Click **select** for the **Community Layout** field to select the desired layout.
d. Save the definition.

Failure to reselect a standard layout might result in the Community's content being displayed outside of your website's frame.

Alternatively, do the following to make sure the Display within the template checkbox is enabled:

a. Go to **RiSE > Page Builder > Manage content**.
b. Select your community layout.
c. Click **Edit**.

d. Select the **Properties** tab.
e. Check **Display within the template**.

22. If your website uses an out-of-the-box master page, including **Forest.master**, **Sapling.master**, **Planets.master**, and **Cities.master**, you might notice that the copyright statement disappeared after upgrade.
    To resolve this, you must copy the sample **Footer Copyright** content record into your website's **ContentAreas** folder.

    Once this has been completed and published, you will see the copyright statement at the bottom of your website. This will give you the ability to make changes to the copyright statement using the Edit tool.

### Upgrading a second instance of iMIS

> **Note:** Where you see local paths specified, be sure to use the path appropriate for your system, such as **C:\Program Files (x86)** or **C:\Program Files**.

> **Note:** The following procedure uses the specific name **ASI_2** to represent the root folder of your second instance of iMIS. Substitute the actual name of the root folder of your second instance.

1. Delete all of the files from the **ASI_2** folder structure that comprises your second instance of iMIS.
2. Apply the update release to your original instance of iMIS first, following the instructions in the update release notes.
3. Copy the contents of your updated **ASI** folder structure from your original instance and modify the access control lists:

a. Copy the entire contents of the **ASI** folder (your original instance of iMIS) and all of its sub-folders into the **ASI_2** folder.
b. Modify the access control lists for the new folder by running the following from a command line against that folder:

```
ICACLS "Program Files (x86)\ASI_2" /t /grant Users:F
ICACLS "Program Files (x86)\ASI_2\iMIS\Net" /t /grant "Network Service":F
```

4. Run iMIS DB Upgrader on the database used by the second instance:

a. Locate and run the **DBUpgrader.exe** utility that is located in the **ASI_2** folder structure (**C:\Program Files (x86)\ASI_2\iMIS\net\iMISDBUpgrade**).

> **Warning!**
>
> Caution: Do not launch **iMIS DB Upgrader** from the Start menu. That shortcut launches the utility associated with your original instance of iMIS.

b. Specify the location of the iMIS database used for the second instance of iMIS and the password for the iMIS SQL Server login on that SQL Server instance. Click **Begin Upgrade**.

c. The message **Upgrade Completed** is displayed at the bottom of the window when the upgrade completes. Click **Exit Upgrade**.

5. Run the Multi-Instance Utility, **AsiMultiInstanceUtility.exe**, specifying the path, virtual directory, and so forth for the second instance in the same way as for a new second instance.

6. Disable **Configure Services (uncheck for patches)**. This leaves existing services in place for the second instance.

7. Click **Reconfigure iMIS site**. The utility displays status information as it performs the following:

- Updates .config files
- Updates the **SystemConfig** table in the database
- Creates an ODBC DSN entry for the new database instance

The message **Configuration Successful** appears when the utility completes its tasks.

8. Test the upgraded second instance:

a. Log on to Advanced Accounting Console as MANAGER.

b. Go to **System Admin > iMIS management > System Summary**.

c. Ensure that the database, web server, and SMTP server information are correct for this second instance of iMIS.

d. Use a browser to test the other views of iMIS for this second instance.

## Completing post-upgrade tasks

Perform the post-upgrade tasks that follow, and upgrade your existing sites and content items as needed.

> **Note:** You must install **hotfix (A)** after completing an initial install of 20.2, or an upgrade to 20.2. You can access this hotfix by going to ftp://ftp.advsol.com/download/Restricted/Hotfixes/20_2_1_GA/20.2.1(A)_SMR340168_and_SMR342275.zip. Contact ASI Technical Support for further assistance.

> **Note:**
> *Upgrading for VAT:* iMIS now stores all order and order line amounts as VAT-inclusive. DB Upgrader takes care of updating all of your existing order data to be consistent with your new order data. Flags on the record ensure that the update occurs only once, and your original data is backed up (`Orders_BAK` and `Order_Lines_BAK`). This universal change to storing order amounts as VAT-inclusive is unrelated to whether you set AR/Cash VAT Options to be VAT Exclusive. See Configuring VAT accounting options.

### Upgrading the On Behalf Of role

Security is added to the **On Behalf Of** role to allow only **Full** users to be assigned to this role. After upgrade, all **Casual** or **Public** users who were previously assigned to the **On Behalf Of** role are removed from this role. To add this role back to contacts, change the contact to a **Full** user.

### Upgrading Content Items

Version 15.2 optimized and improved the APIs that support content items. Therefore, you must modify any content items you developed for Version 15.1 to have those content items work with these API changes. Do the following:

1. In your content item project, remove references to **Asi.Web.iParts.Common.Utilities** and **Asi.Web.iParts.Common.WebControls**. Version 15.2 deprecated these assemblies and moved their functionality.

2. In your content item code, remove any using statements that reference the namespaces from Step 1.
3. If you are using the **TitleBar** control, make sure your project references the **Asi.Web** assembly. In your web controls and pages, update the **TitleBar** control to reference the new assembly and namespace:

- Assembly change: **Asi.Web.iParts.Common.WebControls** becomes **Asi.Web**
- Namespace change: **Asi.Web.iParts.Common.WebControls** becomes **Asi.Web.UI.WebControls**

For example, the line:

```
<%@ Register TagPrefix="ipartCommon" Assembly-
y="Asi.Web.iParts.Common.WebControls
    Namespace="Asi.Web.iParts.Common.WebControls" %>
```

becomes:

```
<%@ Register TagPrefix="ipartCommon" Assembly="Asi.Web"
    Namespace="Asi.Web.UI.WebControls" %>
```

4. Replace the use of A**ppContext.CurrentIdentity.ContactMaster** with **SecurityHelper.LoggedInImisId**.

> **Note:** When you only need to check for a logged in user, use **SecurityHelper.IsAuthenticatedUser**.

5. Version 15.2 deprecated **Asi.Web.iParts.Common.Utilities.Helper** class and moved its methods to **Asi.Security.Utility.SecurityHelper** and **Asi.Utilities.PartHelper**. Modify any uses of the **Helper** class as shown in the following.

> **Note:** When using the new classes, you must either fully qualify the class namespace or add the appropriate **using** statement to your code.

- Methods moved:
- **Helper.CheckDisplayAsEmpty > PartHelper.CheckDisplayAsEmpty**
- **Helper.FindControls > PartHelper.FindControls**

- **Helper.FindControlsRecursive > PartHelper.FindControlsRecursive**
- **Helper.GetSelectedImisId > SecurityHelper.GetSelectedImisId**
- **Helper.LoggedInImisId > SecurityHelper.LoggedInImisId**
- Methods no longer supported, so refactor:
- **Helper.GetSelectedImisIdWithException**
  When used to check for an authenticated user, replace with **SecurityHelper.IsAuthenticatedUser**.
- **Helper.ImisConnection**
  When used to check for an authenticated user, replace with **SecurityHelper.IsAuthenticatedUser**. When used to retrieve a **CContactUser** object, use **iBO.ContactManagement.CContactUser.LoginByWebLogin(AppPrincipal.CurrentIdentity.LoginName)**.

  > **Note:** It is recommended to use the SOA data access library in place of the iBO library when possible.

- **Helper.SetCurrentContactKey**
- **Helper.SetSelectedImisId**

**Upgrading an iMIS 15.2.7-and-higher website with Cities, Forest, Mountains or Planets master pages**

If you are upgrading from iMIS 15.2.7-and-higher to the current iMIS release, and your website uses the Cities, Forest, Mountains or Planets master pages, you must add a **Create Account** navigation item to your sitemap. You can copy from one of the quick start sites. Do the following:

1. Go to **RiSE > Site Builder > Manage sitemaps**.
2. Select **Member** in the drop down list.
3. Select the **Create Account** navigation item.
4. Select **Organize > Copy**.
5. In the drop down list, select your website.
6. Select the root (~) navigation item
7. Select **Organize > Paste**.

8. Place this navigation item where you want it to appear.
9. Select **Publish**.

**Upgrading system alerts**

When you upgrade to a new version of iMIS, several system alert tasks are enabled and set up to display to website users by default. After an upgrade, you should review the system alerts tasks to confirm that you do want these alerts to display to users. The review process will differ depending on whether or not you are licensed for advanced tasks.

If you have the advanced tasks license:
You should review the system alerts tasks to confirm that they are configured appropriately for your organization. If you do not want a system alert task to generate an alert that displays to users, you need to disable the task.

1. In the Staff site, go to **RiSE > Process automation**.
2. Select the **Tasks** tab.
3. Open and review the alert tasks.

a. If you do not want to use a system task, deselect **Enabled**.
b. Confirm that the task uses an appropriate **Conditions** data source. The task only runs when the data source returns records.
c. Confirm that the **Alert** is configured appropriately.

4. Review the query data sources used as conditions in the enabled tasks. Data sources are located at **$/Common/Tasks/Queries** in the Document System. If you want to modify a query data source:

a. Copy the query.
b. Modify your version of the query.
c. Update the task to use the new **Conditions** data source.

5. Go to **RiSE > Process automation**.
6. Select the **Alert sets** tab and confirm that the alert tasks are located in the appropriate alert set.

If you do not have the advanced tasks license:
You cannot edit the out-of-the-box alert tasks, but you can control whether or not they display on your website by including or removing them from the system alert sets. If an alert task is not included in an alert set, it does not display.

1. In the Staff site, go to **RiSE > Process automation**.
2. Select the **Alert sets** tab.
3. Open the alert set you want to edit.
4. To add an out-of-the-box alert task to the set:
a. Select **Add New**.
b. Select the alert task you want to include from the **Task** drop-down.
c. Save the task.
d. Use the arrows to arrange the alert tasks in the desired order.
5. To remove an out-of-the-box alert task from the set:
a. Select the alert set.
b. Choose **Delete selected**.
c. Click **OK** to confirm the deletion.
6. Save the alert set.

See Displaying automated alerts for more information.

**Redirecting to the virtual directory URL**

iMIS no longer supports installs to the default website. If you previously installed to the default website, you will need to use the URL Rewrite module to redirect the URL of your default website to the URL of the virtual directory.

For example, an organization that had previously installed iMIS to the **http://golive.advsol.com/** default website has uprgraded and now installs to an **/ASI/** virtual directory. The organization wants users who try to access **http://golive.advsol.com/** to be redirected to **http://golive.advsol.com/ASI/**.

> **Note:** You can only use the **URL Rewrite** module to redirect the URL of the default website to the URL of the virtual directory when the default website and virtual directory use the same application pool.

Redirecting to the virtual directory URL using URL Rewrite

Do the following to redirect the URL of your website to the URL of the virtual directory using **URL Rewrite**:

1. Go to **IIS Manager > Sites >Default Web Site**. The **URL Rewrite** module will be visible in the **IIS** group.
2. Double-click **URL Rewrite**.
3. In the **Actions** pane, select **Add Rule**.
4. Select **Blank Rule** and click **OK**.
5. Specify a **Name** for the rule.
6. In the **Match URL** area, do the following:

a. Select **Matches the Pattern** for the **Requested URL**.
b. In the **Using** drop-down list, select **Regular Expressions**.
c. Enter **.*** for the **Pattern**.
d. Select the **Ignore Case** checkbox.

7. Expand **Conditions**. In the **Conditions** area, do the following:

a. Click **Add….**
b. Enter the following for the first condition:

- Enter **{HTTP_HOST}** as the **Input**.
- In the **Check if input string** drop-down list, select **Matches the Pattern**.
- Enter `^FQDN$` as the **Pattern**. (For example, `^golive.advsol.com`.)
- Click **OK**.

c. Click **Add….**
d. Enter the following for the second condition:

- Enter **{PATH_INFO}** as the **Input**.
- In the **Check if input string** drop-down list, select **Does Not Match the Pattern**.
- Enter `/*VirtualDirectoryName*/` as the **Pattern**.
- Click **OK**.

8. In the **Action** area, do the following:

a. Select **Rewrite** as the **Action type**.
b. Enter `/VirtualDirectoryName/{R:0}` as the **Rewrite URL**.
c. Select the **Append query string** checkbox.
d. Select the **Stop processing of subsequent rules** checkbox.

9. In the **Actions** pane, click **Apply**.

Setting up an iMIS site at the root of an IIS web site

Do the following to set up an iMIS site at the root of an IIS web site:

1. Launch **IIS Manager**.
2. In the left navigation, right-click **Sites** and select **Add Web Site**.
3. Enter the following information:
a. Site name: **www.*domainname*.com**
b. Physical path: The default path is **C:\Program Files (x86)\ASI\iMIS\Net**. Change this path to reflect your new iMIS path (for example, **C:\Program Files (x86)\ASI*domain-name*\Net**).
c. Binding: Change the IP address to the address assigned to this site.
d. Host name: **www. *domainname*.com**
4. Add an SSL site binding. Select the site, then click **Bindings** and then **Add**.
5. Enter the following information:
a. Type: **HTTPS**
b. IP address: The IP address of the site.
c. Port: **443**
d. SSL Certificate: Select the certificate for **www.*domainname*.com**.

> **Note:** A new DNS record will need to be added to your DNS Server to associate the new **www.*domainname*.com** with the external IP address.

6. To test the new **www.*domainname*.com**, add a host file:
a. Open the **C:\Windows\System32\drivers\etc\hosts** file in a text editor application.
b. Add the following line to the end of the hosts file:

```
[IP address of the site]    www.fullurl.com
```

7. You must update the URLs for your RiSE websites to reflect the new URL:
a. In the Staff site, go to **RiSE > Site Builder > Manage websites**, and select your website.
b. Change the following fields:

- **URL(s) pointing to the IIS website root** – http://www.*domainname*.com
- **Secure URL(s) pointing to the IIS website root** – https://www.*domainname*.com

**Testing access to installed components**

Do the following tests as appropriate for your system.

The password for the **MANAGER** account is **manager** or **MANAGER** as required by the case sensitivity of your SQL Server instance (new installations), or else it is the **MANAGER** password for your existing iMIS database (upgrades).

> **Warning!**
>
> Be sure to change the default **MANAGER** password before going live. In Advanced Accounting Console, go to **System Setup > Security administration > Users**, find **MANAGER** with a query on **Users**, and edit the **User Credentials**.

1. Test the administrative view:
   - On the iMIS server, choose **Start > All Programs > ASI > iMIS > iMIS Desktop**.
   - Test that you can log on as **MANAGER**.
   - Verify that the iMIS Home page is displayed, indicating that the connections are working.

     **Note:** Allow several minutes for the **Home** page to open for initial logons after installing or restarting.
2. Test the staff view:
   - On the iMIS server, browse to your staff view, such as **http://<*iMIS server*>/iMIS/staff**.
   - Verify that the iMIS **Home** page is displayed, indicating that the connections are working.
   - Test that you can log on as **MANAGER**.
3. (optional) Test the public view, if installed:
   - On the iMIS server, browse to your public view, such as **http://<iMIS server>/imispublic**.
   - Verify that the public welcome page is displayed, indicating that the connections are working.
   - Test that you can log on as **MANAGER**.

## Upgrading existing websites

An upgrade might affect website content, content items, and structures. Be aware that any existing site that you upgrade might need adjustments due to the impact from these changes.

### Website upgrade strategy

Every release of iMIS includes changes to themes to accommodate new functionality and designs. Changes are often made to CSS, skin, image and master page files. While you might have made minimal changes to your iMIS look and feel, you might have made extensive changes to tailor the design for your organization. Regardless of your situation, the steps for upgrading your iMIS-themed website are the same.

> **Note:** Extensive changes have been made to various master pages. If you have customized an iMIS master page, you might need to copy those customized changes to the updated master page after you perform an upgrade.

Do the following to avoid possible layout problems or missing images.

> **Note:** Back up your current theme and master page before you upgrade, so that you do not lose changes.

- After you upgrade:
- Compare your theme and master page to the upgraded out-of-the-box theme or master page on which your theme and master page are based. For the CSS, skin and master page files, use a merge tool to merge the new theme files into yours, making sure that you do not overwrite any of your customizations. If you made no changes, as is often the case with skin files, overwrite your version of the file with the updated version.
- For the image files, copy any new images to the **images** and **Menu** folders. There might be conflicts between your changes and the iMIS updates, which you must resolve on a case-by-case basis for your design.
- Test the changes. Click through your website to review the theme updates. You might need to adjust new styles or images for your design.

Custom Layouts

The grid system in iMIS has been enhanced to include the Bootstrap grid system. This new system provides more powerful and flexible grid options including up to 12 columns per row and simple nesting. All out-of-the-box layouts and content have been updated to use the new grids. If you have custom layouts and want to take advantage of the new grid system, follow the steps in this section to update your layouts.

Update existing layouts to use the new grid system

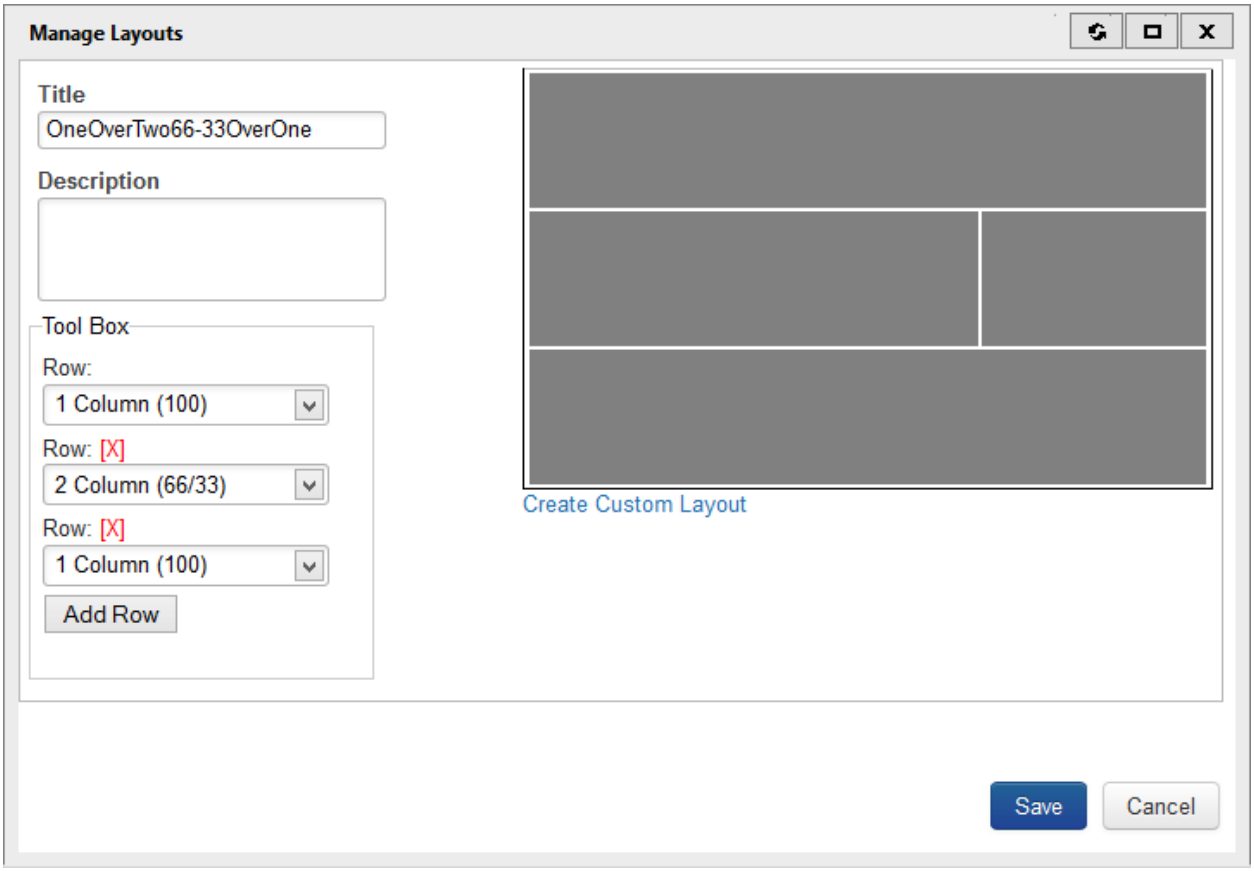
Do the following to update existing layouts to use the new grid system:

1. Go to **RiSE > Page Builder > Manage layouts**.
2. Open each of your custom layouts for editing. The way in which you update your layouts to use the new grids depends on if the layout was built using the Grid Builder, or if it was hand-coded.

- Grid Builder layout example:

  If the layout was built using the Grid Builder you only need to click **Save** and close the window. This automatically converts the grid to use the new Bootstrap classes.

  Click to view image

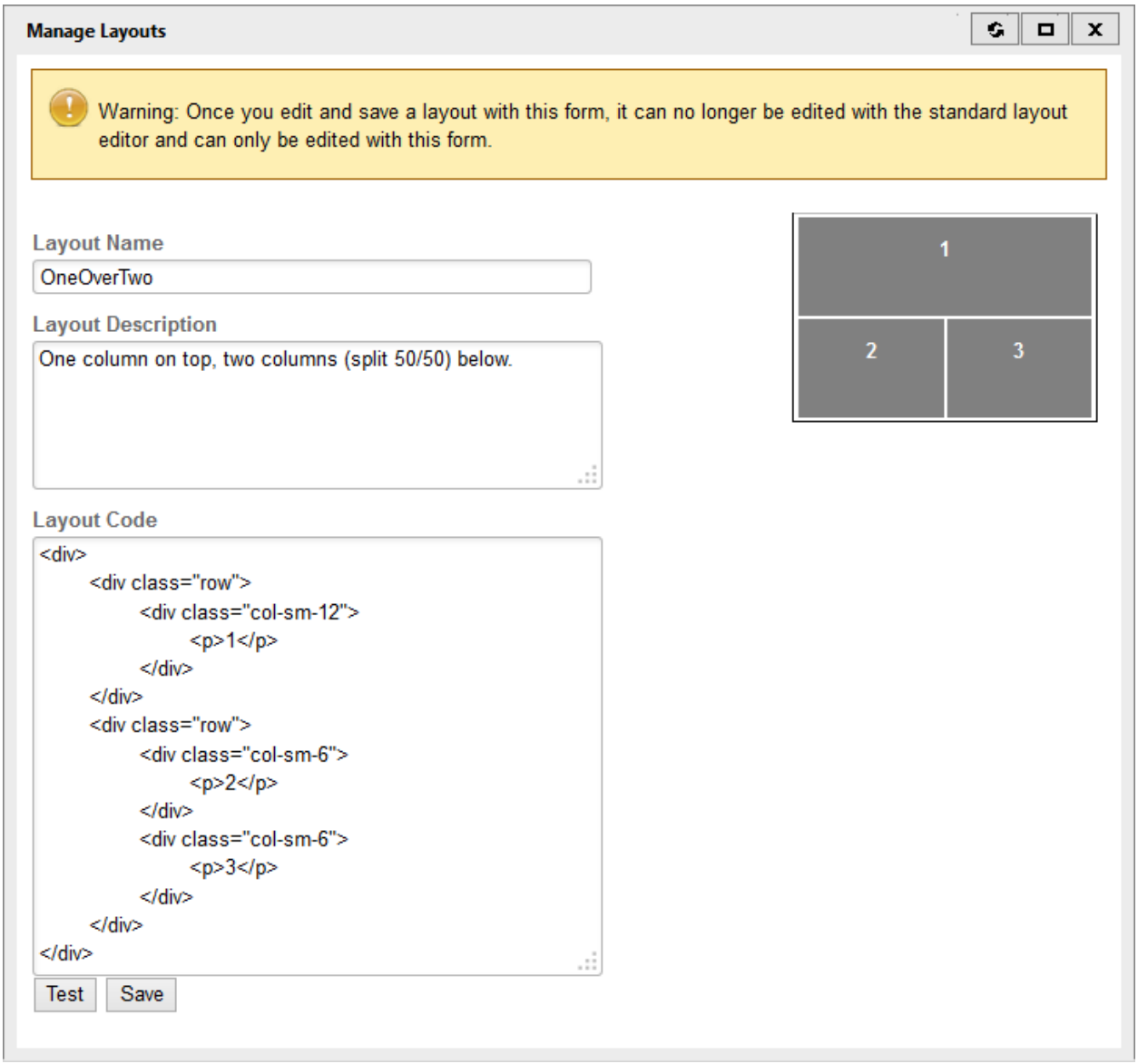



- Hand-coded layout example:

  If the layout was hand-coded, you will need to convert the layout by hand. For help with creating your own grids, see the iMIS topic about the Bootstrap Grid system

documentation. Once you have updated the layout to use the new classes, save and close the window.

Click to view image




3. After all of the layouts have been updated, you need to re-publish all of your content, so that the web pages are re-generated using the new layouts. Go to **RiSE > Page Builder > Manage content**.

a. Select the content you need to publish (you can even select the root or folder that contains the content), then click **Publish**.

b. In the publish pop-up, select the option labeled **Publish Working Items, Regenerate Published Items**.

Box model changes

The CSS box model used in iMIS is standardized. The box-sizing CSS property is used to correctly calculate the widths and heights of elements. To do this, the following declaration has been added to **reset-fonts-grids.css**:

```
*,
*:before,
*:after {
    -webkit-box-sizing: border-box;
    -moz-box-sizing: border-box;
    box-sizing: border-box;
}
```

**Note:** For more information about box-sizing, see this article by Paul Irish.

This change may have implications on your site design if you have a highly customized theme. After upgrade, be sure to review the pages of your site and keep an eye out for any layout problems related to padding and borders. You may need to adjust your styles to increase or decrease these values.

For example, if you have any styles that define the width and padding of an element, you will likely need to adjust the width of the element. Consider the following declaration:

```
.MyClass {
    width: 15px;
    padding-right: 10px;
    padding-left: 10px;
}
```

Before the box-model change, the width of this element would have been 35px, because adding padding used to also increase the width of the element. However, after the box-

model change, this is no longer the case. The width defined for an element is the final width - it does not change when you add padding. To solve this, change the width of any element to reflect the actual width you want:

```
.MyClass {
    width: 35px;
    padding-right: 10px;
    padding-left: 10px;
}
```

UltraWave

We have made several improvements to the base UltraWave styles, including combining the various style sheets into a single resource and dynamically including them on each page using a **<link>** in the page head, rather than **@import** in CSS.

Do the following to take advantage of these improvements:

1. In your theme's style sheets you might find a block of code that looks like the following:

```
/*########################################*/
/*    Import UltraWave StyleSheets    */
/*########################################*/
@import url("../UltraWave/00-Reset.css");
@import url"../UltraWave/10-UltraWave.css");
@import url(“../UltraWave/11-ObjectBrowser.css”);
```

Remove these lines from your theme.

> **Note:** If you have 00-Reset.css, 10-UltraWave.css, or 11-ObjectBrowser.css directly included in your theme, it's a good idea to remove them to avoid style conflicts.

2. Add a new ThemeSettings.xml file to your theme, as outlined in Creating a custom theme. This will ensure that UltraWave is loaded in your site.

**Updating sites that have page errors**

Some content items were renamed or removed from the **Content Gallery**. This affects all content records on which you placed these content items. Be sure to review your site so that you can discover and address any page errors arising from upgrades to content and content items. Do the following:

1. Navigate through your upgraded iMIS content management site and note any pages that show errors.
2. Go to **RiSE > Page Builder > Manage content**.
3. Delete the problematic content records.
4. Recreate the content record using the renamed content item or another content item, as appropriate.
5. Go to **RiSE > Site Builder > Manage sitemaps**.
6. Select your site.
7. **Edit** the affected navigation item to point to the new content record.
8. Click **Save**.
9. Click **Publish**.
10. Click **OK**.

**Upgrading older sites**

Updating 1700 sites

WCM sites using the 1700 template do not import the UltraWave theme files like other RiSE sites. After you upgrade, manually copy **00-Reset.css**, **10-UltraWave.css**, and **11-ObjectBrowser.css** from **C:\Program Files\ASI\iMIS\Net\App_Themes\UltraWave** to your 1700 theme folder, overwriting the existing files.

Updating 1600 sites created in 15.1.2

WCM sites based on the 1600 template now use the text resizing accessibility feature available in Internet Explorer 7 and later. To update an existing site, you can modify the CSS files on your web server, as described in Support's April 2010 TechLet.

> **Note:** To ensure you have all the required edits, create a new 1600 template site and compare the content of these five files to your existing 1600 template site.

Upgrading 15.1.1 WCM sites

If you have an existing WCM site on a 15.1 installation, you must modify your **01-iMIS.skin** file to gain access to the latest web controls. Otherwise, you will see a parser error that the system cannot load **RadGrid.Net2** and additional web controls.

1. With a text editor, open **C:\Program Files\ASI\iMIS\net\App_Themes\WCMSiteName\01-iMIS.skin**.
2. In the **Register** elements at the top of the file, replace the five lines shown below under 15.1.1 with the one line shown under 15.1.2 and later versions.
   **15.1.1:**

```
<%@ Register Assembly="RadGrid.Net2" Namespace="Telerik.WebControls" TagPrefix="radG" %>
<%@ Register Assembly="RadSplitter.Net2" Namespace="Telerik.WebControls" TagPrefix="radS" %>
<%@ Register Assembly="RadMenu.Net2" Namespace="Telerik.WebControls" TagPrefix="radM" %>
<%@ Register Assembly="RadUpload.Net2" Namespace="Telerik.WebControls" TagPrefix="radU" %>
<%@ Register Assembly="Telerik.Web.UI" Namespace="Telerik.Web.UI" TagPrefix="rad" %>
```

   **15.1.2 and later versions:**

```
<%@ Register Assembly="Telerik.Web.UI" Namespace="Telerik.Web.UI" TagPrefix="telerik" %>
```

3. Save the **01-iMIS.skin** file.

Log Console
Skip To Main Content

Account
Settings
Logout
All Files

iMIS

- All Files

  Submit Search

  Home
- Contents

- Search Filters
- All Files

Account

Settings

Logout

of

# Your search for  returned  result (s).

PreviousNext

Create Profile

Username *

Email Address *

Email Notifications

I want to receive an email when...

a reply is left to one of my comments

a comment is left on a topic that I commented on

a comment is left on any topic in the Help system

SubmitCancel

An email has been sent to verify your new profile.Please fill out all required fields before submitting your information.

Filter: