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*iMIS Documentation*

# ***iMIS 15 Release Kit***

***By Advanced Solutions International***



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Updates may be made to this and incorporated into later editions.

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# New Features

Advanced Solutions International, Inc. is proud to announce this update to *iMIS* 15.2.

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## Enhancements in 15.2.14

This update includes enhancements throughout *iMIS*, which are summarized in this section. This update requires 15.1.3 or higher. Note that e-CM, e-Series, and iBO for COM are unsupported products and that functionality related to the retired Template Gallery is removed from the interface.

### Look and feel improvements

New website theme: Austin

A new theme for *iMIS* websites features an open and clean look and feel with bold accent colors. The master page is called **Cities** and the theme is called **Austin**.

Action links added to the Sample Sites' account pages

The **Sample Sites'** account pages now include buttons that make it easy for staff to quickly run reports and perform actions on behalf of the selected user.

Social Share - icon sizing, text label

Two configuration options have been added to the Social Share iPart: an option to choose the size of the icons (Small, Medium, or Large) and an option to specify a text label.

Updates to the Community iParts

The Community iParts have been updated to improve the styling, including changes to title formatting, image displays, and content spacing. In addition, names displayed in the Subscriber List iPart are now linked to the contact's profile.

Common Search - Details link for long descriptions

Long descriptions in the search results are now truncated and a **Details** link is displayed, which opens the search result to view the complete description.

Event Program Display - display improvements

When displaying an event that has no functions, the Event Program Display iPart automatically hides itself, provided that the user does not have permission to add functions. A new configuration option has also been added to select the **Only display program items in registrant's itinerary** option by default, so that only the registrant's itinerary is displayed when the iPart is first loaded.

Improved auto-completion of company names when adding/searching

To improve how users experience the dynamic auto-completion of the company name that they enter, the control for searching and adding companies delays autocompleting until the user has entered at least 3 characters. This delay prevents excessive flashing and redrawing of the filtered company matches. This improvement now appears on the Contact Account Creator, Contact Name, and Contact Mini Profile iParts.

Performing routine tasks for contacts using the Big Button Panel

As part of our work to replace the Customer Portfolio in Desktop, you can now use the Big Button Panel iPart 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.

Immediate selection of newly created contact

When you add a new contact, either when using **On Behalf Of** or when using the **Register Someone Else** option in events, *iMIS* now selects the new contact immediately. This automatic selection means that you do not have to find the new record to continue your task.

## Security and maintenance

New security sets for staff-only access

New preconfigured security access sets let you easily restrict folders, objects, and content for use by *staff users only*. You can grant access to all of your staff, or you can also grant it to a specific **User Class**: Full or Casual. These new security sets are available throughout *iMIS*, whenever you see the option to configure **Access Settings**.

Database sa password no longer required

You can now install and run *iMIS* without having to give your database's **sa** (System Administrator) user password to anyone. You can specify a non-sa sysadmin account for installation and a regular login for *iMIS* to run under. The installer uses the specified system administrator account to do tasks such as attaching the database, but it does not persist this account's information anywhere. After installation completes, you may delete the sysadmin account if you supplied a separate login for *iMIS* to run under, with db\_owner permissions on the *iMIS* database.

Upgrade preserves web.config settings

Upgrades from version 15.2.13 and later now update your existing **web.config** file directly. Rather than overwriting the file, the upgrader makes its changes in-place, preserving your database connection strings and indexing search service while it adds any new config file entries needed. The upgrader also creates a **webref.config** reference file in the same directory, which shows the configuration for a new installation to help you to debug any issues you encounter with your merged file.

Database Maintenance utility replaces DB Repair

With this release, the "DB Repair" tool is now the *iMIS* Database Maintenance utility. This name change both reflects and supports the tool's expanding role in helping you to manage your *iMIS* database. All *iMIS* utilities are available in your ASI program group.

Images upload to same system-defined path

Toward the goal of making it easier for you to organize your site images where they cannot be overwritten, *iMIS* now uses one system-defined path for all of the image files that you upload. You can change this path, which is defined as the **CM.ImagePath** in your **SystemConfig** table. This setting is honored by the Image Manager (**Content Management > Manage images**) and by all iParts that reference uploaded images, such as Contact Profile Picture Display (exception: Content Block Editor stores images in the database). Theme-related images are still managed within appropriate theme folders.

Change History Display - logging specific objects and tables

The Change History Display iPart can now display data changes made to specific dynamic business objects in the Panel Editor in which the log all changes option is enabled.

## Performance and platforms

Business objects no longer compile, for improved performance

To improve performance and scalability, *iMIS* has been redesigned to no longer require any compiling of business objects. Instead of publishing code to be compiled into assemblies, Business Object Designer now publishes serialized metadata for use by the *iMIS* runtime.

Performance gains for creating Contact accounts with user credentials

Performance was analyzed and improved so that you get faster response times when you create batches of new Contact user accounts with associated credentials, such as logons and passwords.

Compliance 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. Setup for this feature is required. See "Complying with the EU's Electronic Privacy Directive".

SQL Server 2012 supported by iMIS and Analytics

*iMIS* now supports Microsoft SQL Server and Express Edition 2012, in addition to SQL Server and Express Edition 2008 SP3 and 2008 R2 SP1 (32-bit and 64-bit), and SQL Server and Express Edition 2005 SP4. *iMIS* Analytics now works with SQL Server 2012 as well, in addition to the earlier versions stated.

UK address verification

*iMIS* now supports UK address verification in the Contact Account Creator and Contact Address Editor iParts.

## Panels and data

New Data Showcase iPart merges iMIS data into HTML design

The Content HTML iPart lets you leverage HTML to create compelling designs; the new Data Showcase iPart lets you combine this power with variables that merge in your *iMIS* data, dynamically and reusably. When you specify data sources, such as **Event** and **Party**, you can then use variables in your HTML that will insert values from these data sources (such as venue details), styled for your needs. You can use **foreach** structures to display groups of values (such as all functions), and you can have the iPart hide itself if it detects any data errors.

Panel Editor - displays larger UD text columns as multi-line text areas

The Panel Editor can access user-defined (UD) tables that you created in iMIS Customizer, which can include text columns of various lengths. Now the Panel Designer detects when a text column is defined to be more than 32 characters so that it can display it more usefully: it displays the string as a multi-line text area instead of a single-line textbox. This improved display makes it easier for users to view and edit these long strings in your panels.



Panel Editor - option to log specific properties

The Panel Designer in the Panel Editor iPart now includes a checkbox option to enable logging of changes to the property of your dynamic business object.

Panel Editor - support for URL and email links

URLs and email addresses entered as plain text in the Panel Editor are now automatically turned into clickable links.

CsActivityBasic business object for non-fundraising history

The new **CsActivityBasic** business object is a streamlined version of **CsActivity**; it simplifies working with historical activity records that are not related to fundraising. You can continue to use **CsActivity** if you need to include donation activity, because it includes several value lists that are specific to fundraising.

## Group List Editor

The Group List Editor iPart is the focus of several improvements.

Links to the profile page

A new option lets you turn contact names into links that open the contact's profile page. This option makes it easy to jump to the record of contacts listed in the Group List Editor iPart.

Unlimited relationship creation

You can now easily create a link (relationship) between two contacts using the Group List Editor. When you define a relationship, that link shows up on the record of both contacts. You can create any *number* of relationships, and you can create as many *types* of relationships as you need. Several relationship types ship with *iMIS* as suggestions, but you can remove and create them to fit your organization. See "Relationships in the Group List Editor".

Title variables

You can now enter variables in the **Title** of the Group List Editor configuration to display the selected user's information. To use a variable, type curling braces and enter the number for the information you want: {0} for First Name, {1} for Full Name, {2} for Organization.

## iPart enhancements

Contact Account Creator - Set which query selects companies

You can now configure Contact Account Creator iParts to display a list of companies and organizations using queries designed specifically for your organization. Rather than this being a global option, you can have different iPart instances use different queries, such as if you have content records specific to different types of users.

Contact Account Creator, Mini Profile - options to select organization

You can now configure the Contact Account Creator and Contact Mini Profile iParts to allow your users to add or change their organization while they create or update their account. A separate option lets you require them to enter an organization. In all cases, as users enter characters in the field, a list of matching names updates dynamically, and users can select one from the list. If their organization is not found, then the name that they enter in the field is stored in their record.

Contact Mini Profile – company name links to profile

To make it easier to view both individuals and their parent organizations, the Contact Mini Profile iPart now dynamically links the contact's company name to the profile page for that company, if possible. When a matching company ID exists, the company name appears as a link that opens that company record. When no matching company exists, it simply shows the name as text only.

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## Enhancements in 15.2.10

This update includes enhancements throughout *iMIS*, which are summarized in this section. Note that e-CM, e-Series, and iBO for COM are unsupported products.

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**Important:** To apply this update, you must be running version 15.2.0 or higher.

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### Website enhancements

This release brings significant progress towards easier website upgrades.

#### Websites reorganized for ease of upgrade

Many changes are underway to make it easier and safer for your organization to upgrade your websites and content. In this release, we restructured **Manage websites** to organize websites into folders that make clear their usage: **Core Sites** holds essential *iMIS* applications (such as **iMIS Desktop View**); be prepared to recreate any customizations you introduce there. **Sample Sites** holds the growing set of iPart-based sites (**Member**, **Member Mobile**); refer to it for comparison, but make no changes. Manage your own sites outside of these folders so that you can change, copy, and implement, safe from overwriting by upgrades.

#### Core content protected for ease of upgrade

Related to this change, the content folder structure now separates core content and sample website content that ships with *iMIS* from your website-specific content. Core Content is read-only. For more information on all aspects of site upgrades, see *Upgrading Existing Websites*.

#### Saving or copying 'protected' content records

A new **Save As** option has been added when editing 'protected' system content records so that a new copy of the content is created upon saving. This prevents your user modifications from being overwritten during subsequent upgrades.

#### Improved copy website

When you copy a website, you can now rename the website, which also renames the sitemap. A new **Website-specific parent content folder** also allows you to specify the content folder that contains the website content. Copy website will copy the content within parent folder and within the folder containing the template content.

#### Member site redirector page easier to maintain

*iMIS* now has a simplified redirector page for the **Member** sample site to determine which profile pages users have access. The redirector page now uses Shortcuts instead of Navigation Items to resolve which page to display, so that sitemaps are easier for you to maintain.

### Technical enhancements

This release brings significant gains to *iMIS* performance responsiveness and web server stability.

#### Performance improvements

We boosted performance by tuning code to reduce database accesses and by resolving fundamental issues in Business Object Designer that caused type mismatches. Eliminating these mismatches prevents unneeded index scans, which slow down large databases.

#### Business objects streamlined for improved performance

Because the root cause of performance and scalability issues was the code being compiled into business objects, that code has been migrated out of business objects throughout *iMIS*. The **Constraints** and **Actions** tabs as well as the **Properties - Constraints** tab, which store such code, are now removed from Business Object Designer.

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*Important:* 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.

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#### **Web server stabilization**

We brought greater stability to *iMIS* web servers by finding and resolving several problematic memory leaks in the web application pool. The most noticeable impact of this stabilization is that it removes much of the need for frequently recycling the IIS app pool.

#### **Updated Telerik RadControls and JQuery**

*iMIS* has been updated to use the latest version of the Telerik RadControls and JQuery, so that we can take advantage of the latest technologies.

## **VAT enhancements**

This release lets you configure *iMIS* (through your AR/Cash setup) to use system-wide pricing that is either VAT-inclusive or VAT-exclusive and to use system-wide substitution codes, to help you document reasons for tax exemptions. After reviewing the new VAT changes here, see [Configuring VAT options in AR/Cash](#).

#### **System-wide VAT setup window**

To help you manage your system-wide VAT options, **Desktop > AR/Cash > Set up module** has a new, dedicated **VAT Options** window, which only appears for VAT-enabled organizations.

#### **VAT Inclusive pricing**

You can now configure *iMIS* to treat defined product and event prices as VAT Inclusive, so that you can publicize stable, round gross pricing to your members and customers. The new **VAT Options** window lets you override the default method (*VAT Exclusive*) to the new method (*VAT Inclusive*). Regardless of which tax method you choose, your website customers see the same interface and breakout of VAT; the difference is in whether you enter gross prices for your products (already including the tax). That is, if you enable VAT Inclusive, you enter the price of a \$100 item as being \$120, if it incurs a VAT rate of 20%. Regardless of this setting, your website always shows product pricing and shipping/handling charges as VAT Inclusive for both events and orders, to comply with sales tax rules. These VAT calculations respect any freight or handling charges that you enter manually.

#### **VAT Exclusive pricing**

Because some organizations need to handle order and registration prices as VAT-exclusive (such as for B2B sales), *iMIS* allows you to retain VAT Exclusive pricing in the **VAT Options** window. With this option, 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. Even though VAT-exclusive pricing appears the same as before, all order and registration pricing is now saved as VAT-inclusive. That is, the VAT Exclusive setting just controls how you see and enter the data, converting your net amounts to and from the underlying VAT-inclusive amounts dynamically. The Product Details window, which shows additional properties of an order line, has been enhanced to help you see and adjust these amounts.

#### **Substitution codes for tax exemptions**

The **VAT Options** window offers three fields to help you document VAT exemptions; you can select from your existing zero-based VAT tax codes to specify ones to globally substitute as "reason" codes for each of three situations: the contact is VAT Exempt, is Registered in a different EU country, or is outside of the EU altogether. In Events, your VAT Rules also let you select a **Substitute Tax Code** for any rule that prevents taxation.

#### **Automatic conversion from VAT Exclusive pricing**

To help you convert quickly to VAT Inclusive pricing, the DB Repair standalone utility has a new **VAT** tab, whose command 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 **VAT Inclusive** setting for you (on the **AR/Cash > Set up module > VAT Options** window), which is non-reversible.

### **Support for Events, both Desktop and Web**

Registration via Desktop and the web views honors VAT Inclusive pricing. With VAT Inclusive enabled, events dynamically update gross (inclusive) prices to reflect changes in taxability, such as when you override the default Country of the attendee. This support honors any VAT Rules that you defined for the event, as well as any overrides you make to VAT tax codes for specific fees.

### **Support for Simple Order Entry**

If you use value-added taxation (VAT), you can now use Simple Order Entry and have the same, improved VAT calculations and display as is available in Order Processing on Desktop. The same VAT rules and behaviors apply across *iMIS*, so that VAT is calculated and presented correctly and consistently.

### **VAT details on order status and event confirmation reports**

To support VAT-inclusive pricing, key reports now include details about the VAT being collected for the order. The *Order Status - Order Detail VAT* 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. Event confirmations report the amount of VAT tax included in the registration fee.

## **Contact enhancements**

### **Adding new contacts**

*iMIS* now makes it easier for you to create new contacts when you need to. You can now quickly add contacts from the On Behalf Of popup. This functionality has been added to the [Group List Editor](#), Community Roster and the Competitor Definition in Process Manager.

### **Allowing members to edit their primary organization**

Members can now add or edit their primary organization, so that they can easily keep this information up-to-date. This functionality has been added to two iParts: Contact Mini Profile and Contact Name.

### **Contact Account Creator – duplicate email checking for logon recovery**

Members who cannot recall their logon to access your site may try to create a new account. The Contact Account Creator now prevents creation of duplicate accounts by helping them to recover their lost records. The Contact Account Creator checks the email address for a match in your database; if it finds one, it guides members through a logon recovery process.

### **Contact Account Creator – choice of redirect options**

The Contact Account Creator iPart now allows you to control what appears immediately after people create accounts in specific situations. You can choose if you want to redirect to a content record or URL, the previous page, or not to redirect after a new account is created.

## **iPart enhancements**

### **Donation Creator – personalized gift arrays**

The Donation Creator iPart has a new option that lets you specify a query to calculate and display an array of suggested gift amounts that are based on the signed-in user's prior giving history. For example, if their last donation was \$50, the gift array shown for them might be 55, 110, 220, 440, and a free text entry field.

### **Event Display – editing registrant information (Badges tab)**

When your registrants select the icon on the Event Display to access their contact details, they see *Display Name*, *Organization Name* and *Title*, and *Selected Address*, which defaults to the preferred mail. These values (mapped to the **Badges** tab in Desktop) are used for the *Event Roster* and *Event Badge* reports for this specific event. Registrants can now edit these details, to add a missing name or title or override an existing one. If the correct address is not available for selection, registrants can add it via their Account page.

### Event Display – undefined pricing hides functions

When you define event functions in Desktop, leaving pricing undefined (\$0 and *not* Complimentary) now hides both program items and registration options on your Event Display, so that your registrants do not see errors. This hiding lets you present different registration choices to different registrant classes. That is, if you keep *Default* pricing blank but add pricing for certain registrant classes (such as *Company Members*), you can offer a registration option that only Company Members can see and select. When the person signed in is a non-Public user, they always see the item along with a message that pricing is undefined, which helps with event management and troubleshooting.

### Social Share – replaces AddThis for link sharing

The new Social Share iPart lets you make it easy for your users to share your page across the web by way of popular social media links. For example, you can add this iPart to a campaign page so that your donors can click and promote the cause to their friends. The Social Share iPart replaces the AddThis iPart.

### Promotion Manager – validates codes and discounts product sales

The Promotion Manager iPart now validates any promotion code entered by your shopper and, when the code is valid, discounts the entire order by the specified percentage by reducing the amount of each order line. The iPart hides itself if no promotions have been defined or if the cart is empty. These promotional discounts are supported for all products except for event registrations and all tax methods except for GSTINC, which are under development.

## Interface enhancements

### Document Browser – filtering folder contents

The Document Browser appears in the Document System and throughout *iMIS*, whenever you need to select objects (queries, business objects, content records, etc.) that are stored in your Document System. Because folders can contain large numbers of objects, a new **Quick Find** filter above the folder contents lets you enter part of an object's name to narrow the list of items. The filter updates dynamically, so you can simply delete characters to return more items.

### Manage Shortcuts usability

The Manage Shortcuts page has been redesigned so that it is more user-friendly.

### Big Button Panel – dynamic filters to links

The Big Button Panel iPart has been updated with new configuration options, so that it is easier to use and has a more standard look and feel. You can now add dynamic filters to links in the Big Button Panel, so that you can easily run reports for the currently selected contact by simply clicking a link.

### Displaying mega drop-downs

You can now 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.

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## Enhancements in 15.2.5

The 15.2.5 update includes improvements and fixes across all of the views of *iMIS*. This section lists enhancements that are now available in this update. This update requires 15.1.3 or higher.

## Website design enhancements

### Tracking your site with Google Analytics

Google Analytics tracks and collects important data on how visitors interact with a website, and the reports on the data it collects helps you to assess whether your site is meeting its goals. Google Analytics collects data by way of a script on each of the tracked pages. A new **Advanced** option in **Manage websites** lets you insert the script needed to track your entire site with Google Analytics.

### Display hierarchical navigation

You can now set your website's navigation to display in a hierarchical format, such as in the left navigation area. Use of this left navigation area is enabled through the site's master page.

Ability to style individual navigation items easily

Two new properties have been added to navigation items, so that you can tailor the look and feel of particular navigation links. With the **Image URL** property, you can select an image to display next to any navigation item. The **CSS class** property allows you to enter one or more CSS classes to apply to the navigation item.

New themes available

The Red Frog Group design demonstrated at iNOVATIONS 2012 is now available as a sample site theme in *iMIS*. To try it out, select the new **Planets** master page, then choose one of the new themes: **Mercury** or **Venus**.

## VAT enhancements

VAT – Taxation method defaults to Ship To

To support the most common needs of VAT-enabled organizations, *iMIS* now ships and upgrades systems to use the **Tax on** option **Ship To / Recipient**, which bases tax calculations on the contact record who is receiving the item and the country of the shipping address. If you change the method to **Bill To**, all future upgrades of *iMIS* will preserve your choice.

VAT support for Sum of Component Kits

When you create a **Sum of components** product kit in *iMIS* Desktop, all pricing is based on the sum of the individual components of the kit, rather than the kit itself. This supports a mixture of tax rates, which can help you to meet requirements for VAT. If you have VAT enabled, note these features:

- When you order a **Sum of components** product kit in Desktop, *iMIS* comprehensively manages all VAT taxes, transactions, and GL entries based on each of those individual kit components.
- In *iMIS* web views, the product kits that are priced as **Sum of components** generate VAT-correct order lines upon purchase, including any tax authority overrides defined for components of the kit.
- You can override the pricing of one or more items within the kit, and you can override the tax code of individual items as well. To make a kit item non-taxable, for example, you can override the item's tax code to one that you have set to a zero rate. This flexibility supports complex tax situations, which can help you to meet VAT requirements. These overrides work for kit products across iPart-based sites, the Public view and WCM sites, and Desktop.

## New and improved iParts

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*Note:* The upgrader respects your existing iPart configuration settings, so you may not see certain enhancements until you configure your iPart to enable new options.

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New Change History Display iPart

The Change History Display iPart displays a list of data changes. The new iPart was added to the staff-facing account page on the **Member** website and displays the date, action, user, property, previous value, and new value.

New Contact Sign In iPart, integrated into existing websites

You can now add sign in functionality anywhere on your website with the new Contact Sign In iPart. Contacts can sign in, get help if they have forgotten their password or username, or create a new account.

The **Member** sample site now uses the new Contact Sign In iPart, so that members have the most up-to-date sign in functionality. Because it is an iPart, you can add sign-in functionality to any part of your site where you want to make it easy for your users to authenticate and access more content and options.

#### New Progress Tracker iPart

With the new Progress Tracker iPart, you can visually display progress towards a goal based on the results of an IQA query. For example, connect this iPart to a fundraising query, so that your members can easily track the progress of a fundraising effort towards a specific goal.

#### New General Product Display iPart

The new General Product Display iPart now replaces the older Product Display iPart, which is deprecated. Use the General Product Display iPart to allow users to add items to their cart. In addition, the configuration page for this iPart has been improved.

#### Contact Mini Profile iPart improvements

New styling for the Contact Mini Profile iPart helps it to serve as a compact and recognizable "business card" for the current user or the selected contact. This collection of basic contact information now appears consistently across the various tabs on a contact's **Account** page.

The Contact Mini Profile now uses the new iPart base classes, which provide a more standard look and feel, and additional common configuration options.

#### Common Search enhancement

The display of search results has been improved in the Common Search iPart. The UI has been enhanced and new default icons have been added for items that do not have an uploaded image.

#### Invoice Payment Link iPart improvement

In the Invoice Payment Link iPart, when a contact has an outstanding invoice, the button displayed prompting them for payment is now more prominent.

## Usability improvements

#### SSRS reports — Visual tutorial for creating custom reports

A new tutorial with ample screenshots walks you through the process of adding a custom report to *iMIS* with Reporting Services (SSRS). The SSRS documentation is now streamlined and expanded with new overviews to help you master reporting in *iMIS*, from auto-generating reports using IQA, saving those reports back to *iMIS*, and publishing them to your site with the SSRS Report iPart. See the Tutorial: Customizing a report template.

#### Improved search links

In the *iMIS* sample sites, search result links for events and products now use shortcut URLs to determine what content record is displayed, so that it is easier for website administrators to manage which page users are taken to, site by site.

#### Dragging and dropping iParts in a content layout

When designing a content record layout, it is now easier to drag and drop iParts around the page. All major browsers now support this functionality.

#### Friendly URL shortcuts for content records

*iMIS* supports the ability to define friendly URL shortcuts, so that an easy-to-remember URL redirects to a specific page. Now you can create these shortcuts for content records, in addition to URLs. You can also link friendly URLs to specific content based on theme, so that a "donate" URL goes to one record on the main site and a different record on your mobile site, for example.

#### New option to hide the summary panel

To increase screen real estate in the Document System, IQA, Content Designer, BOD, and Content Layouts, a new option has been added to hide the summary panel for the object selected. Select **Organize > Display Summary** to enable this option.

#### Surf-to-Edit icons

Surf-to-Edit has been updated to use a more modern icon set, and the clickable area for configuring iParts has been expanded. The larger clickable area for these icons help to make it easier to edit *iMIS* sites on tappable interfaces, such as tablets.

#### IQA - Intuitive sorting of Properties

When you design and edit queries in IQA, you now see the Properties grouped and sorted intuitively, by source and then by property name. This new sorting affects all of the Properties that you select in the **Filter**, **Sorting**, and **Display** tabs.

#### Easier contact creation

It is now easier to create new contacts in the *iMIS Member* site. From the Directory, select **Add > People** or **Add > Organization**.

#### Fundraising Dashboard

The **Member** site now includes a Fundraising Dashboard, from which you can easily see a snapshot of fundraising activity, including information about new donors, revenue, and acquisition appeals.

#### New style for IQA search parameters

The display of IQA search parameters has been enhanced. This panel is now wrapped in a CSS class, so that you can easily style the search parameters any way you want. This area includes the title and search options.

#### SOA documentation updates

[SOA documentation](#) has been updated. It now includes an up-to-date list of the primary addressable entities, a new section on .NET manager classes, and new C# examples.

## Events enhancements

#### Event Display – support for viewing registrant information

When you edit a user's registration in the Event Display, you can select a new icon to access the registrant's contact details. This information includes their Address (defaults to the preferred mail), Display Name, Title, and Organization. These contact details are the values that are used for the Event Roster and Event Badge reports.

#### Events – honoring separate capacity limits on Registration Options

You can now set **Maximum** values on the functions that you use for your event's **Registration Options** (the choices you offer for overall registration type) and have those capacity limits selectively prevent registration as they fill up, option by option. For example, you can have the **Conference** fill up while still permitting registration to the **Exhibition** alone. When an option fills up (or if pricing is not yet defined), registrants must select another option.



Event registration improvement when working On Behalf Of someone

The process of working *On Behalf Of* someone in Events has been improved. The **Register Myself** button is now updated to Register [name of On Behalf Of contact] (for example, **Register Bob**), so that it's clear who you are registering when working *On Behalf Of* someone.

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## Enhancements in 15.2.1

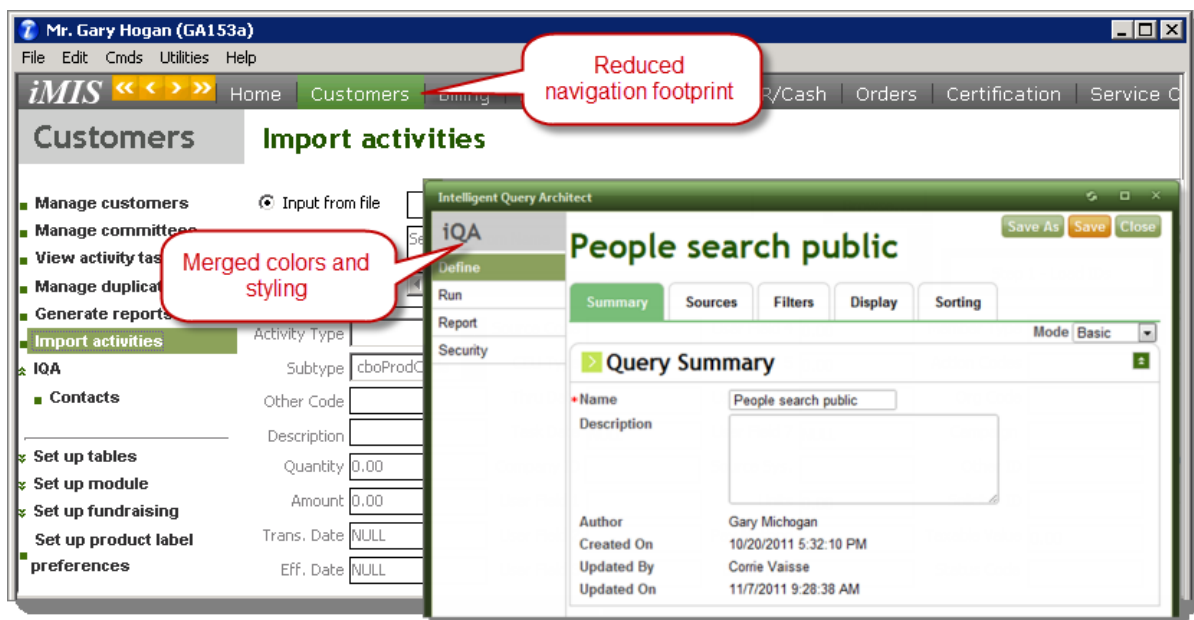
The 15.2.1 release adds to the *iMIS* 15 release, meaning that you can install it easily at any site already using *iMIS* 15.2.0. You can also upgrade directly from *iMIS* 15.1.3.

This release rolls out a wide group of features that let you use iParts to serve members and donors over the web, including integration with social media and support for mobile devices. It also improves quality and performance throughout the product family.

### Desktop visual integration

*iMIS* Desktop has an updated appearance, which moves it closer to the look of the newest web-based environment, the **Member** site. Those parts of Desktop that use a .NET theme (Marketing Suite, IQA, Content Management, etc.) are now using the same theme as the Member site: **Aspen**.

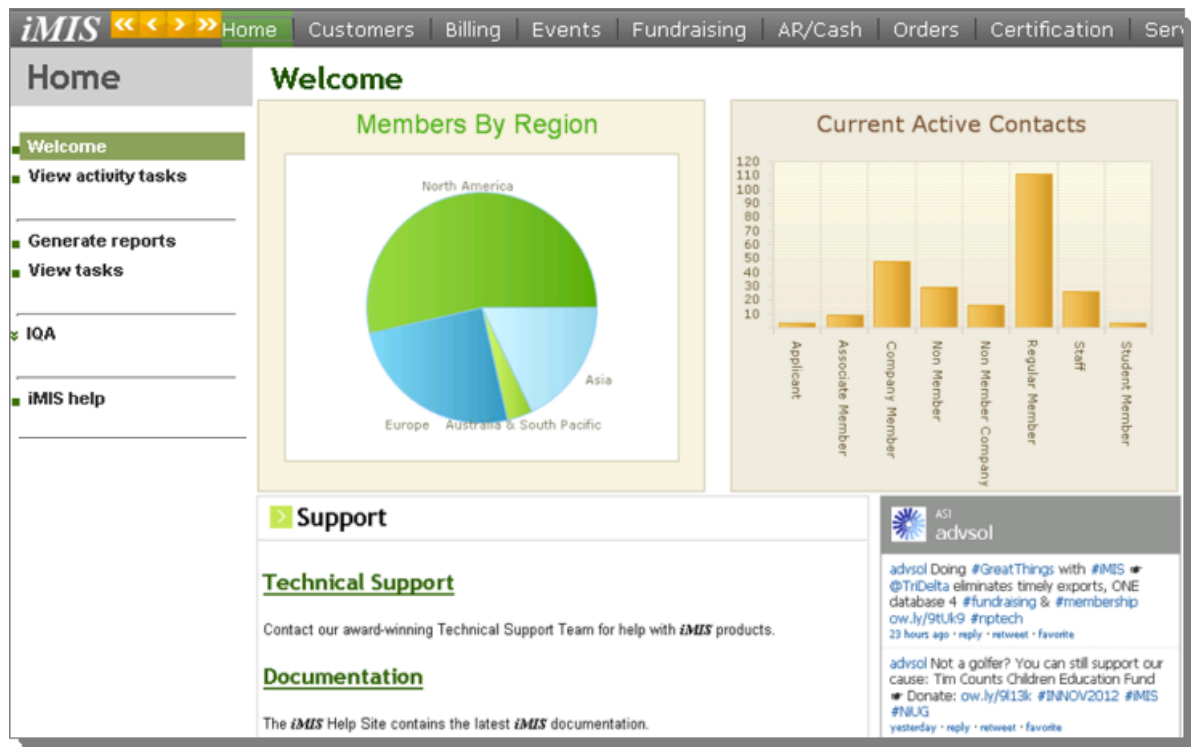
- For your *iMIS* implementers, unifying these underlying themes allows for easy theme changes across multiple views, and it opens *iMIS* Desktop to better iPart integration going forward.
- For your *iMIS* staff, this redesign carries the new look and feel of *iMIS* across its views. Just as important, the redesign reduces the size of the header and navigation elements. This lets *iMIS* Desktop offer the maximum space for content, which reduces paging and scrolling.



### Desktop Home content record

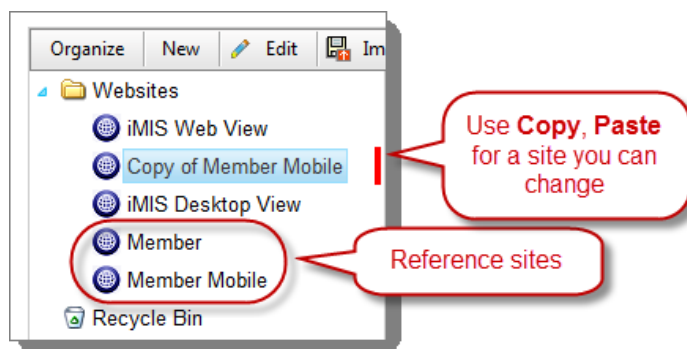
As part of this integration, *iMIS* Desktop has a new page for the **Home** tab (the page that first displays after logging in). This **Home** page is now a content record, which you can manage and update as easily as any other content record. Now, from a browser, you can change your **Home** page content on the fly to meet immediate communication needs, and your **Home** page can host all manner of iParts, which let you display visually engaging, social, and dynamic content to those working in your organization.

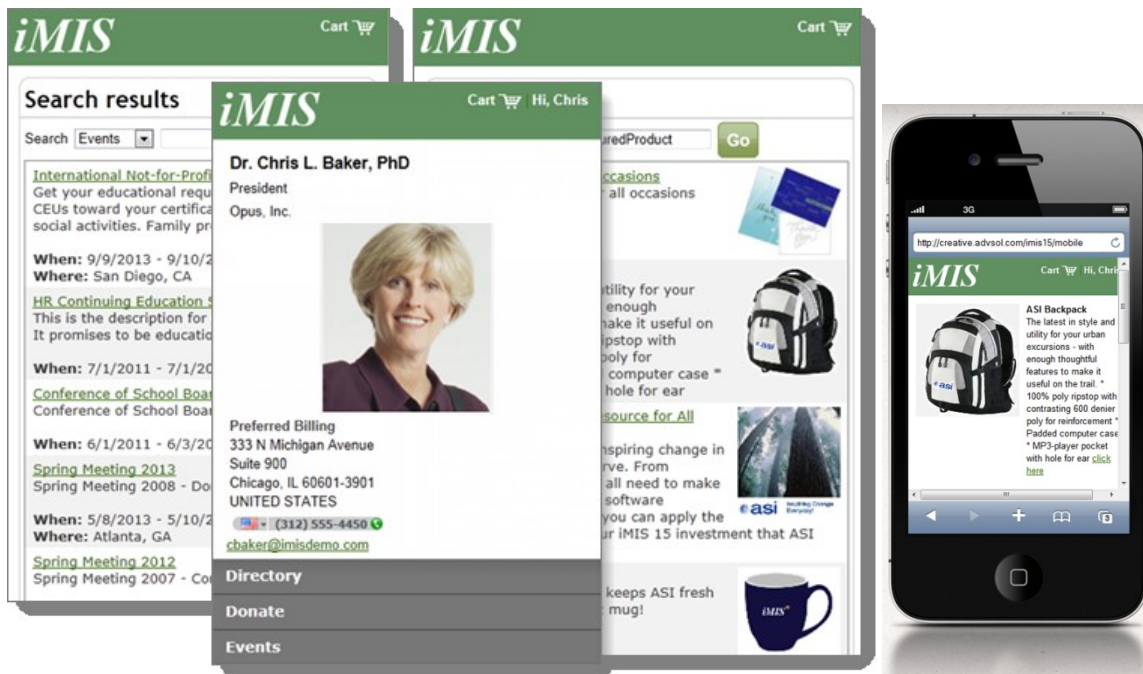
*Tip:* This home page includes a live connection to [ASI's Twitter feed](#), to demonstrate how you could add your own widgets using iParts. Using **Content Manager > Manage content** in a web view, you can reconfigure or remove this iPart by editing the content record for the home page: **@iMIS/Desktop Home**.



## New Mobile site

**iMIS** ships a new reference website that is optimized for use on mobile devices. The site, called **Member Mobile**, includes the ability to register for events, shop, and donate. In addition, your staff and members can search for contacts.



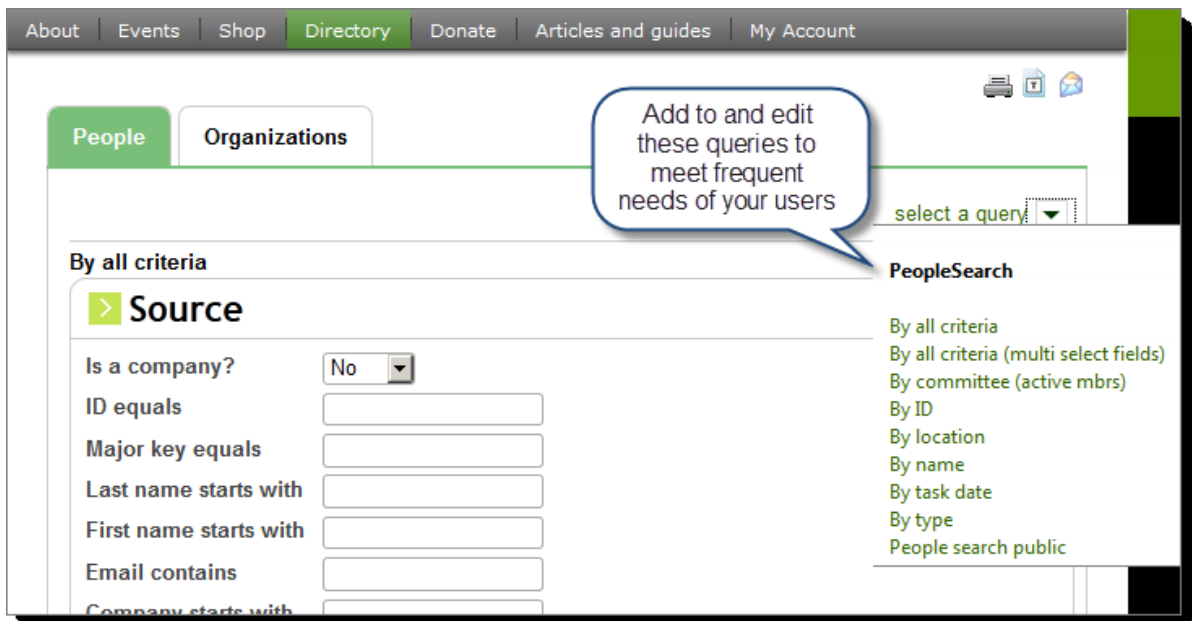


See Implementing a Member Mobile site.

## Member site expansion

The **Member** site has numerous enhancements that improve customer experience and tighten integration with *iMIS* Desktop.

- **Directory Searches for Contact Data** – Replicating the versatility of Find (**Adhoc Search**) in Desktop, the Directory page offers a drop-down list of prebuilt searches, which use a set of queries in the Document System (`$/ContactManagement/DefaultSystem/Queries/Directory/PeopleSearch`). You can add to and change these queries, control the formatting of the printed output, and export the contact data to Word, Excel, and data files. Currently only administrative staff can access this feature.



- **Account page for public users** – A new page for viewing and managing their account now appears to public users in the **Member** site. These separate account pages are designed specifically for staff and public users, so organizations can control the information displayed to each group.
- **About Me: extended contact data from Desktop** – The *About Me* page has been expanded to include comprehensive data from numerous tabs in Desktop: **Status**, **Profile**, **Financial**, **VAT**, and **Other**. An authenticated user can now view, add, and edit this extended contact record data from the Member site without having to access Desktop.
- **Communities available in Member sites** – **Communities** is now available in the **Member** site, with stylesheets adjusted to work within the new themes and masterpages. **Communities** includes forums, blogs, wikis, announcements, and libraries for shared resources.

## Contact and address enhancements

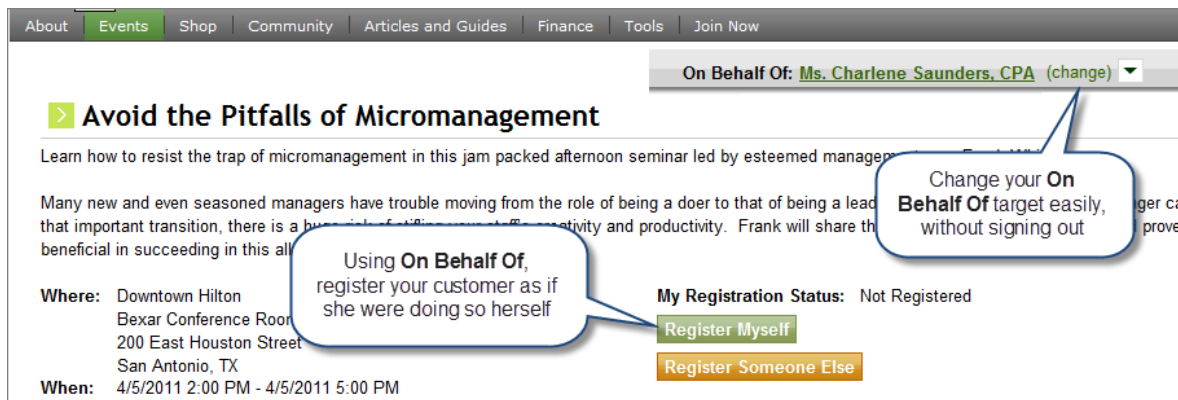
- **Facebook picture for iMIS profile** – You can now set up the *Contact Mini Profile* and *Contact Profile Picture* iParts to prompt users to use their Facebook profile picture in *iMIS*. The option appears when they edit their *iMIS* picture. To use this feature, you create a Facebook application, so that your website can connect to Facebook.



- **Contact Address Editor flags bad addresses** – *Contact Address Editor* now displays a **Status** field if you have set up values in the BAD\_ADDRESS validation table. You can mark addresses with codes such as Moved or Invalid.
- **Adding and parsing single-line addresses** – A new option in the *Contact Account Creator* and *Contact Address Editor* lets you provide a single address-entry text field for contacts in the U.S., so that they can enter their Street Address, City, State, and Zip code in a single text line. On submission, the address verification service parses the entry and stores the values in the appropriate fields.
- **Contact iParts can show ID, status, billing categories** – *Contact Mini Profile* and *Contact Status* iParts have been enhanced to optionally display the *iMIS* contact ID and billing category. Both iParts can also be configured to allow users to edit the contact's status and billing category.
- **Better address verification for U.S.** – Validation rules for U.S. addresses have been relaxed. Users are no longer required to verify their address when they only enter a 5-character zip code. If everything else checks out, the missing 4 digits at the end of the zip code append automatically.
- **Support for longer logon names** – Field length for **CsContact.UpdatedBy** is increased from 15 to 60 to allow for longer logon names, which previously caused fatal errors when content editors with long usernames logged into WCM sites. (Note: Support has a workaround for 15.1.3.)

## On Behalf Of: Customer service

A new feature for iPart-based sites, called **On Behalf Of**, gives your staff the power of *proxy*, 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.

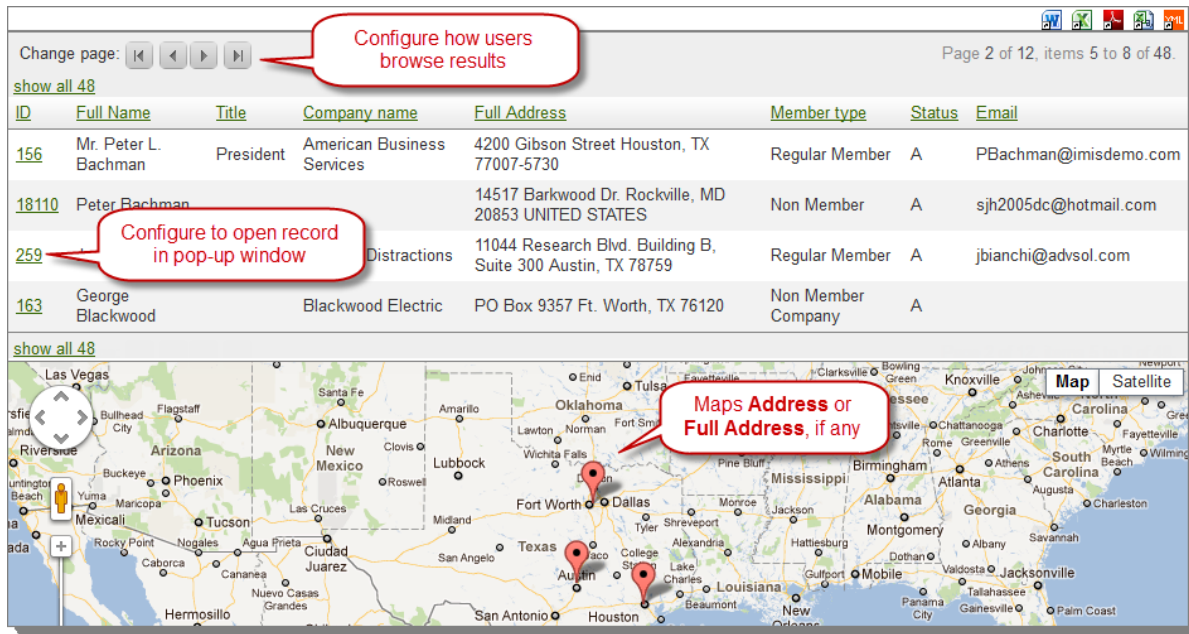


During an **On Behalf Of** session, any items you add to the cart are saved for the target customer, and any transactions you complete on their behalf appear in their account activities. This feature includes these protections:

- **Privileges restricted by role** – To protect the security of contact data, by default only users that belong to either the **SysAdmin** or **OnBehalfOf** role can perform actions on behalf of another contact.
- **Separate shopping carts maintained** – When purchasing items on behalf of a member, a separate (new) cart is used for the transaction. This allows users to maintain their own carts while getting help purchasing items from the organization, which protects the shopping privacy of your users.

## Query Menu results: navigation and mapping

The Query Menu iPart lets you present data (query results) to your customers dynamically; these enhancements help them navigate and use that data more effectively.

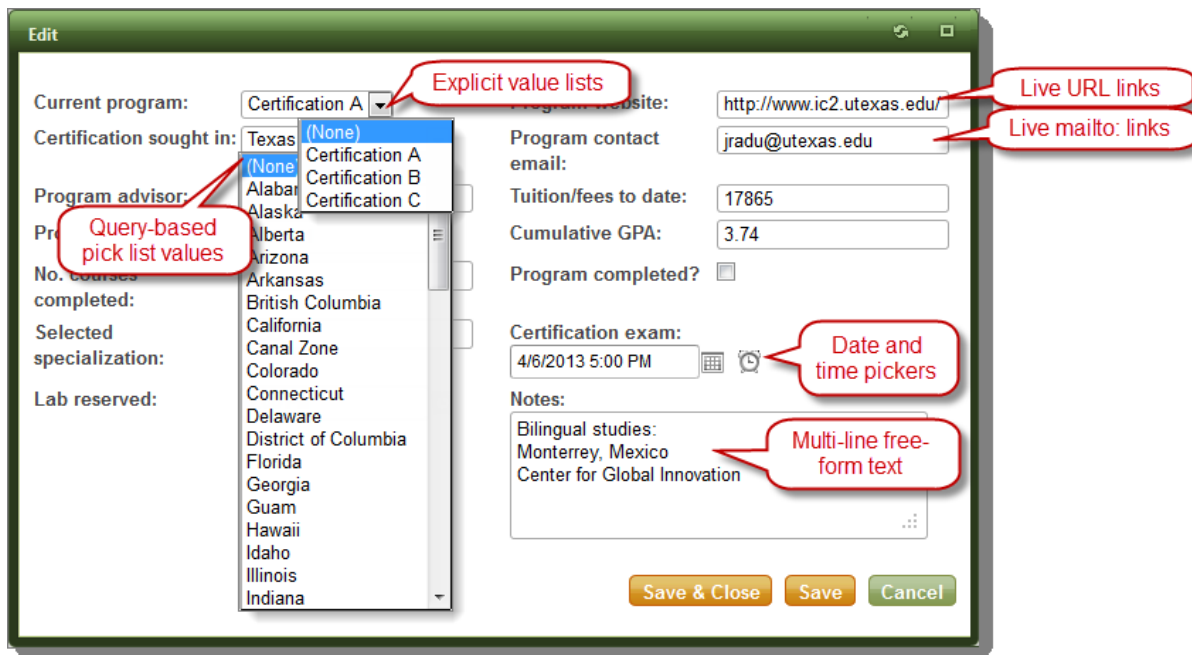


- **Query titles displayed** – The Query Menu now displays the title of the query that is the source of the displayed results, to help you identify and troubleshoot the query.
- **New styles to navigate results** – The Query Menu now has two new display styles: The **NextPrev** style displays simple next and previous buttons to page through results, and the **Slider** style displays a slider below the grid which can be used to navigate through results. (Developers: These paging styles are now available to *all* controls that use **List**.)
- **Option to pop up result details** – For query results that contains links to additional detail, you can configure the iPart to show that linked detail either in a popup window or as full-page navigation.
- **Maps of query results** – For queries that contain a **Full Address** or **Address** property, you can select a Query Menu configuration option to map the results automatically using Google Maps.

## Panel data types: Email, URL, value lists

The Panel Editor has numerous enhancements to let you work with more legacy business objects and to create dynamic data that has new properties and validations for the behaviors you need.





## New property types

When you create new business objects using the Panel Editor, you can select these property types in addition to the existing text, numeric, date, and other types:

- **Email property** – The **Email** property creates a live “mailto:” link, which launches the user's default mail application when selected.
- **URL property** – The **URL** property creates a live hyperlink, which launches a new instance of the browser to open the link when selected. This hyperlinked property lets you integrate social media demographics into your custom pages, such as links to Twitter feeds, Facebook pages, and LinkedIn profiles.

## Business object support

- **Access BOs by ID property** – You can now display data from business objects that have a **ContactKey** or **ID** property, which allows Panel Editor to work with legacy contact-based data tables. Previously, only business objects with a **ContactKey** property could be accessed.
- **Panel Collection Editor** can now display panels with multi-instance data. A new configuration option also accommodates wider panels.

## Text property features

In addition to free-form text entry, **Text** type properties have several powerful options for selecting and displaying values:

- **Explicit value lists** – Text properties support explicit value list type properties. You can create an explicit data and display value list when creating a business object property via Panel Editor.
- **Query-based validation** – Text properties support validation-type properties. You can select a query and specify which data and display values to use.
- **Multi-line text fields** – Text properties support multi-line text fields.
- **Editable properties** – You can edit certain settings of text properties after you save them: multi-line/single-line, and pre-defined values settings.

## Fundraising enhancements

Being able to publicize memorials and tributes can motivate donors powerfully, and this release takes advantage of this with attribution options and tribute creation. Additional features expand fundraising effectiveness on **Member** sites.

### Display Name Editor

The **Display Name Editor** iPart lets your donor specify the name to be listed in all reports and acknowledgements for a donation (for example, *Dr. Bob Smith* or *The Smith Family*). When the donation is marked as anonymous, the contact details associated with the donation are still retained in your database, but reports that include the **List as** field will list the donation as *anonymous*.



Name to use for my gift:  
Chris Baker

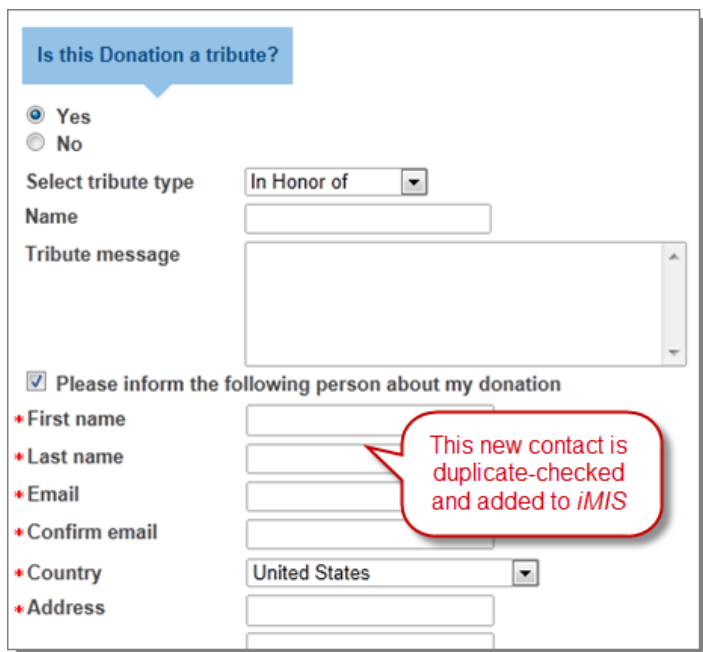
☐ Please make this an anonymous gift

Synchronizes with Donor Data detail tab's List As

You can configure the Display Name Editor so that users can edit any type of salutation you have defined in *iMIS* (for example, **Informal Name** or **Formal Name**). When using the iPart on its own or on a donation page, select the **Donation List As** salutation type to allow users to specify the name by which they want to list the donations they make to your organization. The Donation List As salutation synchronizes with Desktop (the **List As** field in **Customers > Manage customers > Donor Data detail** tab), so that, if one field changes, the other also updates.

### Tribute Gift Editor

When you add the **Tribute Gift Editor** iPart to your donation page, your donors have the choice to designate their donation as a tribute. Donors can specify that their donation is in honor, memory, or recognition of someone, and they can compose a tribute message. If they choose the option to inform someone of the gift, the information they enter for that notification creates a new contact in *iMIS*. The **Tribute Gift Editor** checks that information against existing contacts to prevent the creation of a duplicate contact.



Is this Donation a tribute?

☒ Yes  
☐ No

Select tribute type: In Honor of

Name:

Tribute message:

☒ Please inform the following person about my donation

\* First name:

\* Last name:

\* Email:

\* Confirm email:

\* Country: United States

\* Address:

This new contact is duplicate-checked and added to iMIS



The Gift History queries displayed in the Member site's Fundraising Profile include this new Tribute information for donations, including the Tributee, Tribute Message, whom to notify of the tribute, and their ID.

#### Member site additions

- **Fundraising profile page for staff** – A new page in the **Member** site provides detailed fundraising information about contacts, so that staff members have accurate information about the organization's donors.
- **Matching Gift lookup** – The **Member** site *Thank You* page now includes an example of a matching gift lookup, which prompts your donors to search for their employer to see if it has a matching gift program. To use a lookup service, you work with a third party such as HEP. The sample content record thanking the user for their contribution is [@iMIS/Fundraising/Donation Thank You Page](#); *copy* this content record to use it in your website. It includes a sample implementation of HEP's [E-Match Donor Link](#), which encourages donors to check if their employer has a matching gift program; the link is embedded in a *Content HTML* iPart using an iframe.
- **Donor's Receipt Frequency and Moves Manager** – The Donor Data section of the MBR Fundraising Profile now includes fields for receipting frequency (how often they want receipts sent for donations) and the Moves Manager (the person responsible for obtaining a gift).

## NRDS integration

With the new National Realtor Database System (NRDS) bridge for data synchronization, National Association of REALTORS clients can share information between *iMIS* and NRDS through an automatic synchronization of changes made in *either* database. This process runs in the background as a scheduled task, and you can synchronize specific records manually whenever you need.

The screenshot displays the 'NRDS Member' interface for Crestie A. Altman Smith, a T Dolly Young Real Estate member. The interface includes tabs for Member, Designation, Demographic, Education, NRDS Financial, and Supplemental. A 'Sync With NAR' dialog box is open, showing 'Send to NRDS' and 'Update from NRDS' buttons. Below it, a 'Sync From NAR' dialog box is also open, featuring a 'Select Type of ID' dropdown set to 'Member', an 'NRDS ID' input field, and an 'Update from NRDS' button. A bottom panel contains links for 'Reset', 'Rebuild', 'NetContacts', 'Logging', 'PCI', and 'NRDS', along with a note: 'Click if you want to create the required items to connect to the National Realtor Database System' and an 'Add NRDS Items' button.

The data that you synchronize with NRDS is available for use in queries and reports.

## PayPal integration

*PayPal Express Checkout* is now a supported payment method for the **Payment Creator** iPart. You can collect payments via PayPal for customers checking out from the shopping cart and for donors entering gifts on standalone fundraising pages. Offering PayPal can enhance your sales and campaign success by giving your site visitors the reassurance of a known and secure payment method.

The screenshot shows a 'Payment Details' form. The top section is titled 'Pay with PayPal' and includes a PayPal logo, a link 'What is PayPal?', a message 'You will be taken to PayPal to complete your purchase.', and a 'Pay with PayPal' button. Below this is a section titled 'Other Payment Options' with radio buttons for 'Credit Card' and 'Bill Me'. At the bottom, there is a field for '\*PO number'.

Two callout boxes provide additional information:

- A red callout box points to the 'Pay with PayPal' button: "This block appears if you configure *iMIS* to support **PayPal**".
- A red callout box points to the 'Other Payment Options' section: "This block separates **Credit Card** from other available methods".

As part of this payment expansion, Payment Creator now visually breaks out credit card payment from other payment methods, such as **Bill Me** (for purchase orders). A configuration option lets you set whether to require your shoppers to enter a purchase order number when they use **Bill Me**.

PayPal Express Checkout lets customers with valid PayPal accounts complete payment via *its* website. Because the credit card details never transfer to *iMIS*, PayPal Express Checkout reduces your organization's liability for storing cardholder information.

The screenshot shows two overlapping windows. The background window is the 'PayPal Sandbox' API Credentials page, which lists test accounts. The foreground window is the 'AR/Cash Credit Card Authorization' form.

The 'AR/Cash Credit Card Authorization' form has a 'Current Accounts' list on the left with 'DEBIT', 'PAYPALEC', and 'VERISIGN'. The main form area contains fields for:

- Gateway: Custom
- Account Code: PAYPALEC
- Administrator's Email: [empty]
- Host URL: www.sandbox.paypal.com
- Manual Authorization: [unchecked]
- Immediate Authorization: [checked]
- Deferred Authorization: [unchecked]
- Account description: PayPal
- Partner: [empty]
- Host Port: 0
- Vendor: [empty]
- UserName: jham\_5357737041\_001\_@paypal.com
- Password: [masked]
- Verify Password: [masked]
- Timeout: 10
- Proxy Server Address: [empty]

A callout box points to the 'PAYPALEC' account in the 'Current Accounts' list: "Also changes when it's time to go live".

**Tip:** The documentation for *Credit Card Authorization* is now called *Payment Authorization*, where you can find out how to set up *iMIS* to offer **Pay with PayPal**.

- **Purchases, Registrations, Renewals, Donations** – In addition to product purchases, PayPal Express is a supported payment method when your members register for events and pay for their renewals (their invoices for both cash and accrual dues). PayPal is also an option for members who want to make an immediate donation, *apart* from any pending purchases in their cart.
- **Link to PayPal information** – *What is PayPal?* links to a PayPal-maintained page that explains this third-party payment system. This information will help non-PayPal customers feel confident enough to select the service.
- **PayPal hidden for On Behalf Of** – Payment Creator hides the **Pay with PayPal** option when the signed-in user is working **On Behalf Of**, to prevent confusion and misuse of the payment method.
- **PayPal Reconciliation Report** – A Crystal report lists all PayPal Express Checkout transactions for a selected date range, to help you reconcile *iMIS* records with reports provided by PayPal. The report lists these transactions by Credit Card Authorization Account Code and then by Date entered, and it includes the *iMIS* Gateway Reference field, which contains the Transaction ID that PayPal assigned to each transaction.

## VAT enhancements

New support for value-added taxation (VAT) helps organizations in the European Union to sell to and support their EU customers.

Separate, linked invoices for events adjustments

The new **Event System Preferences** option to *Create Separate Invoices for Events Adjustments* makes it easier to track and print registration adjustments for both online and on-site events, to help you comply with regulations related to VAT invoicing. With this option, every adjustment generates a new invoice document (credit note or positive adjustment), which uses the date of the adjustment, lists any credits or debits, and references the original invoice.

This option links multiple invoices to a single user event registration, so that, when a user registers for an event, any billing information is associated with an initial invoice. Once that invoice is printed, any subsequent changes are then associated with a new invoice. You can view and print these invoices from **Events > Register a customer > Account Info** tab.

Note that enabling this option affects *new* event registrations only; existing registrations retain their consolidated, single invoice.

VAT evaluation by Ship To / Recipient

If your default organization is VAT-enabled, a new section appears in *iMIS* Desktop, in **AR/Cash > Set up module**:



If you use VAT, you can control whether *iMIS* evaluates VAT using the information of the *recipient* (Ship To) contact instead of that of the Bill To contact. That is, if shipping to a different person, that person's contact data determines the tax.

**Tax based on:** lets you change the method that *iMIS* uses for evaluating taxation.

- **Bill to data** - Applies VAT based on the Bill to contact's location and **VAT** tab settings (such as being flagged **VAT Exempt**).

- **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.

See Configuring VAT options in AR/Cash.

## Event definition and pricing

This release brings new depth to event definition and pricing for iPart-based Events. When you set up events in *iMIS* Desktop, the **Event Web Options** window offers you many options for controlling registration and determining registrant class, which grants you fine control over event pricing.

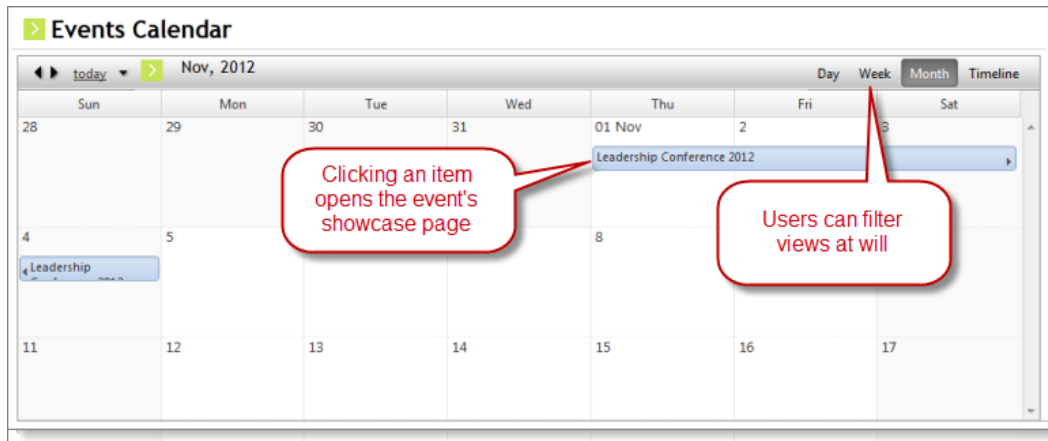
- **Event-level setting for registering others and adding guests** – Rather than disabling registering someone else on a given **Event Display** iPart (which is often shared), you can grant or deny the ability to register others from the same organization at the event level. When you define an event, enabling the option **Allow registering others** lets users register and pay for others from their organization; only if that option is enabled can you also enable the option to **Allow adding guests**.
- **Events methods for determining registrant class** – iPart-based Events can be configured several ways to set pricing: by member status, member type, or by registrant class assigned by a stored procedure (see next). The Event Web Options window lets you specify which of the three options to use. *iMIS* honors zero amounts that are flagged as **Complimentary**, for your free functions.
- **Events special discounting by registrant class** – You can make use of stored procedures to override the registrant class. Such stored procedures let you implement complex pricing promotions, such as 50% off additional registrants from a given company. The Event Web Options window lets you specify a stored procedure to use. Your stored procedure must take a parameter for the current registrant ID, calculate which class to assign, and return a valid registrant class; if it does not return one, default pricing remains in force. It can also take a second parameter for the event ID, which lets you handle multiple events in the same stored procedure.
- **Maximum capacity for events and functions** – iPart-based Events honor the **Maximum** field on the Event and Function detail windows in Desktop, which lets you limit registrations to fit your facility or your activity. 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.



- **Printable version of confirmation** – When the confirmation displays in a popup window, a **Printable version** link opens the confirmation in a new window, formatted for printing and mailing.

## Event Calendar

The *Event Calendar* iPart puts your organization's meetings into a familiar calendar view for easy access and high visibility. It lets your registrants browse events in an intuitive way and double-click the calendar links to open the event showcases, from where they can build itineraries, add to registrations, and access all of the information that you provide for the event.

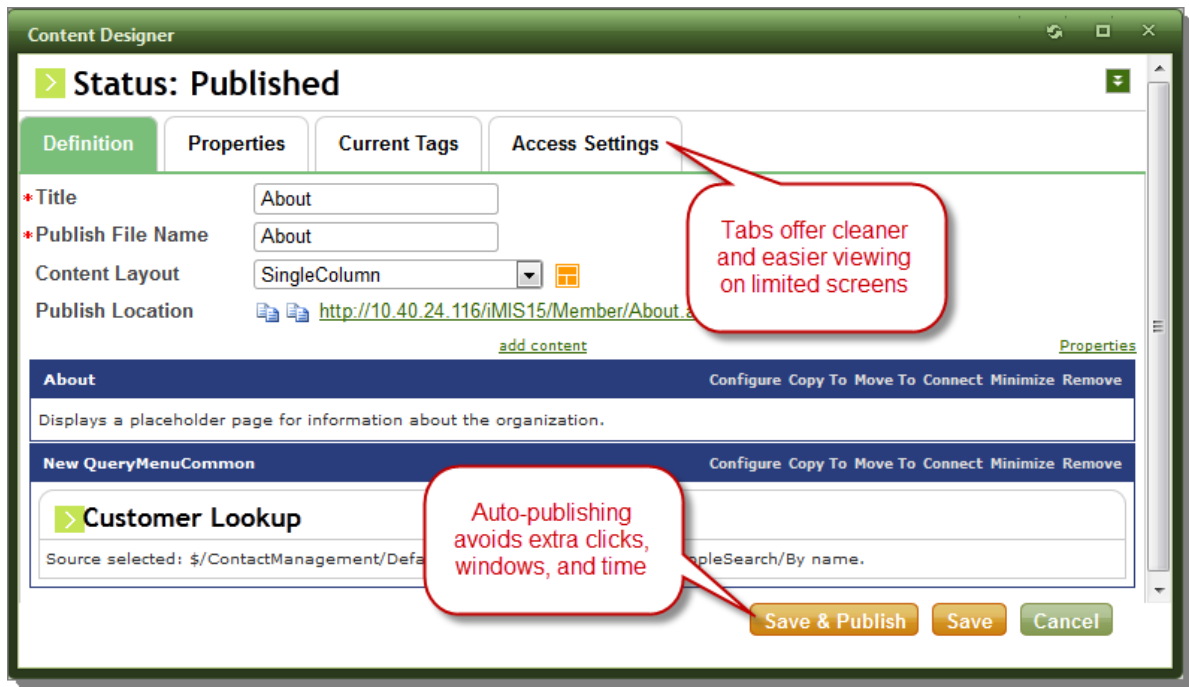


The Event Calendar is a part of the default structure of iPart-based sites, appearing beneath the **Event list** on the **Events** menu. Currently, no security filters the contents of the calendar.

## Auto-publish iParts and content

Publishing in Content Manager is now automated and greatly simplified: you can save and publish your changes to iParts and content records with a single click. When your staff with Content Approver permissions Surf-to-Edit and change a content record or iPart, they see three options: **Save and Publish**, **Save**, or **Cancel**. When your Content Editors use Surf-to-Edit, they see **Submit for Approval**, which is also a great time-saver in your publication workflow. These same options exist when editing content records in Content Designer.

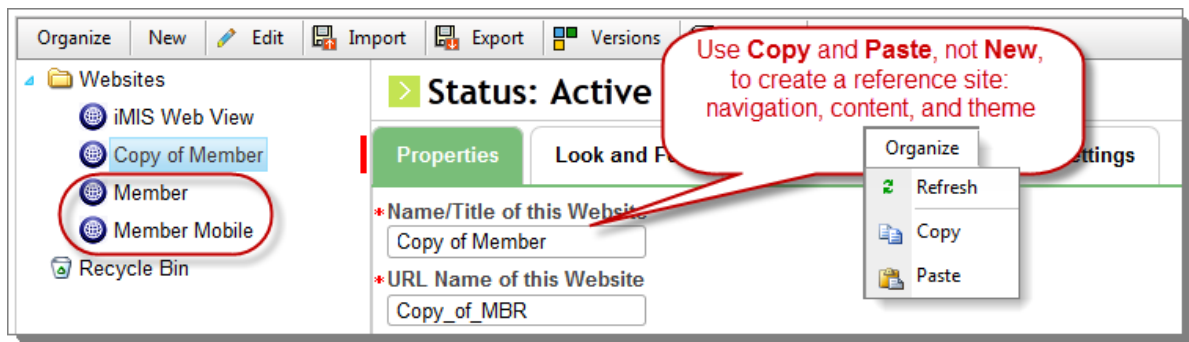




In addition, the **Edit** views throughout **Site Designer** and **Content Designer** now use standard tabbed displays instead of collapsible panels for easier access and viewing across various devices.

## Create sites via Copy website

With system administrator permissions, you can copy and paste *any* existing site, which now generates complete copies of site navigation, content folders, content records, and theme files for you.



To create a public-facing website that makes full use of iParts and SOA, it is important to make a copy of an existing reference site, such as **Member**, and change it to meet your needs. See [Creating an iPart-based site](#).

*Tip:* This release made extensive changes to master pages and themes to support new controls and improve user experience. To upgrade any UltraWave-based site to a new theme, take advantage of the new website copying feature and create a test copy. See [Upgrading Existing Websites](#).

## Embedding external websites

To help you bring older/external resources into your new sites, the *Embedded Web Page* iPart lets you display the contents of a web page within a content record on your site. The URL can be absolute (<http://www.advsol.com>) or relative (`~/Party.aspx`). This iPart is helpful for seamlessly incorporating external resources or existing pages that cannot be migrated immediately upon upgrading. You can find the Embedded Web Page iPart in the *Utility* gallery, from where you can add it to a content record and create a navigation item for it.

## Performance gains

- **SOA**– SOA is now significantly faster when accessing invoice and group data.
- **iPart**– iPart performance has been improved considerably for organizations with large databases.
- **Document System**– Document System performance is faster because of reworked indexes on the Document System and Name table and restructured stored procedures.

## iPart Base Classes

New *base classes* allow iParts to inherit features for both the run-time and design-time controls. These shared features can enhance the functioning of every iPart that inherits them:

- *Configuration options*, such as setting collapsing behavior and assigning a **CSS class**, which is handy for designers to use to control the display of individual iParts
- *User interface*, such as a standard layout for runtime controls and a standard, skinnable options block for commands and drop-down list options:



- *Run-time properties*, such as **EntityManager** (which can run SOA functions) and user type checking: **UserId**, **IsProxied** (for the new **On Behalf Of** feature), **IsAnonymousUser**
- *Programmatic control*, such as disabling design-time validation and handling SOA errors

Base classes help to future-proof iParts: when new features are added to the base classes, iParts inherit them and can make use of them immediately.

Numerous iParts already take advantage of these new base classes. When you create new iParts, [make them inherit from these base classes](#) so that you can make full use of the expanding set of shared functionality and the ability to control your iPart using CSS. You can also [update your existing iParts](#) to take advantage of these new base classes.

## Standards and interoperability

- **.NET features support latest browsers** – IQA, Marketing Suite, and Process Manager support the latest browsers.

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*Tip:* If iParts do not appear correctly on your upgraded site, look for and remove IE8 compatibility tags (`<meta http-equiv="X-UA-Compatible" content="IE=EmulateIE7" />`), which may be interfering.

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- **Exchange 2010** – Public view **Add to Calendar** feature for Events now supports Microsoft Exchange 2010.



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## Enhancements in 15.2.0

The 15.2.0 release adds to the *iMIS* 15 release, meaning that you can install it easily at any site already using *iMIS* 15. You can also upgrade directly from *iMIS* 10.6. Release 15.2.0 gives customers the ability to provide members, donors, and other constituents new and improved self-service options with a dramatic new look and feel, and it offers powerful social media capabilities. Constituents can:

- Manage their own profile information, including any combination of contact and demographic data, transaction history, or other user-defined fields, as well as chapter, committee, or online community memberships.
- Enjoy a robust online shopping experience with expanded shopping cart and registration capabilities when buying products, renewing memberships or subscriptions, making donations, and registering for events.
- Recommend products, events, or fundraising campaigns through social media sites like Facebook, Twitter, and LinkedIn.

*iMIS* also includes private social networking capabilities—such as online forums, document libraries, wikis, and blogs—to help constituents connect, communicate, and collaborate with one another, and it comes with powerful and flexible web content management capabilities that allow customers to easily create personalized web pages with their constituent data.

### iParts for building self-service websites

15.2.0 includes dozens of new iParts and SOA-based features to help you build great websites. These enhancements offer powerful ways to build and automate precisely tailored interfaces for your site visitors, all without touching any code.

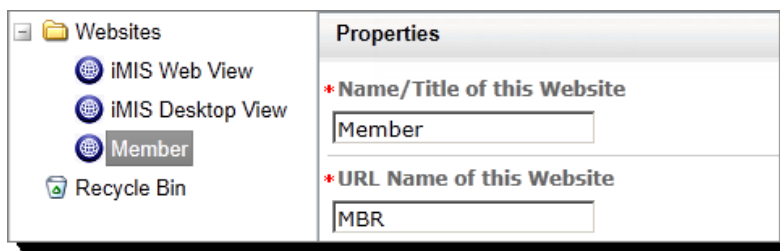
You can create and manage unique content and present that content in a variety of ways, through security settings, third-party tools, custom fields, and user-generated content. Many of the iParts work together as sets to create rich online features, such as event registration and online shopping.

To add iParts, you click **add content** and choose one in the **iPart Gallery**. Configuration options common to each iPart include whether to create a display title and whether to show borders around the iPart.

#### ***iPart-based reference site: “Member”***

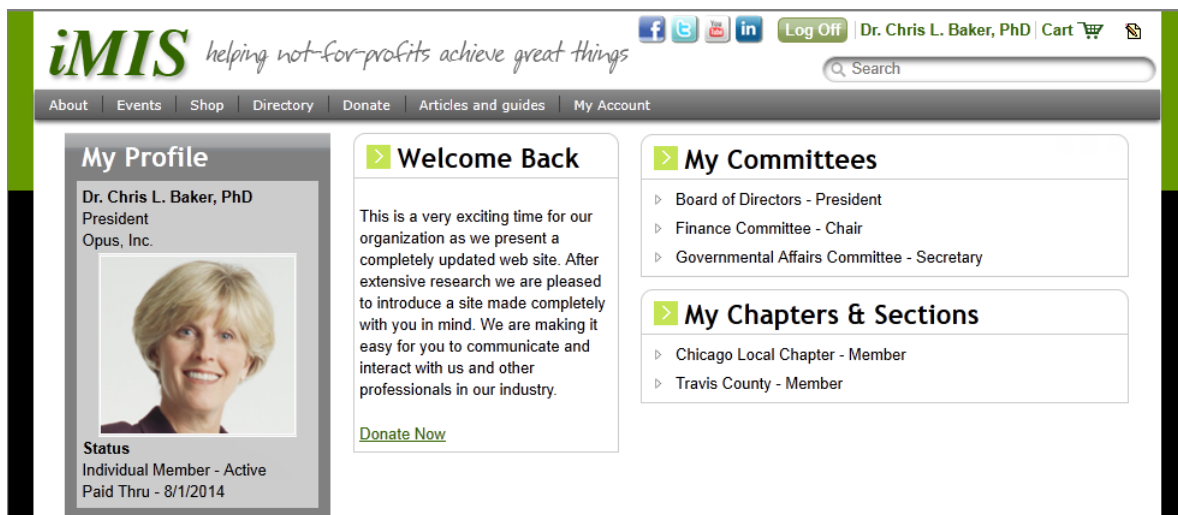
Because new and improved iParts and features are being added to *iMIS* with every update, *iMIS* now installs reference sites and a demo database that, together, fully demonstrate the more complex enhancements. Moreover, these reference sites and data will remain synchronized with the ever-changing state of *iMIS*; they showcase all of the new iParts, functionality, and UI improvements as they become available.

15.2.0 introduces the site **Member**, whose purpose is to show you how to build an iPart-based site for your members and how to combine related iParts for features such as commerce and events. In your list of *iMIS* websites, select the **Member** website:



By browsing to your **Member** website, you can see how the iParts and pages present your current users and content. For example, if you have events currently defined and set to **Show on web**, you will see them populated on the **Events List** page. You can add new content records and navigation items to the site for your own testing purposes, and these objects will be preserved across upgrades.

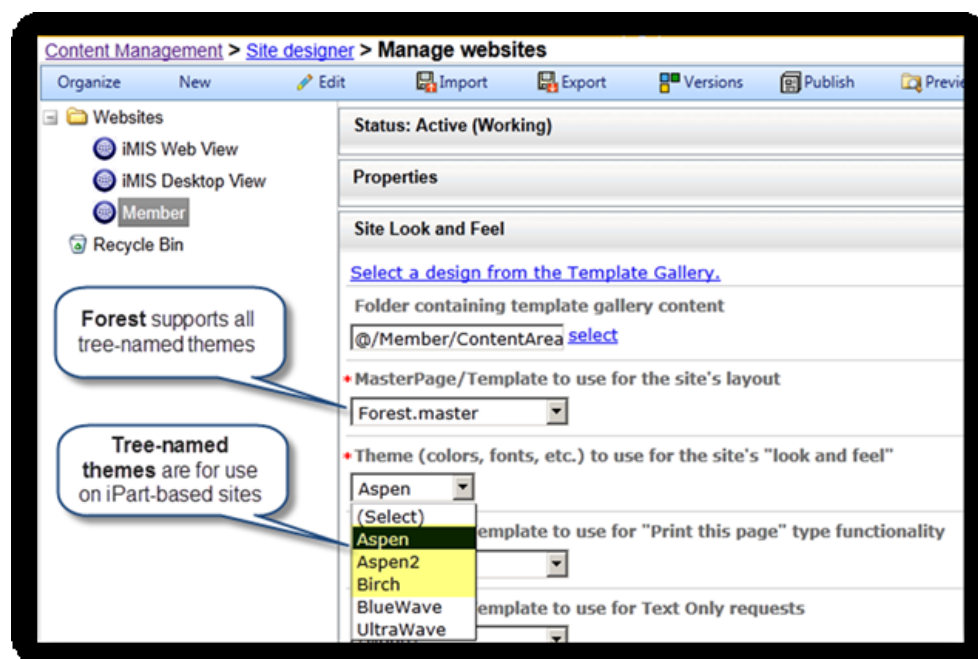
To see the reference site in action with demonstration data, you can connect to the demonstration database (**DemoDB**). This database includes a set of demonstration users and content needed to experience how the iParts work together. Sign in as Chris Baker: **cbaker/cbaker**; this user has full privileges to the system, so you can exercise all aspects of content layout, iPart configuration, and use.



To create a public-facing website that makes full use of iParts and SOA, you can create a **1700** site and implement those elements of the **Member** site that meet your needs.

### New themes for iPart-based sites

This reference site uses a new masterpage (layout) called **Forest.master**, which you can skin with one of three default **Themes** (colors, fonts).

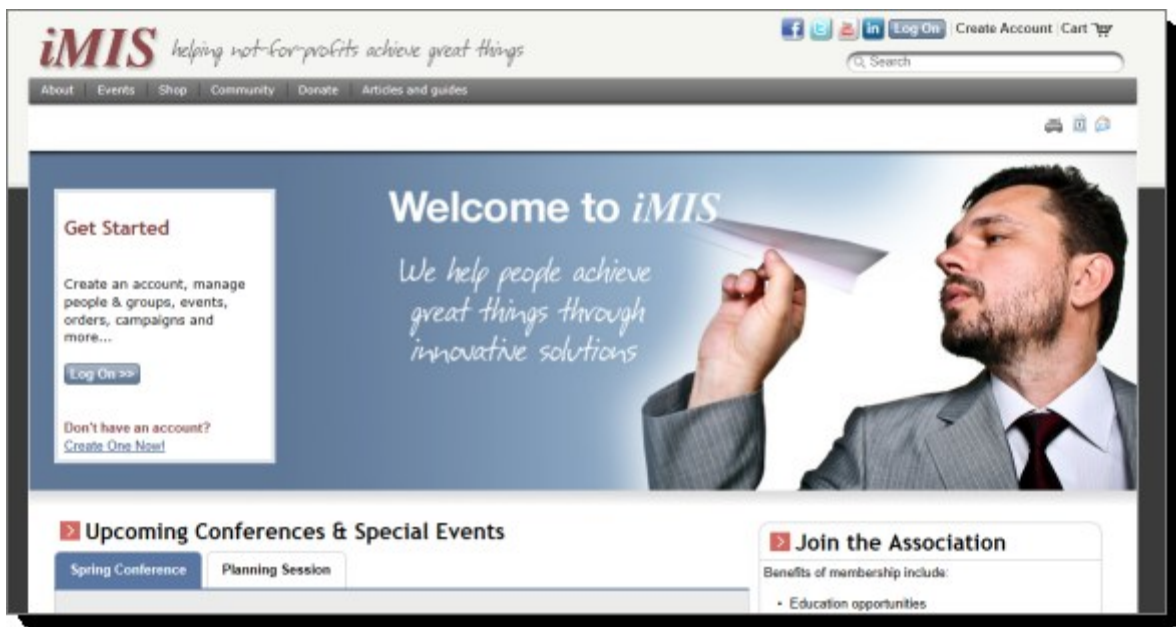


Before modifying a theme, you can find the best one: you can apply all of the themes to the default **Member** site in turn, and decide which theme is closest to the final look and layout that you want.

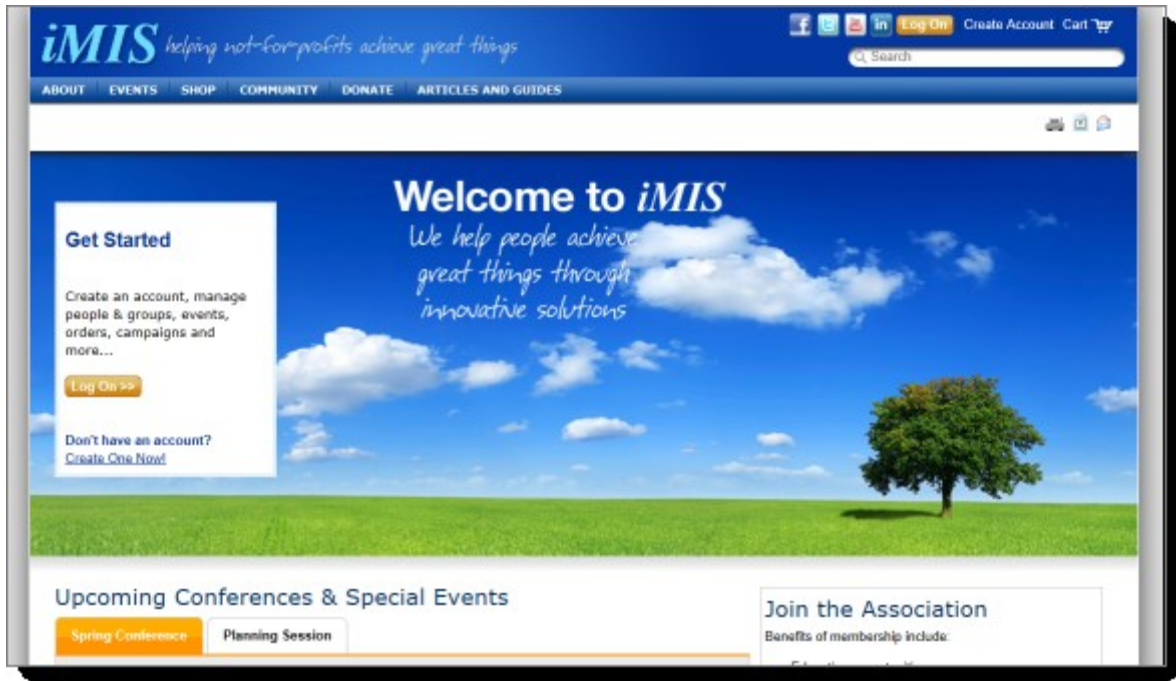
Aspen (green)



Aspen2 (white)



Birch (blue)



### ***Contacts iParts offer editable contact data***

(iPart Gallery > Contact folder)

With the Contact iParts, you can build custom, self-service web pages from which your members or customers can manage their information when and how they want. The **Account Page**, for example, is a Content Collection Organizer iPart, which combines several contact records into one set of tabs that you can extend, and each of *those* content records combine and lay out Contact iParts as you specify:

About Me

My Participation

(edit)


Dr. Chris L. Baker, III, PhD

President

Opus, Inc.

> Profile Picture

(edit)



> Password

(change security)

> Membership

Member Status:

Individual Member - Active

Paid Thru - 8/1/2014

Renew

> Addresses

Address

Home Address

+

(edit)

333 N Michigan Avenue

Suite 900

Chicago, IL 60601-3901

(312) 555-4450

(512) 491-6298 fax

[cbaker@imisdemo.com](mailto:cbaker@imisdemo.com)

Preferred Mailing Address

Preferred Billing Address

> Demographics

(edit)

Spouse

Pat

School Attended

Northwestern University

Sponsor

Mobile Phone

312-443-9872

Date Certified

Staff Size

Annual Revenue

Activity Fee

You can use any combination of the Contact iParts below to personalize your contact pages:

- **Change Logon Password** – Allows users to change their logon name and password.
- **Contact Account Creator** – Allows users to create an account for an individual or organization. By default, this iPart displays fields for the contact's Name and Email address, but you can also configure it to display fields for the contact's Prefix, Suffix, Phone, and Address. Other options include the ability to allow users to create a logon and password at the same time that they create their account and to allow users to create individual accounts, organization accounts, or both.
- **Contact Address** – Displays the contact's address. You can select which address type to display in configuration.
- **Contact Address Editor** – Allows users to add or edit an address. They can also view and edit notes associated with an address.
- **Contact Communities** – Displays a list of communities to which the user has subscribed.
- **Contact Mini Profile** – Displays the basic contact information for a contact record, which can be an individual or a company. This information can include the name, profile image, address, and member status.
- **Contact Name** – Displays the name, title, and company name for a contact record, which can be an individual or a company.
- **Contact Profile Picture** – Allows users to display and edit their profile picture.
- **Contact Status** – Displays the user's customer type, current status, and paid through date.

- **Contact Status Editor** – Displays the contact's status. You can also configure the iPart to allow contacts to update their own statuses.
- **Mini Group Display** – Displays a list of the contact's primary group memberships, including the paid-through date and the role if applicable.

### ***Granular security control for contact iParts***

15.2.0 gives you the ability to specify a user's access to their own and other users' contact information on your iPart-based websites. When configuring an iPart, you can select the **Display for authorized users only** option to hide the iPart from public users when accessing data for another person, which prevents spoofing (changing the ID in the URL to access another's data). You can then disable the option for any iParts that you want to display to public users, such as for a public profile.

The new option is available in many iParts:

- **Contact Mini Profile**
- **Contact Name**
- **Contact Address**
- **Contact Address Editor**
- **Contact Status**
- **Contact Status Editor**
- **Contact Profile Picture**
- **Change Logon Password**
- **Panel Editor**
- **Group List Editor**

**More:**

Security for iParts

### ***Group List Editor manages memberships***

The Group List Editor lets your users view rosters of the groups to which they belong, such as chapters and committees. Hovering over a list entry pops up information about that account, for easy browsing; clicking on an entry opens a **Details** window about the selection.

Memberships

Board of Directors - President

Chicago Local Chapter - Member

Finance Committee - Chair

Governmental Affairs Commi

Opus, Inc. - President

Mr. James N. Bondlum - F

Ms. Linda G. Dress - Vice

Simon Jones - Treasurer

Mr. Steve Carlson - Intern

Mr. James Devon, MBA -

Mr. Matthew Driscoll

Ms. Pauline Francis

Opus Europe

Dr. Chris L. Baker, III, PhD

President

Opus, Inc.

Preferred Mailing

333 N Michigan Avenue

Chicago, IL 60601-3901

(312) 555-4450

[cbaker@imisdemo.com](mailto:cbaker@imisdemo.com)


Status

Individual Member - Active

Paid Thru - 8/1/2014

Role

Chair, 4/15/2009 - 4/15/2014



You can configure the iPart to allow your users to edit their memberships, and to add new ones. If you enable editing in the iPart, the **Details** window offers **Edit** and **Delete** commands for groups that allow it, to manage information about each membership. When you configure the iPart, you can choose which group types to display. You can also select options to display thumbnail profile images and to show inactive memberships.

### ***Commerce iParts provide online shopping***

(iPart Gallery > Commerce folder)

With the Commerce iParts, you can build custom, self-service web pages for online shopping and payment. The Cart Details page, for example, combines several iParts that display pertinent information:



>

Shopping Cart

Continue Shopping

>

Items

Item	Quantity	Price	Total	
<a href="#">Assorted Cards for all Occasions</a>	<input type="text" value="1"/>	10.50	10.50	<a href="#">Remove</a>
<a href="#">Waterbottle</a>	<input type="text" value="4"/>	14.99	59.96	<a href="#">Remove</a>

Update

Ship To

Dr. Chris L. Baker, PhD  
 333 N Michigan Avenue  
 Suite 900  
 Chicago, IL 60601-3901  
 UNITED STATES  
[Choose another address](#)

Shipping Method

>

Cart Charges

Item Total	70.46
Shipping	15.00
Handling	2.00
Item Grand Total	87.46
Invoice Total	50.00
Transaction Grand Total	137.46

Payment Details

Payment Method

\*Card Number

\*Name on Card

\*Expiration Date

\*CSC

Card Address

333 N Michigan Avenue  
 Chicago, IL 60601-3901  
 UNITED STATES  
[Choose another address](#)

Submit Order

The commerce iParts support use by site guests (members who have yet to log in). Guests can shop anonymously and add products to their carts. When they submit their cart, they are guided to create an account or to log in, which adds their new selections to any existing items in their saved cart. To restrict shopping to members only, you can change the access settings on the **Shop** navigation item, to hide it.

You can combine these Commerce iParts to personalize your shopping experience pages:

- **Product Display List** – Displays a list of items available for purchase.
- **Address Selector** – Displays the current address and allows users to select from alternative addresses.
- **Cart Charges Display** – Displays a read-only view of the shipping, handling, tax, and totals for the items in the shopping cart. The iPart supports tax processing rules for the United States, Canada (GST/PST/HST), Asia Pacific (GST inclusive), and Europe (VAT).
- **Cart Details Display** – Displays the contents of the shopping cart and allows for quantity changes and deletions. Since saved carts may contain out of stock and discontinued items, the Cart prompts the user to adjust quantities according to current availability. The **Update** button can be hidden when not needed, such as when the cart appears integrated with the check-out page.
- **Continue Shopping Button Link** – Returns the shopper to the shopping page you specify. You can arrange multiple copies of this iPart on your cart page as best fits your layout.
- **General Product Display** – Displays details of an item available for purchase.
- **Order Confirmation Display** – Displays a confirmation message for a successfully submitted order. The iPart displays taxation for the United States, Canada (GST/PST/HST), Asia Pacific (GST inclusive), and



Europe (VAT). The iPart generates and sends a template-based email confirmation, and it allows users to send additional copies to any recipients they wish.

- **Payment Creator** – Creates payment details for an order on the web or for a donation. This temporary cardholder information is encrypted to protect the cardholder. (This encryption occurs even if you do not implement advanced PCI compliance.) Check digit validation prevents erroneous card numbers from being submitted to the payment gateway. In the shopping cart, payment methods can include purchase orders, credit cards, and debit cards, which you configure through AR/Cash and System Setup. On a donation page, payment methods can only include credit or debit cards. You can enable an Update button to appear in the shopping cart when using this iPart on a page without the **Submit Order Button Link**. For the Card address in the shopping cart, users can select from alternative addresses or enter a new one. On a donation page, users can not select from alternative addresses.
- **Shipping Method Selector** – Displays the current **Ship To** address of the contact, allows the contact to select an alternative address (using the **Address Selector**), and specifies the shipping method as it will be used to fulfill their order from the website.
- **Submit Order Button Link** – In the shopping cart, this iPart submits the current order using the confirmation page you specify, prompting guests to log on or create a new account (using Account Creator) to complete the order. Users can print the on-screen confirmation in addition to the confirmation that is emailed to them; they can also forward a copy of the order confirmation to a different email address.

On a donation page, this iPart submits a donation for processing. The confirmation page displayed depends on how you set up the donation process. See iParts for donation features for more information.

### Self-service for renewal fees

Renewal invoices include items such as membership fees (dues) and subscriptions. The Invoice Payment Link iPart displays a button that users can click to add renewal invoices to their cart for payment. The button displays only if the contact has an open invoice. Users can remove any invoice item from their carts by clicking the **Pay Later** link.

The screenshot shows the iPart interface with three main sections: Membership, Shopping Cart, and Invoices.

- Membership Section:** Displays 'Member Status: Individual Member - Active' and a 'Renew' button. A red arrow points from this button to the 'Pay Later' link in the Invoices section.
- Shopping Cart Section:** Contains a table with columns 'Item', 'Quantity', 'Price', and 'Total'. The table is currently empty, showing 'There are no records.' There is an 'Update' button on the right.
- Invoices Section:** Contains a table with columns 'Invoice Number', 'Description', and 'Total'. The table has one row:
 


Invoice Number	Description	Total
174	Basic Membership Dues for the period from 11/01/2018 through 10/31/2019	95.00

 To the right of the '95.00' total is a 'Pay Later' link. A callout box points to this link with the text: 'Users can choose Pay Later to remove the payment'.

### Donation Creator automates online giving

(iPart Gallery > Offering folder)

With the Donation Creator iPart, you can seamlessly integrate an online fundraising campaign into your site. Using the iPart in combination with other iParts or on its own, your supporters can either pay for the gift immediately from a donation page or add the gift to their shopping cart and pay for it along with any other items from your store. To get started, use the starter pages that ship with *iMIS*, or build your own donation pages from scratch. In the example below, the Donation Creator is used with the Payment Creator iPart to create a page for authenticated users to make a donation.



> Make a donation

Earthquakes, tsunamis, and hurricanes happen without warning. Your gift can help us to respond quickly to the needs of people in a crisis.

\* Gift Amount

☐ 25.00
 ☐ 50.00
 ☐ 100.00
 ☐ 250.00
 ☐ Other

> Card details

Payment Method American Express ▾

\* Card Number

\* Name on Card

\* Expiration Date 01 ▾ 2011 ▾

\* CSC

Card Address

6352 Ernest St.  
Houston, TX 70645  
UNITED STATES  
[Choose another address](#)

#### More:

iParts for donation features

### **Events iParts allow self-serve registration**

(iPart Gallery > Offering folder)

With the new Events iParts, you can let your customers browse, search, learn about, and register themselves for events, large and small. Your events can range from a simple single meeting to a large complex conference with numerous functions, across many days and tracks. If enabled, your customers also have the option to add and pay for multiple registrations at the same time. Design your events in Events Setup (Desktop) as usual, and use the Events iParts to present your events for self-service registration in any *iMIS* SOA-based website.

Anonymous visitors to your website (both non-members and members who have not yet signed in) may view information about events and functions, but they must sign in to register.

All available events are listed in the results of Search iParts (such as **Events > Event list**). Customers can browse this list or use the **Search** box to search for a word or phrase.

**> Spring Conference**

The Annual Spring Conference is the premier event of the industry! Don't miss out on this opportunity to interact with industry leaders as we convene face-to-face in May.

**Where:** Convention Center  
800 West Katella Avenue  
Anaheim, CA

**When:** 2/1/2015 - 2/3/2015

**My Registration Status:** Registered pending checkout

[Cancel My Registration](#)

[Register Someone Else](#)

Add or remove items before checking

Enable **Is an Event Option** on one or more functions to create pricing levels

Allow users to register and pay for others *in their company*, if appropriate

Registration Options	Price
<input type="radio"/> Exhibit Only	50.00
<input checked="" type="radio"/> Full Conference	350.00

**> Program - Dr. Chris L. Baker, PhD**

Select Programs by  ☐ Only display program items in my itinerary

View only those functions that are selected, to create a printable itinerary

**> Sunday, February 01, 2015** [Show](#)

**> Monday, February 02, 2015** [Hide](#)

11:00 AM	<b>Best Practices for Using and Managing Committees in IMIS</b> Volunteers come and go and managing committees can be a headache! Join us as we show you how the Committees module works within iMIS, <del>ways to manage committees more</del> efficiently and est practices so integration within your social r and you running for asperin!	<a href="#">Add to registration</a>
	Track: Basic Category: Product Price: 20.00 2/2/2015 11:00 AM - 2/2/2015 12:00 PM	Assign a function to one or more <b>Track</b> or <b>Category</b> , which users can use to filter their view
11:00 AM	<b>Database Setup and Best Practices</b> Instead of flying by the seat of your pants and putting out fires as people ned something done in iMIS, sit down with us and discuss best practices in database setup. leaving you with a consistent and efficient	<a href="#">Add to registration</a>

Web-enabled events open from searches onto the default Events page. This page positions the **Event Display** above the **Event Program Display**, which presents all program items (functions) in sortable, collapsible sections, for easy browsing by your registrants.

- The Event Display iPart shows event information and lets customers register for the event.
- The Event Program Display iPart lists all functions within an event that the registrant has the option to select. Clicking **Register** for the event enables these links for adding functions to the registration.
- The Function Display iPart pops up to show detailed function information and lets customers add it to their registration. Clicking **Register** for the event enables these links for adding specific functions to the registration.

**More:**

iParts for events

## Social media, video, web widgets

Several iParts now let you integrate your social media presence and extend your website with third-party widgets.

### ***Social media iPart adds linking and bookmarking***

Your users can easily bookmark or share pages from your WCM-generated websites with social networking and bookmarking sites like Facebook, Twitter, and Digg using the AddThis For Social Networking iPart.



## ***YouTube iPart embeds video in pages***

Users can watch videos you have selected without leaving your site from the YouTube iPart. You can configure the iPart to play the embedded YouTube videos automatically, to hide or display the player controls, and to specify the height and width of the video.



## ***Content HTML iPart supports third-party plug-ins***

Using the Content HTML iPart, you can install and display JavaScript-based web plug-ins (sometimes called *add-ons*, *widgets*, or *gadgets*) in your WCM-generated websites. A web plug-in is a small program that your users can run *within* your web page, for a wide range of functionality.

For example, [Google Gadgets](#) offers thousands of free plug-ins, including mini applications, games, news feeds, maps, and a wide range of other types of content. Many other websites also provide free add-ons that can access data from their site. For example, [Twitter](#) provides add-ons that let you display Twitter updates on your website. [LinkedIn](#) provides plug-ins that display information such as company profiles, member profiles, and links to share on LinkedIn. A quick search of the web will reveal many such mini applications to meet your needs and engage your members.

### **More:**

Using the Content HTML iPart

## **Queries and reporting**

15.2.0 includes a diverse set of query-related improvements and new iParts that let you find, filter, present, and export *iMIS* data with exceptional control.

### ***Enhanced security of queries***

To help prevent security breaches of queries, the default security access mode has changed. The default security access for queries was changed from the **Share** to **Authenticated Users Full Control**. This setting will prevent anyone who is not an authenticated user from accessing (or running) queries.

**Important:** After upgrading, all existing queries are automatically updated to the new default.

## Live links in IQA query results

Now IQA lets you design search results that contain live hyperlinks within the items that are returned. Using the **Link** feature on the **Display** tab, you can create hyperlinks for one or more columns in your query results. These links let users immediately click through to the records and content that they are seeking. In the example below, users can click links to contact profile and product pages.

Recent Orders			
Transaction Date	Full Name	Product Name	Quantity
1/5/2011	<a href="#">Mr. Charles P. Better, LLM</a>	<a href="#">Waterbottle</a>	9
5/6/2010	<a href="#">John Waitts</a>	<a href="#">Video - Creating a New Business</a>	1
5/6/2010	<a href="#">Sam Self</a>	<a href="#">Video - Is Fast Food Franchising for YOU!</a>	1
5/6/2010	<a href="#">Isaac Wilder</a>	<a href="#">Video - Excelling through Service</a>	1
5/6/2010	<a href="#">Fran Ramos</a>	<a href="#">Video - Creating a New Business</a>	1

You can add this linking while you are editing a query: on the **Display** tab, populate the **Link** field with parameters to generate the custom link. The link must point to a content record, a navigation item, or an ASPX web page in your website. You can also dynamically populate the target page based on the value of one or more URL parameters.

### More:

Linking IQA results

## In-place editing of list-based queries

Now administrators can edit the queries that drive IQA-generated lists 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 ability means that you can make quick and easy changes to query filters, column display, and sorting.

Directory > Committees		
<a href="#">Edit Source Query</a> <span>Link lets administrators make quick changes</span>		
	Name	
<a href="#">select</a>	Awards Committee	COMMITTEE/AWARDS
<a href="#">select</a>	Board of Directors	COMMITTEE/BOARD
<a href="#">select</a>	Education Committee	COMMITTEE/EDUCATION

### Subtotaled queries display in hierarchical grids





IQA can now display the results of subtotaled queries in hierarchical grids, which are made up of summary and detail rows that users can expand and collapse as needed. To enable this feature for a query, select a property's **Subtotal** checkbox on the **Display** tab in IQA. Subtotaled properties show in the summary rows, while all other properties appear in the detailed rows. Numeric values, such as *Donation Amount*, are automatically summed and displayed in the summary row.

iQA

Donations by City

DefineRunReportSecurity

Save AsSaveClose



Details expand below summary rows

City		Amount		
▶	Austin	850.00		
▼	Bryan	225.00		
	iMIS Id	Full Name	Member Type	Amount
	18043	Aaron Anderson	NM	150.00
	18044	Brad Brown	M	25.00
	18045	Greg Davidson	STU	50.00
▶	Houston	4608.92		
▶	Pflugerville	300.00		

#### More:

Hierarchical grid display

### Query Menu offers choice of queries to run

The Query Menu iPart lets you merge query results into your site for tremendous utility. You can set the iPart 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.

## 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 iPart to that *folder*. When the page loads, the iPart 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 iPart immediately runs that query and displays the results.

### Conference Reports

Events - Default

Event Function Name	Facility	Start Date	Events	Functions	ValueList
Avoid the Pitfalls of Micromanagement	Downtown Hilton Bexar Conference Room	4/5/2011 PM	Default	Default	EventCategoryList EventFunctionCategoryList EventFunctionRegistrationTypeList
Conference Program Planning Session	Metro Center, Room B-500	3/3/2011 1:00:00 PM		3/3/2011 PM	
Finance Section Meeting	Metro Center, Room B-500	2/9/2011 12:00:00 PM		2/9/2011 PM	
Spring Conference	Convention Center	5/15/2011 1:00:00 PM		5/16/2011 5:00:00 PM	

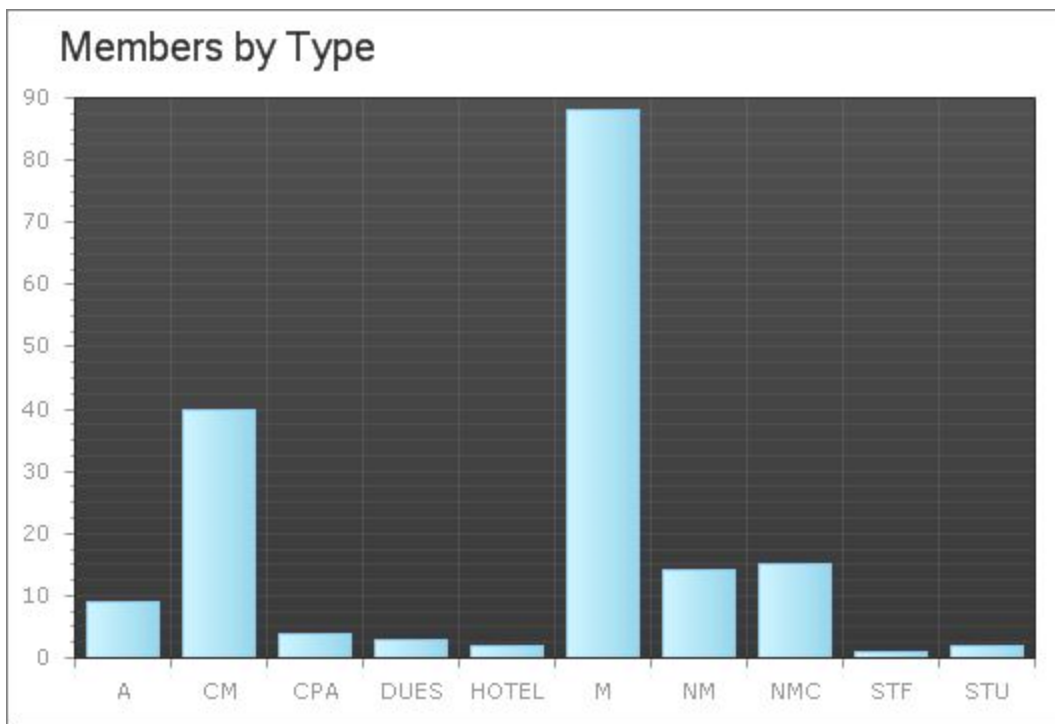
Select a query ▼

Specify a **query**, or specify a **folder** to add additional queries

The iPart runs the **first** query in the folder; clicking a menu option runs that query


### ***Query Chart Viewer renders queries graphically***

Displays query results in a chart, such as a pie chart or a bar graph. You can configure the chart's appearance by altering the iPart's title, type, skin, size, and labels. The example below displays a bar chart based on a query **Members by Type**.



### ***Query Profile Picture List displays images***

Displays a group of profile pictures based on the results of an IQA query. For example, you can write queries to display the profile pictures of everyone who has registered for an event, made a donation, or ordered a particular product. The list can be configured to display horizontally or vertically, and you can display small, medium, or large profile pictures. 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.



**Video - Is Fast Food Franchising for YOU!**


Price: 59.90  
Non-member price: 75.00

Quantity  [Add to Cart](#)

[View Cart](#)

**Purchases**

3 other member(s) have purchased this product



[Continue Shopping](#)

### **Summary Display**

Shows the first row of query results in a form view, so that you can create custom information displays.





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

### SSRS Report embeds exportable iMIS reports

The SSRS Report iPart makes it possible for you to display the formatted results of an *iMIS* report on any page where you place it. The SSRS iPart leverages the version 10 ReportViewer, which supports IE8 natively and adds the convenience of a **Print** button on its toolbar. You can add the SSRS iPart to any content page: select **add content**, open the **Utility** folder, and choose the content type **SSRS Report**.

SSRS iPart				
				
Member Index Sample				
ID	FULL NAME	COMPANY	CITY & STATE	MEMBER TYPE
109	Mr. John G. Tree, Sr.	Office Supplies, Inc.	Dallas TX	A
113	Ms. Linda G. Dress	Computer Sales, Inc.	Austin NY	A
117	Ms. Mary P. Miles	Positive Thinking, Ltd.	Dallas TX	A
120	Ms. Teri L. Boone	Organized Food Service, Inc.	Austin TX	A
123	Mr. Charles P. Better, LLM	Software Distributors	Dallas TX	A
151	Mr. Sam L. Jones	Messages International	Houston TX	A
197	Mr. Eric Means		Austin TX	A
204	Mr. Das Ramadas		Pflugerville TX	A
205	Michael R. Dunning		JACKSONVILLE FL	A
				Count of A: 9

The iPart lets you choose whether to include export buttons for PDF and Excel versions of the report. When you configure the iPart, you specify the Document system path to **Reporting Services Report** , which binds an RDL template (**Reporting Services Template** ) to a specific IQA query with the parameter settings you choose. Browse to **\$/Samples/ReportingServices** to experiment with sample files.

### Editor-free report creation

You can take advantage of the dynamic SSRS reporting feature of IQA to generate many of the reports you need, without using *any* report editors:

1. **Edit** your query and click **Report** to generate a report that is formatted dynamically using the settings you control through **SystemConfig** parameters.
2. Select **Save Report Definition to iMIS**, which generates your *Reporting Services Template* ([QueryName].rdl) and *Reporting Services Report* ([Query Name]).
3. Now you can create a content record with an SSRS iPart to display your new report, and deploy the content into your site through a new navigation item, tagging, or other method.

## Subreports

If you design your own RDL source files, you can upload them into *iMIS* as new templates, create reports (which link templates to queries), and display those reports with SSRS iParts. Since SSRS subreports are stored as *separate* RDL files that the main report references, you just upload them into *iMIS* separately, grouping them in the same Document System folder.

## Direct URL calls to run one-off reports

Content Management also supports *direct* calls to SSRS reports from your web page code, so that you can create one-off reports you may need. For example, to add a **Print Detail** button on a **Batch details** page, you would call a content item (@/iMIS/Accounting/BatchDetailReport) and pass it a parameter (Batch Number) as a URL parameter. For code samples, see Reporting Services.

## Search creates custom searches and results lists

(iPart Gallery > Utility folder)

Displays a customizable search form that can be configured to:

- Find different kinds of content
- Filter search choices available to the user
- Display and function differently for specific application pages

## User-defined data, panels, wizards

15.2.0 introduces a new set of tools for creating, presenting, and allowing your staff and members to edit user-defined data, specific to your organization. These iParts let you create custom pages in a few clicks, combining content records or diverse table data into seamless interfaces.

## Panel Editors present custom data panels

(iPart Gallery > Content folder)

*Panels* are custom displays of *iMIS* data that you 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:

> <b>Demographics</b> <span>(edit)</span>	
Date Founded	3/17/2005
Annual Revenue	85000000.00
Staff Size	250
SIC Code	3721
Web Site	www.kestrelairtransport.com

Panels display *within* Panel iParts, and this fact lets your users view and edit custom data on the broadest range of browser and platform types that *iMIS* supports. You can manage your custom data directly and conveniently from the web pages where you place these iParts:

- **Panel Editor** (which creates panels and shows *one* panel)
- **Panel Collection Editor** (which *combines* existing panels into tabbed displays)

You can configure the iParts to let your users add and edit that data directly from their browser page. Your existing user-defined tables (from *iMIS* Customizer) and your Activity table data is automatically available for you to use and extend in these iParts.

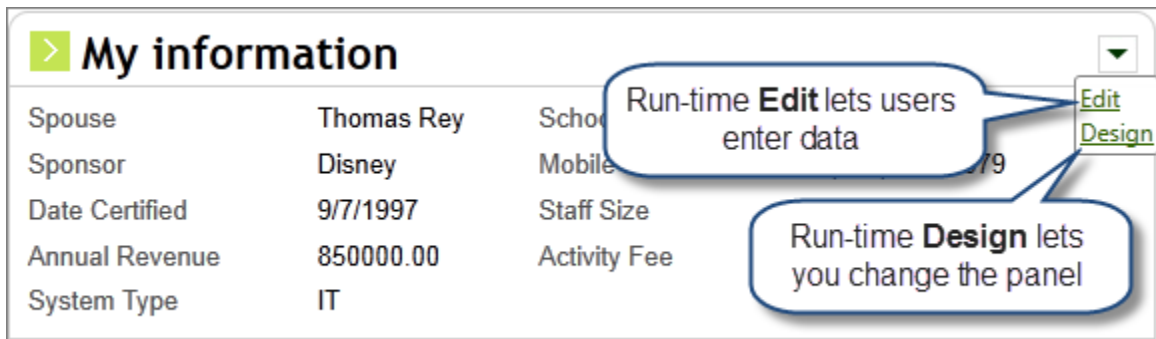
---

**Tip:** Panels are shared: when you update one panel, it updates within every iPart that uses it.

---

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: just surf-to-edit, click **add content**, choose **Panel Editor**, select (**new panel**), drag in and arrange your data, then **Save** and **Publish**.

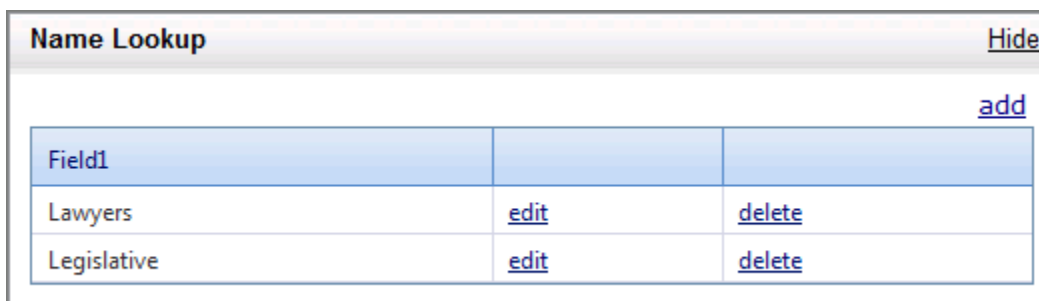
Once you have placed a panel iPart into a content record and published it, you can then edit the panel directly: As a system administrator, you see a run-time **Design** command, which lets you make quick changes to the panel, changes that save and publish for you automatically. For extensive panel work, such as to change the type of data it shows, use surf-to-edit to access all of the content design features.



### Panel Editor

Displays a panel of fields from your *iMIS* database, including User-Defined Fields (UDF) table data as well as existing tables already defined in *iMIS* Desktop. You can reorder the fields and control whether they are read-only or editable by the users. You can combine fields from different tables, with the exception of multi-instance (multiple data lines per record) tables, which need to display in panels by themselves.

The Panel Editor can also display your own business objects if they have a *ContactKey* property. When *ContactKey* is the primary key, Panel Editor treats it as a single-instance table; otherwise, it assumes it to be multi-instance:



Sources include business objects and user-defined tables

Leave cells empty to create white space for grouping

Combine fields from several sources

Note that this iPart replaces the **Contact UD Panel** of prior releases.

#### Panel Collection Editor

Presents tabs of panels that display fields from your *iMIS* database, including User-Defined Fields (UDF) table data. You can reorder the tabs and control whether the fields are read-only or editable by the users. This iPart replaces the *Contact UD Panel Collection* of prior releases.

Use all available panels

Select individual panels

Available

Lists

Selected

Individual

Organization

Selecting panels lets you set the order in which the tabs appear

**> My information**

Individual Organization Lists

Spouse Thomas Rey School Attended Yale

Sponsor Mobile Phone (888) 567-5679

Date Certified 9/7/1997 Staff Size 250.00

Annual Revenue

System Type

**Edit**

Spouse Thomas Rey School Attended Yale

Sponsor Mobile Phone (888) 567-5679

Date Certified 9/7/1997 Staff Size 250.00

Annual Revenue 809.00 Activity Fee 55.00

System Type

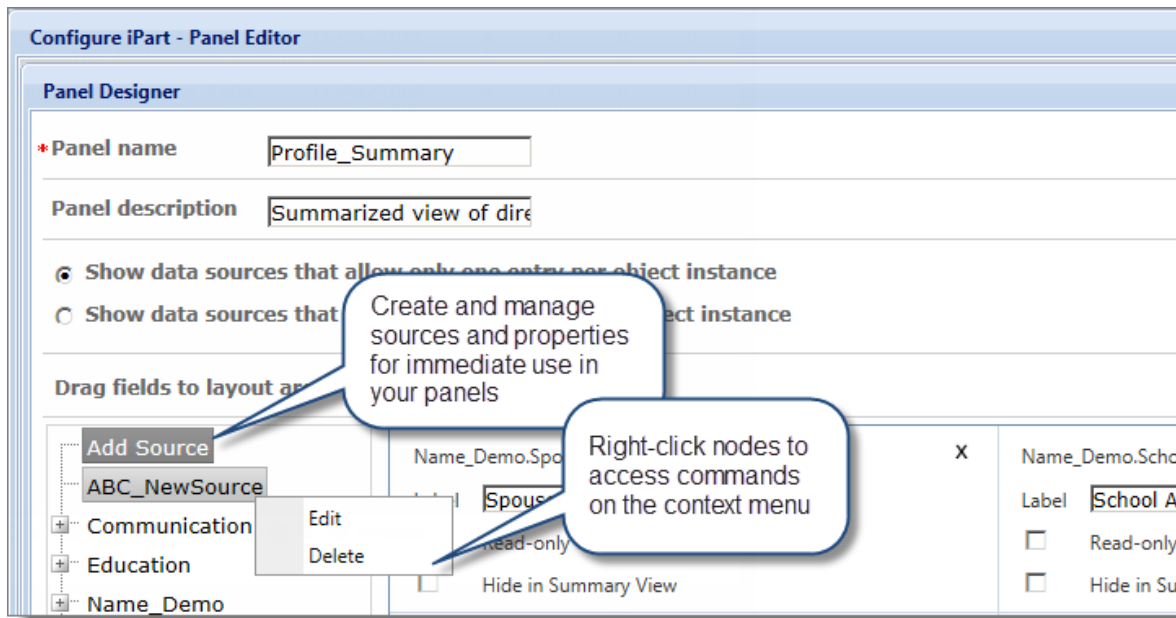
Save & Close Save Cancel

You can enable the **Edit** option so that users can add and change data

### ***Panel Designer creates user-defined data***

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. These are some key innovations it brings beyond *iMIS* Customizer:

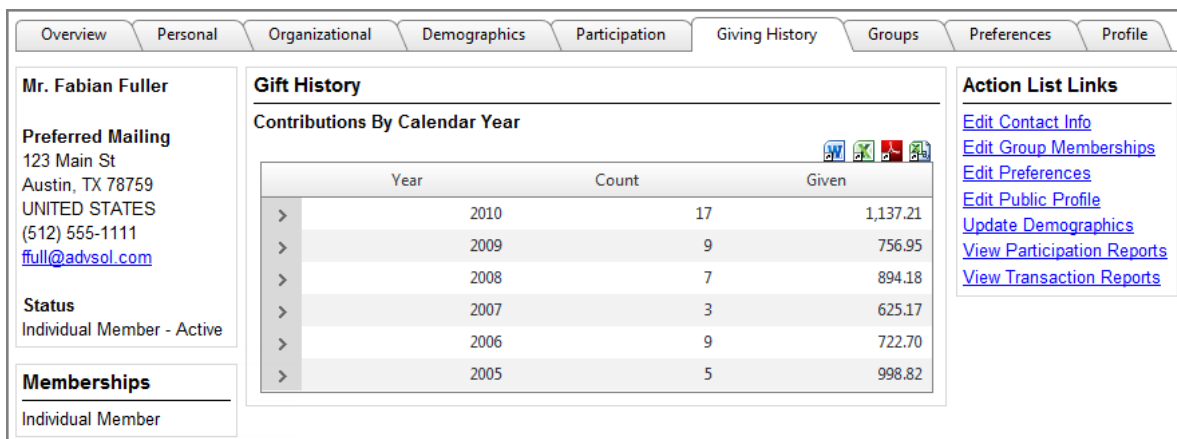
- Uses SOA to define and populate *panels*, which you can reuse across many iPart instances
- Lets you drag and drop fields from multiple tables, as well as drag entire tables of fields
- Supports multi-instance (more than one entry per contact) tables in their own panels
- Dynamically updates in design mode as you add, move, and delete fields
- Lets you customize each field for its label, read-only status, and visibility in the initial view
- Allows you to create your own fields from the Panel Designer itself
- Lets you combine data sources across your legacy user-defined tables and business objects that are linked to Customer tables



### **Content Collection Organizer creates wizards and tabs** (iPart Gallery > Content folder)

The Content Collection Organizer lets you design a collection of content pages, naming the tabs as fits the situation.

- **Tabbed pages:** You can create a non-wizard collection, in which users can visit the tabs in any order, and their updates save independently each time they change tabs. In this case, you can designate one tab to be the default tab that displays when the iPart renders.



- **Wizards:** You can also design a wizard-style workflow, with either numbered or unnumbered steps. Users must progress through the content pages in the order you specify, and their changes are committed at the final step.

## **Standards and performance**

15.2.0 includes significant work to broaden the platform and internationalization of iMIS, as well as to speed up many aspects of system performance and maintenance.

### ***ANSI compliance for improved performance***

*iMIS* Desktop now supports having all ANSI settings enabled at all times, which allows you to fully leverage SQL Server 2008 and to use indexed views, which improves database performance. With this change, whenever Desktop creates a connection (ODBC or otherwise), it does so with all ANSI options turned ON.

To ensure that the entire *iMIS* database has the correct ANSI settings, the upgrade utility rebuilds all tables (including user-defined and third-party) and recreates all stored procedures, triggers, functions, and views. Because of this extensive one-time rebuilding, expect upgrading to be significantly slower for very large databases. Before upgrading, check that you have free disk space equal to the size of your database, as these tables will be copied during the process of conversion and rebuilding.

### ***Improved data access performance***

The data provider *iMIS* uses to connect to a database, execute commands, and retrieve results has changed from OLE DB to the .NET framework's data provider for SQL Server. The new provider is lightweight and improves data access performance, because it is optimized to access SQL Server directly.

In addition, the **Name\_Insert\_Update** trigger has been optimized for faster updates. This performance gain helps *iMIS* databases that have large numbers of contacts.

### ***Address Verification in iParts***

*iMIS* SOA can now perform real-time address verification using web services hosted by ASI. The benefits are many:

- 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 on the **Contact Account Creator** and **Contact Address Editor** iParts automatically upload to this service that verifies and standardizes the address. Users can then either accept the suggested address or keep the original, as they entered it.

**Street Address**

There may be a problem with the address you entered.

Select an address from these alternatives:

☐ Original Address 5000 yonge, suite 1901, toronto, Ontario, m2n7e9, CA

☒ Suggested Address 5000 Yonge St, Suite 1901, Toronto, ON, M2N 7E9, CA

**Use This Address**

Country

Address

City

Province

Postal code

Phone

Fax

☐ Preferred Mailing Address

☐ Preferred Shipping Address

☐ Preferred Billing Address

**Notes**

The countries supported by this service are subject to change. Contact your AiSP to obtain an up-to-date list.

### VAT support for online events

To comply with *Place of Supply* requirements, you can use the **VAT Rules** table to define when not to charge VAT tax. You do *not* need these rules unless your organization faces one of these situations:

- You hold online (virtual) events.
- You hold in-person events in another EU country.
- Your tax advisor determines that charging VAT on all non-exempt registrants is incorrect.

You can create as many rule sets as you need to handle the situations you must support. When you define a VAT-enabled event, you select which of your rule sets you want to apply, and your registrants — whether registered in Desktop, Web, or Public views — see confirmation that their fees include the required VAT taxes.

**VAT Rules**

**BELGIUM**  
GB

VAT Rule Code

Description

Rules	VAT Registered	Company Contact	Contact Country	VAT Chargeable	
	<input type="text" value="n/a"/>	<input type="text" value="Yes"/>	<input type="text" value="Other EU country"/>	<input type="text" value="No"/>	<input type="button" value="Add"/>
	<input type="text" value="n/a"/>	<input type="text" value="n/a"/>	<input type="text" value="Outside of the EU"/>	<input type="text" value="No"/>	<input type="button" value="Delete"/>
			<input type="text" value="n/a"/>		<input type="button" value="Up"/>
			<input type="text" value="Same as place of supplier"/>		<input type="button" value="Down"/>
			<input type="text" value="Other EU country"/>		
			<input type="text" value="Outside of the EU"/>		

Select **Events** > **Set up module, VAT Rules**



## New browsers and platforms supported

15.2.0 supports a wide array of newer browsers that your users may run to access your *iMIS* websites. *iMIS* iParts support Firefox 6 and Internet Explorer 8 and 9 (IE8 compatibility mode for non-iPart web views). In addition, *iMIS* iParts work with Chrome and Safari (for MacOS).



## Microsoft Framework 4.0

15.2.0 uses Microsoft Framework 4.0, which is the latest full release of ASP.NET technology. Its benefits include improvements to stability, performance, and usability.

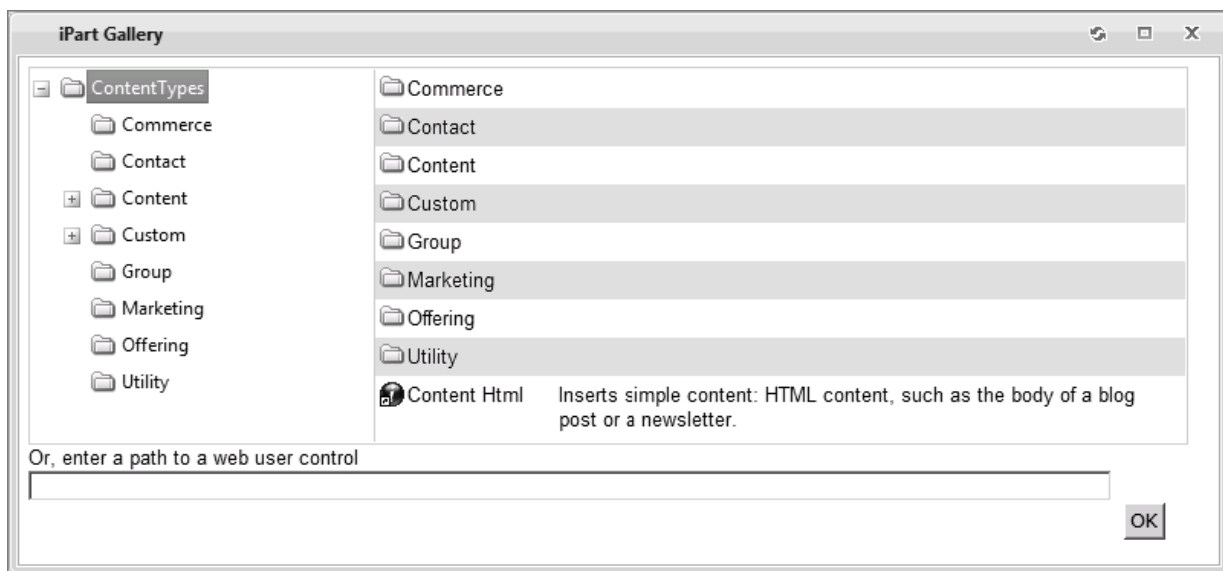
The new framework supports recovery from pages with malfunctioning iParts. For example, if someone accidentally deleted the content item for an iPart, the page can now load with a placeholder (“The iPart cannot be loaded”), which lets you edit the page to delete the offending iPart reference.

## SQL Server 2008 R2

15.2.0 supports Microsoft SQL Server and Express Edition 2008 SP2 and now 2008 R2 (both 32-bit and 64-bit). Note that 2008 R2 is *not* backwards compatible. SQL Server 2005 SP3 remains supported for upgrades only.

## iPart Gallery organizes content types

To support the large number of iParts that now install with *iMIS*, the iPart Gallery has a new folder organization that groups iParts into collections of similar features and functionality. Each folder opens a gallery on the right-hand pane, which lets you see the variety of iParts available in that collection.



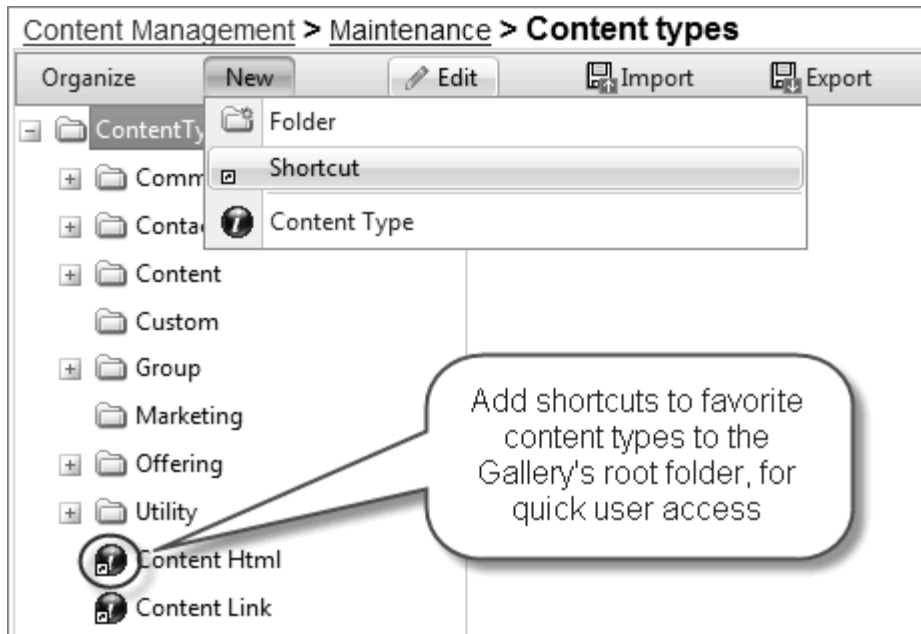
*Note:* To see the **Group** gallery, you need a COMMUNITIES license.

You see the iPart Gallery when you edit a content record and click **add content**. To manage the iPart Gallery, you can select **Content Management > Maintenance > Content types**.

Easy Gallery Maintenance

The Gallery has been integrated fully into the **Document System** itself, so that you can manage these items exactly as you do your other files: versioning, importing, exporting, moving, and deleting. In addition, folders in the Document System can be configured to have custom security (such as to limit a folder to one department) or to allow authorized users to create subfolders, so you can do these things to your iPart Gallery folders as well.

With this integration, it is now simple for *iMIS* developers to assign their new content types to appropriate folders in the iPart Gallery, to help them to be found and reused. To improve Gallery usability, the **Content Types** folder now lets you create shortcuts *exclusively* to other content types, so that you can quickly populate the top level of the Gallery with the content types that your users need most frequently, such as simple HTML, URL, and file types. You can also reduce user confusion by adding shortcuts in additional folders where users might expect to find a given content type.



#### Document system shortcuts

The virtual linking ("shortcuts") in the Document System now has additional filtering to ensure that new shortcuts link to appropriate folders and content types only. When you select **New > Shortcut**, the Document System honors the restrictions on the current folder and allows you to browse and select only allowed items for the link.

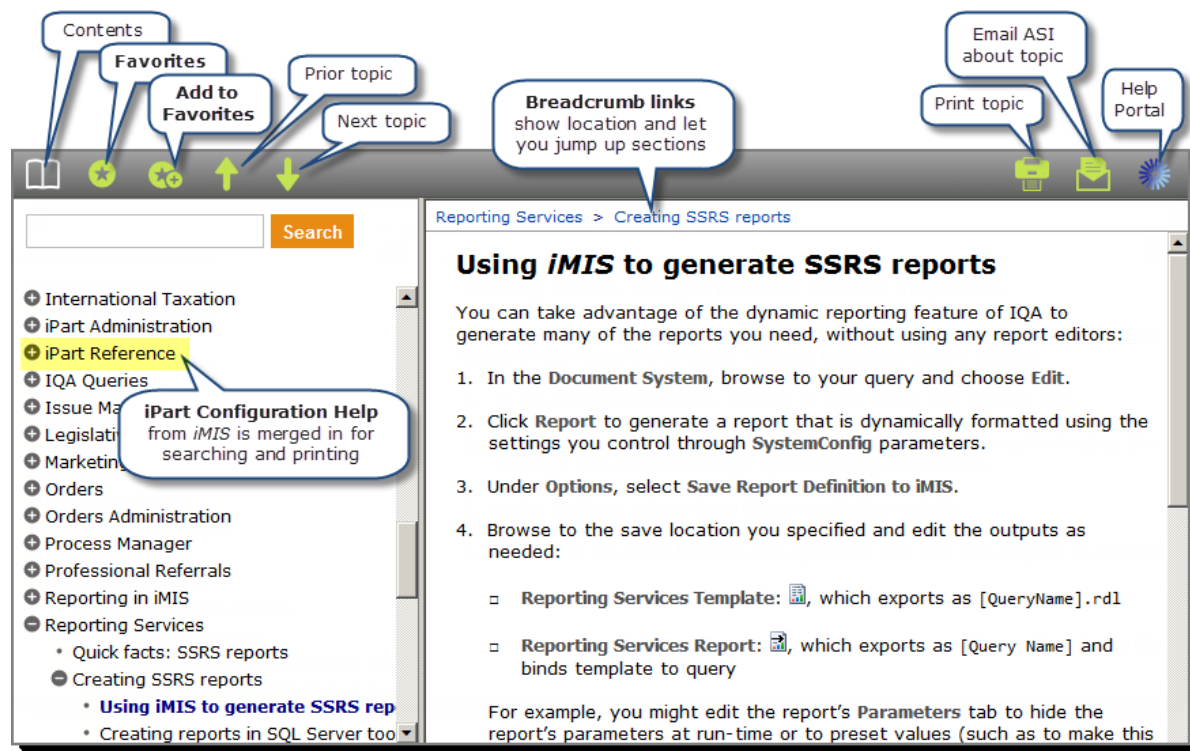
For example, when you are in the **Content Types** folder, you can only create shortcuts to other content type items therein, for the purpose of adding helpful shortcuts to users of your iPart Gallery. Rather than having to browse down from the top (root) of the Document System, you start within the **Content Types** folder, which contains the only allowed items you can link to.

#### **Multi-Instance Utility upgraded**

- To help you avoid installing to the wrong directory, the value for the **Install directory** now defaults a non-existent folder. The utility prompts you to specify a valid directory before proceeding.
- To help with troubleshooting, the display log now shows the port numbers and paths being set during the reconfiguration process.
- The utility determines which ports are free for use by *iMIS* Services.
- The utility configures the ASI SOA Host Service to run on IIS6.

## New Helpsite with favorites and breadcrumbs

15.2.0 includes a new Helpsite for all online and downloadable documentation. In addition to updated styling, the Helpsite includes options for **Favorites** and **Save to Favorites**, so that you can save and retrieve topics that are important to you. Above each topic is a live breadcrumb trail, showing where the topic resides in the table of contents; click any link in the trail to go to that higher-level topic. The new Helpsite also includes all of the content from the iPart Configuration Help topics that pop up from Help icons inside of *iMIS*, so that all of that configuration information is searchable and printable.



## Feature enhancements

Some of these *iMIS* enhancements may have been made available in the updates that preceded this release.

### Friendraising enhancements

The Friendraising interface gained several improvements to its ease of use and efficiency:

- From the new **Friendraising Importer** iPart, you can import Friendraising Export Files on demand from the Friendraising Administration Console.
- The Friendraising pages are now pre-built in *iMIS* Web view using content records, iParts, and navigation items. To go live, you only need to unhide the Friendraising navigation item from your Web view sitemap.
- From the **Friendraising Settings** iPart, you can now enter the *iMIS Address Usages* (see "Customer Setup - Address and Notes window") to be assigned to contact data from incoming Friendraising transactions.

**More:**

Friendraising

### ***Creating “guest-only” links***

A new **Site Designer** option lets you hide navigation items from authenticated users, so that you can create links that guests alone will see. You can use this option, for example, to add a **Create Account** link that appears only to unauthenticated users: after logging in, users will no longer see a link prompting them to create an account. To apply this guest-only behavior to a navigation item, open its **Options** section and enable **This navigation item only displays for unauthenticated users**.





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## Before You Begin

### 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.

---

**Upgrades:** 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.

**Caution!** 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.

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Minimum hardware (all)	<ul style="list-style-type: none"> <li>10/100 Mbps network connection between database server host and all appservers and <i>iMIS</i> Desktop clients</li> <li>2 GHz Intel Pentium 4 or compatible processor (64-bit processors must support Intel 64 or AMD64 architectures; some Intel Xeon server processors prior to 2007 may have issues running <i>iMIS</i> Desktop on 64-bit Windows Vista or 7)</li> <li>2 GB of RAM</li> <li>3.2 GB for a full/custom install; 1.8 MB for Desktop install/upgrade (InstallShield may under-report disk space needed)</li> <li>An additional 2 GB of disk space on the C: drive (for temp files); and when upgrading, an additional amount of C: drive disk space on the database server that totals twice the size of your database.</li> <li>Display with 1024x768 (XVGA) minimum resolution</li> </ul>
Operating systems	<ul style="list-style-type: none"> <li>Servers: Windows Server 2003 R2 SP2, 2008 SP2, and 2008 R2 SP1 (32-bit and 64-bit, Standard/Enterprise/Datacenter editions only)</li> <li><i>iMIS</i> Desktop: Windows Vista SP2 and 7 SP1 (32-bit and 64-bit), installed as and set to run as Administrator, with non-Aero theme (see note above for 64-bit Intel Xeon server processors)</li> </ul>
Databases	<ul style="list-style-type: none"> <li>Microsoft SQL Server and Express Edition 2012</li> <li>Microsoft SQL Server and Express Edition 2008 SP3 and 2008 R2 SP1 (32-bit and 64-bit) (<i>Note</i>: 2008 R2 is not backwards compatible)</li> <li>Microsoft SQL Server and Express Edition 2005 SP4 (<i>Note</i>: the shipped Demo DB is not supported on SQL Server 2005)</li> </ul>
Appservers	<ul style="list-style-type: none"> <li>Microsoft .NET Framework 4.0 (ASP.NET)</li> <li>Microsoft SQL Server 2005/2008/2012 Tools</li> <li>Microsoft Internet Information Services (IIS) 6, 7 or 7.5</li> <li>Microsoft Windows Indexing Service (see "<a href="#">Preparing all servers and workstations</a>")</li> </ul>
Systems running <i>iMIS</i> Desktop	<ul style="list-style-type: none"> <li>Microsoft .NET Framework 4.0 (ASP.NET)</li> <li>Microsoft Word 2007 SP3 and Word 2010, for Word integration</li> <li>Microsoft Excel 2007 SP3 and Excel 2010 for <i>iMIS</i> Analytics</li> <li>Adobe Reader 10.1, installed on all servers and clients to print <i>iMIS</i> reports</li> <li>(optional) Accumail Gold 10.00.01</li> <li>(optional) ExpoCAD 7.4</li> <li>Omnis 7 version 3.6.4 (included with install)</li> </ul>
Browsers	<ul style="list-style-type: none"> <li>Internet Explorer 8 (native) and 9 (native) for iParts; Internet Explorer 8 (compatibility mode) for all non-iPart .NET web applications; Internet Explorer 9 for <i>iMIS</i> Desktop</li> <li>Firefox (most recent stable version), for iParts, staff and member sites (version 15 as of 20 Sep 2012)</li> <li>Chrome (most recent stable version), for iParts (version 21 as of 20 Sep 2012)</li> <li>Mac iPad: Safari (most recent stable version), for iParts (version 6.0 as of 20 Sep 2012)</li> </ul>
Report writing	<ul style="list-style-type: none"> <li>Reporting Services: SQL Server 2005 Express Edition Toolkit, SQL Server 2008 Report Builder 2.0, SQL Server 2008 R2 Report Builder 3.0, or SQL Server 2012 Report Builder</li> <li>Crystal Reports: Crystal 9.0</li> </ul>

---

*Note:* Optional products, such as Analytics, may have additional requirements.

---

### ***ANSI settings required by iMIS***

As of 15.2, *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. See “ANSI Conversion Utility - ConvertTableToANSI” for details.

If you are creating your own tables, procedures, triggers, views, etc., 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
```

## DLL versioning in 15.2

As of 15.2, *Asi.dll* and other DLLs report different version numbers than the version reported in **System Setup > iMIS management**.

---

*Tip:* To verify DLL versioning, check only *AsiV10.dll*.

---

## Download product CD images

You can download the *iMIS* product CD image from the ASI Support site. The contents of the CD image are identical to the physical CD. In any procedure that calls for the product CD, you can browse to a folder that contains the extracted CD image.

### To download a product CD image

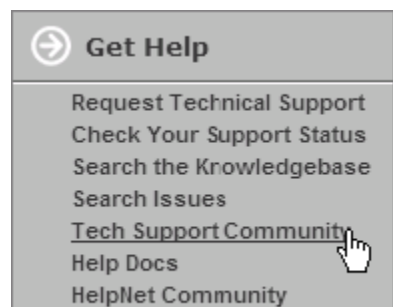
1. Log on to **Support** (<http://advsol.com/support>).
2. On the **Support** page, select **Product Releases**.
3. Under **Product Releases** at left, select **View All Releases**.
4. Under **Choose a Product**, select **iMIS**.
5. Select the most recent version of *iMIS* that is marked as a **Production Release** and download the associated self-extracting zip file (for example, *iMIS nn.n.n.nnn\_Product\_CD.exe*).
6. Select the most recent update to the release, if any, and download the zip file.
7. Double-click the downloaded files to extract the images to their default locations on the C: drive.

### To use CD images across the network

1. Copy the extracted CD image to a shared network location.
2. On the machine where you need to run the **setup.exe**, map a drive letter to the network location of the extracted CD image.
3. Browse to the installation program on that mapped drive.

## Review support policies

Go to **Support** (<http://advsol.com/support>) and log on to the **Tech Support Community**:



Open the **Document Archive** to view detailed support policies:



### ***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.

---

### ***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.

### **Review resolved and known issues**

Visit **Support** (<http://advsol.com/support>) to view real-time listings of software issues for the release.

#### **To view all Resolved or Known Issues**

1. Log in to the **Support** (<http://advsol.com/support>) page.
2. Select **Technical Support** (at left), and select **Search Issues**.
3. Set the **Search Type** to **Resolved Issues** (or **Known Issues**) and choose the version.

4. Select **Search**.

**View Resolved/Known Issues**  
(\* Required)

Search Type: ☒ Resolved Issues ☐ Known Issues

Search For:

\*Version:

Search Scope: ☒ View issues for selected version and higher

Product:

Module:

**Search**

## Planning your *iMIS* architecture

The server architecture of *iMIS* allows you to install all the components onto a single appserver, for simple client/server architecture, or spread the components across multiple appservers, 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

1. how many servers are needed
2. what will be hosted on each

The following terms and concepts will help you plan your *iMIS* architecture.

### ***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 you can define.

1. **Full** user licenses offer complete access to *iMIS* functionality, limited by the specific permissions defined in user records.
2. **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).
3. **Public** user licenses (which cost the least) offer very limited access to *iMIS* functionality in the Public view only, which is designed for self-service by members.

Three *iMIS* views

What users see depends on *how* they're licensed (Full, Casual, or Public) and *how* they're connecting (Desktop, Web, or Public):

1. **Administrative** views (**Desktop view**, **Administrative Console**) run from a workstation, local or remote

**Full** and **Casual** users can both use administrative views, although **Casual** users see far 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 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, etc.

## 2. *Staff* views (**Web view**, **Staff site**)

**Full** and **Casual** users both can browse to and access the staff views, 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

## 3. *Member* views (**Public view**, **Member site**)

The member views constitute what any user type sees when browsing to your organization's public site. 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.

## Choosing single or multiple appservers

At its heart, *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 it 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 two things:

- **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 vs. Custom installation

For a simple client-server configuration, just use the *iMIS* installer to perform a **Complete** installation on a single appserver. This results in one instance of each application on one appserver, 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 appservers, you need to perform a **Custom** installation on each appserver. During a **Custom** installation, you can specify which applications to install. On some appservers, you might install both applications; on other appservers, you might install only one.

#### Multiple appservers and instances

The *iMIS* architecture is flexible: you can install both applications onto the same application server (appserver), or you can install them on different appservers.

You can use the [Multi-Instance Utility](#) to install multiple instances of each application among multiple appservers. 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 appservers.

---

*Note:* Web farm architectures are not natively supported by *iMIS*. In a multi-appserver 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.

---

*Caution!* 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.

---

### Configuration Examples

The diagrams that follow show examples of *iMIS* configurations. Line styles indicate connection types:

- **Dotted lines** show low-bandwidth connections (such as VPN tunnels) from web clients
- **Solid lines** show high-bandwidth (10/100 Mbps) connections among server hosts and workstations using *iMIS* Desktop

When looking at these configurations, keep in mind that others are possible. For example, the appserver for the Public view could be placed inside the network firewall. Also, if you are installing *iMIS* Analytics, you might choose to put the data warehouse and analysis database on the same database server as your *iMIS* database, or you could put them on a separate one.

---

*Note:* These configuration suggestions are based on recent experiences with production systems of various sizes: they are guidelines only, not requirements.

---

## 1 Server: All-in-one

The 1-server configuration puts all the *iMIS* systems (except for clients) onto a single server. One box hosts web servers, application servers, and the database server. The size and performance of servers today is such that one robust server can handle the needs of many organizations.

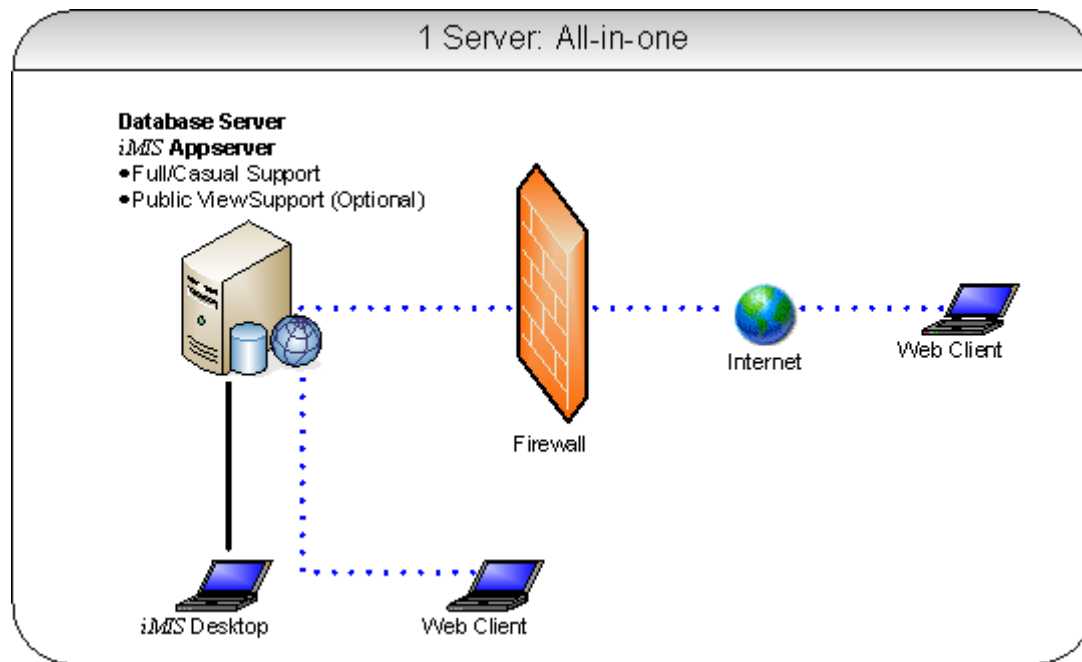
#### Benefits

- Easier maintenance and upkeep
- Lower hosting costs (only a single server)

#### Considerations

- No redundancy

- No way to protect users from spikes in system usage (but less of an issue with robust servers)



*Database server and iMIS appserver with support for all iMIS views on a single host*

Examples	Appserver	Database server
Small	<ul style="list-style-type: none"> <li>■ 4 GB of RAM</li> <li>■ At least a dual-core processor or equivalent</li> <li>■ 250 GB hard drive w/ 200 GB free</li> </ul>	<ul style="list-style-type: none"> <li>■ 4 GB of RAM</li> <li>■ At least a dual-core processor or equivalent</li> <li>■ 250 GB hard drive w/ 200 GB free</li> </ul>
Medium	<ul style="list-style-type: none"> <li>■ 6-8 GB of RAM</li> <li>■ 2.33 GHz Quad Core Xeon CPU, 1333MHz FSB</li> <li>■ 250 GB hard drive w/ 200 GB free</li> </ul>	<ul style="list-style-type: none"> <li>■ 6-8 GB of RAM</li> <li>■ 2.33 GHz Quad Core Xeon CPU, 1333MHz FSB</li> <li>■ 250 GB hard drive w/ 200 GB free</li> </ul>
Large	<ul style="list-style-type: none"> <li>■ 12-16 GB of RAM</li> <li>■ Dual 2.33 GHz Quad Core Xeon CPU, 1333MHz FSB</li> <li>■ 2 - 500 GB hard drive w/ 450 GB free</li> </ul>	<ul style="list-style-type: none"> <li>■ 12-16 GB of RAM</li> <li>■ Dual 2.33 GHz Quad Core Xeon CPU, 1333MHz FSB</li> <li>■ 2 - 500 GB hard drive w/ 450 GB free</li> </ul>

## 2 Servers: Database/Appserver, Public webserver

The 2-server configuration helps to separate the internal *iMIS* system from the public site: the public web server communicates with the *iMIS* database as needed, but the *iMIS* database stays separated from the Internet. Performance improves because spikes in traffic to the public site do not necessarily cause spikes to the *iMIS* database server. (The database itself will see the same traffic, but its server won't bog down with web requests.) However, internal users can still see performance issues when *iMIS* is under load, such as when running large reports or slow queries.

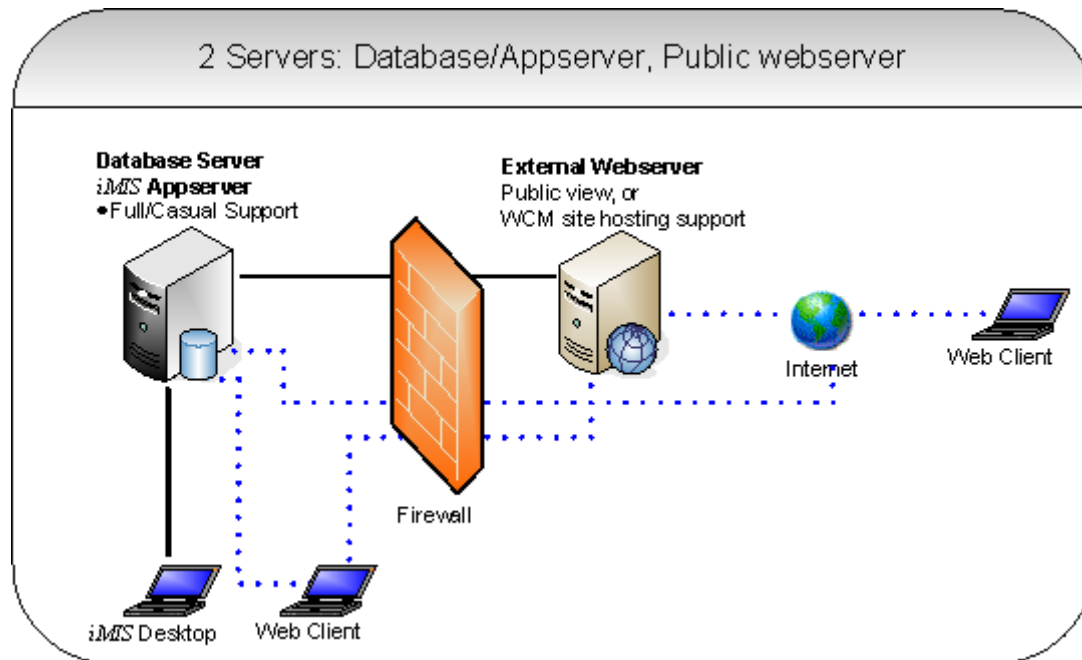
### Benefits

- Separates Public site from *iMIS* database
- Better performance

### Considerations

- No redundancy

- Given heavy internal use, performance can still suffer
- No way to protect users from spikes in system usage (but less of an issue with robust servers)



*Database server and iMIS appserver with support for Desktop and web clients on one host, and an iMIS appserver with support only for the Public view on a second host*

Examples	Appserver	Database server
Small	<ul style="list-style-type: none"> <li>■ 4 GB of RAM</li> <li>■ 2.8 GHz Dual Core Pentium or Celeron CPU</li> <li>■ 250 GB hard drive w/ 200 GB free</li> </ul>	<ul style="list-style-type: none"> <li>■ 4 GB of RAM</li> <li>■ 2.8 GHz Dual Core Pentium or Celeron CPU</li> <li>■ 250 GB hard drive w/ 200 GB free</li> </ul>
Medium	<ul style="list-style-type: none"> <li>■ 4 GB of RAM</li> <li>■ 2.8 GHz Dual Core Pentium or Celeron CPU</li> <li>■ 250 GB hard drive w/ 200 GB free</li> </ul>	<ul style="list-style-type: none"> <li>■ 6-8 GB of RAM</li> <li>■ 2.33 GHz Quad Core Xeon CPU, 1333MHz FSB</li> <li>■ 250 GB hard drive w/ 200 GB free</li> </ul>
Large	<ul style="list-style-type: none"> <li>■ 4 GB of RAM</li> <li>■ 2.8 GHz Dual Core Pentium or Celeron CPU</li> <li>■ 250 GB hard drive w/ 200 GB free</li> </ul>	<ul style="list-style-type: none"> <li>■ 12-16 GB of RAM</li> <li>■ Dual 2.33 GHz Quad Core Xeon CPU, 1333MHz FSB</li> <li>■ 2 - 500 GB hard drive w/ 450 GB free</li> </ul>

### 3 Servers: Database, Appserver, Public webserver

The 3-server configuration provides good separation between the servers to minimize spikes in performance: one server each is dedicated to the database, the iMIS application, and the Public web site, which communicates only with the iMIS database. This way, a performance issue on one server stays isolated to that server function. However, the added cost for additional servers and maintenance generally makes sense only for larger implementations.

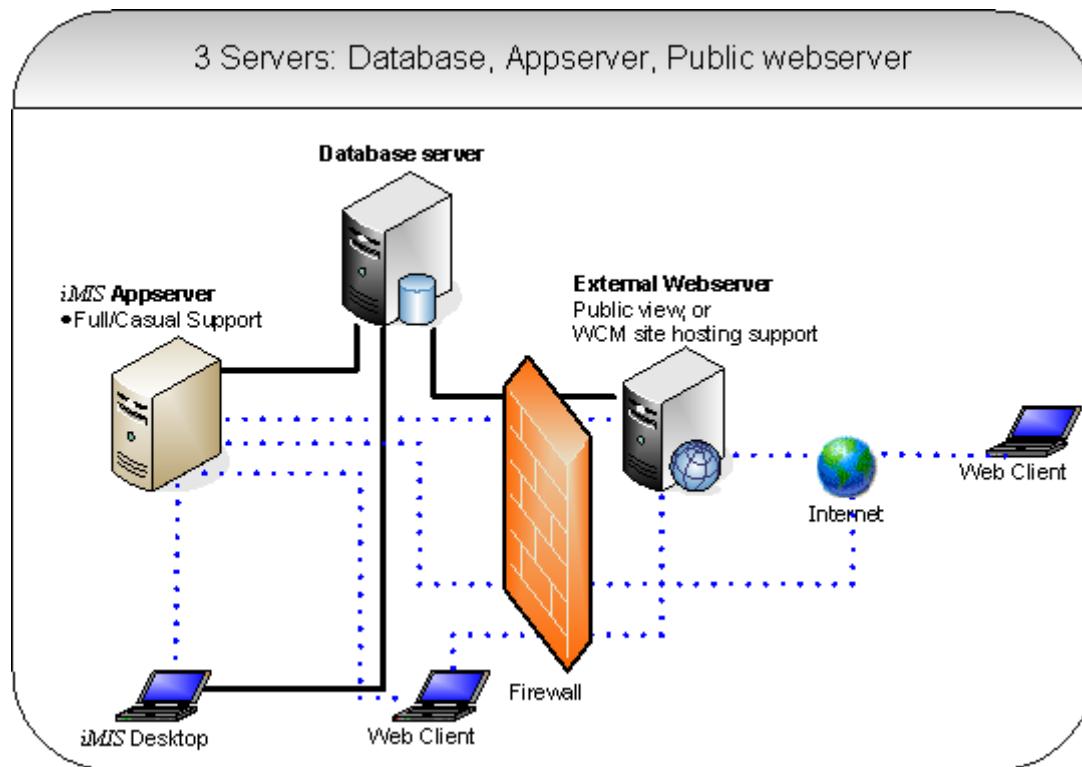
#### Benefits

- Even and manageable performance
- Good redundancy

#### Considerations



- No failover (such as no multiple Public sites or *iMIS* databases)



*Database server on one host, a iMIS appserver with support for Desktop and web clients on a 2nd host, and a iMIS appserver with support only for the Public view on a 3rd host*

Examples	Appserver	Database server
Medium	<ul style="list-style-type: none"> <li>■ 4 GB of RAM</li> <li>■ 2.8 GHz Dual Core Pentium or Celeron CPU</li> <li>■ 250 GB hard drive w/ 200 GB free</li> </ul>	<ul style="list-style-type: none"> <li>■ 6-8 GB of RAM</li> <li>■ 2.33 GHz Quad Core Xeon CPU, 1333MHz FSB</li> <li>■ 250 GB hard drive w/ 200 GB free</li> </ul>
Large	<ul style="list-style-type: none"> <li>■ 4 GB of RAM</li> <li>■ 2.8 GHz Dual Core Pentium or Celeron CPU</li> <li>■ 250 GB hard drive w/ 200 GB free</li> </ul>	<ul style="list-style-type: none"> <li>■ 12-16 GB of RAM</li> <li>■ Dual 2.33 GHz Quad Core Xeon CPU, 1333MHz FSB</li> <li>■ 2 - 500 GB hard drive w/ 450 GB free</li> </ul>

## n Servers: Distributed Servers

When implementations target large numbers of users and heavy web traffic, such service requires high availability and redundancy, which requires increasing the number and balance of servers.

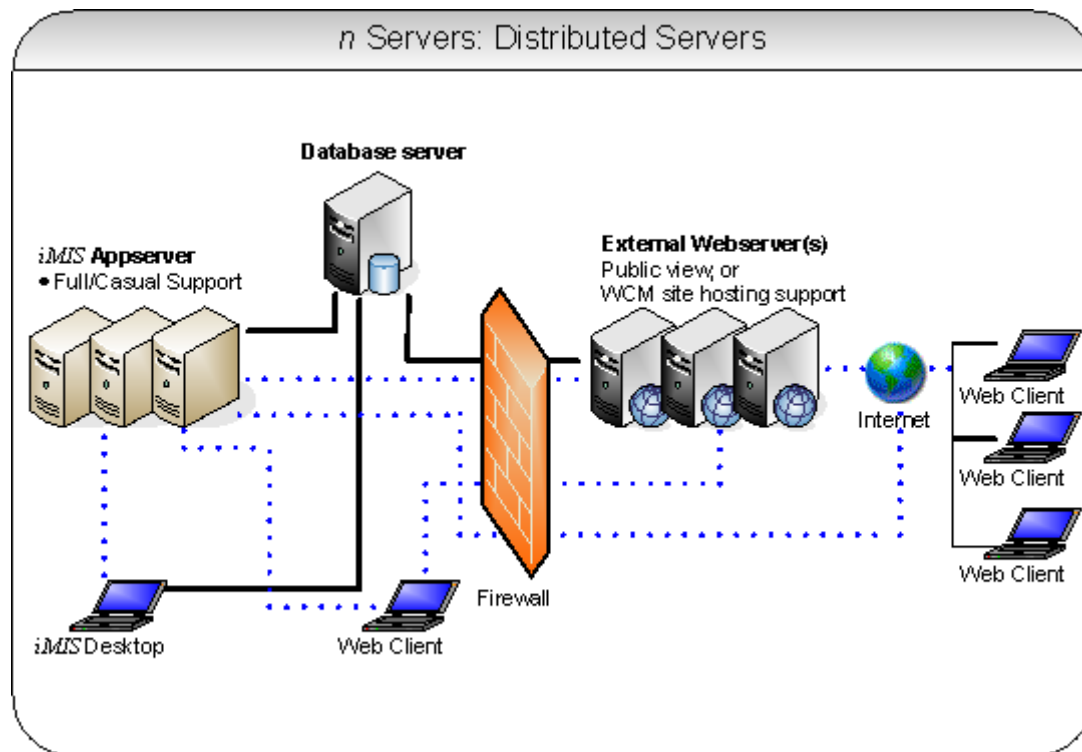
Given the significant cost for additional servers and their maintenance, n-server configurations best suit only the very largest implementations, which have strategic need for extreme redundancy and up time.

### Benefits

- High security
- High redundancy

### Considerations

- Costs the most, in hardware and personnel



Many iMIS appservers for manually distributing client-server load in a large organization

Example	Appserver	Database server
Large	<ul style="list-style-type: none"> <li>▪ 4 GB of RAM</li> <li>▪ 2.8 GHz Dual Core Pentium or Celeron CPU</li> <li>▪ 250 GB hard drive w/ 200 GB free</li> </ul>	<ul style="list-style-type: none"> <li>▪ 12-16 GB of RAM</li> <li>▪ Dual 2.33 GHz Quad Core Xeon CPU, 1333MHz FSB</li> <li>▪ 2 - 500 GB hard drive w/ 450 GB free</li> </ul>

## Best practices

### 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 appserver).
- 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 they have a least 10 Mbps speed, with a further burst possible, in case of sudden track spikes.
- *Tip:* You can have lower bandwidth between iMIS Desktop and iMIS appservers, because the only traffic between them is HTML. To improve bandwidth and speed up website performance, see [Enabling HTTP Compression - IIS 6.0](#) and [IIS 7.0](#).

### Servers

- To protect your investment, choose servers that you can upgrade (memory, processors, and storage).
- Add an Uninterruptible Power Supply (UPS) to servers, to smooth shut downs after power loss.
- Implement RAID. RAID 5 is best; 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.

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#### Cost cutting

- If you have less than 4 GB of memory, do not invest in the Enterprise edition of Windows Server.
- If you have a small implementation and can work within the size limitations, use Microsoft SQL Server Express Edition instead of Microsoft SQL Server.

---

## Installations and Upgrades

This is the general process for installing and upgrading *iMIS*:

### 1. [Preparing all servers and workstations](#)

After ensuring all computers meet the system requirements, you have updates, tests, and settings to apply to prepare your database servers, appservers, and workstations.

### 2. [Preparing to upgrade](#)

Upgrading requires you to prepare AR/Cash records by posting batches, back up customized business objects (which will be overwritten), and perform database upgrades, checks, backups, and tasks related to indexes and triggers.

### 3. [Installing and upgrading iMIS](#)

In a basic install/upgrade, you run **setup** on a single appserver, 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. For both types, 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 case-insensitive server (or newer).

---

## Preparing all servers and workstations

Generally, you need to walk through these procedures only once, when first setting up the servers and clients to be used in your implementation.

### To prepare database server hosts

1. Verify that each server to host an *iMIS* database meets all [system requirements](#).
2. (*new installs*) Verify that the SQL Server instance where the new *iMIS* database will be created is configured to use a SQL collation of sort order ID 52.

The SQL Server instance must *not* be a mixed-collation environment. When you install a new *iMIS* database, your instance must have a default SQL collation of SQL\_Latin1\_General\_CP1\_CI (sort order ID 52), which is the default for the EmptyDB and DemoDB provided with *iMIS*. If your SQL Server default is different, reinstall SQL Server with the correct collation before installing *iMIS*.

### To prepare application and web server hosts

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*Tip:* The installer warns you if it cannot enable or detect a required service. See [Troubleshooting services](#) for how *iMIS* needs services to be configured.

---

1. Verify that each server host meets all [system requirements](#).
2. *Windows 2003:* Install SP2, or the process will fail.
3. (*upgrades*) (Application servers only) Update your current installation of *iMIS* to required release levels and licensing: *iMIS* must be at 15.1.3 or higher.
4. 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.

#### To prepare workstations

1. Verify that each user workstation meets all [system requirements](#) for the type of client to be used.
2. (*iMIS Desktop*) Verify that a high-bandwidth (10/100) SQL connection can be made between workstations and the SQL Server instance hosting the *iMIS* database.

---

*Tip:* Avoid low-bandwidth connections to the database host (such as via VPN): the high-volume SQL traffic will slow performance for *iMIS Desktop* users. If you have remote staff who need Desktop, have them run it from a terminal server that is on the same network as the database host.

---

3. Optimize Internet Explorer settings for *iMIS*.
  - (*if running iMIS Desktop on Windows Server*) In **Manager Your Server** (2003) or **Server Manager** (2008), go to **Internet Explorer Enhanced Security Configuration (Configure IE ESC)** and disable both Administrators and Users. (Expect IE to warn you that this is disabled.)
  - In Internet Explorer, select **Tools > Internet Options**.
  - 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**.
  - On the **Security** tab, select **Trusted Sites**, and set the **Security Level** to **Low**.
  - With **Trusted Sites** still selected, click **Sites**, add the name of your *iMIS* application server host (<http://myserver>), disable **Require server verification (https:)** if not using SSL, and select **Close**.
  - On the **Advanced** tab, check **Disable script debugging (other)**, and select **OK**.
4. (Analytics) 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.

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*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.

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### Changing Windows 7 themes for iMIS Desktop

To run *iMIS Desktop* 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 *iMIS Desktop* and many other applications, so Windows 7 offers an easy way to restore compatibility:

1. From your **Start** menu, select the *iMIS* program icon.
2. Right-click and select **Properties**.
3. On the **Compatibility** tab, enable **Disable desktop composition**.
4. If other *iMIS* users share this system, select **Change settings for all users**.

5. Select **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.

## Preparing to upgrade

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; therefore, follow all processes carefully.

---

*Tip:* For best results with earlier versions of *iMIS*, complete the upgrade to 15.1.3 before proceeding.

---

### Upgrade impacts

In addition to these cautions, review the [New Features](#) to evaluate the impact on your existing implementation.

- **Caution!** 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.
- As of 15.2.10, all **Actions** and **Constraints** are removed from BOD, to support optimal performance and scalability. 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.

### To prepare 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 recreate it.
2. To prevent an upgrade error, ensure that all custom iParts contain a description by running this 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 two scripts:

- **No ShipTo ID** - A registration record without an ST\_ID occurs when entering new contact records through the Events registration **Attendee** tab in *iMIS* Desktop 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 1-3):

```
ftp://ftp.advsol.com/download/Restricted/UpdateMeetingOrdersWithNoSTID.sql
```

Although this 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** - The 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 upgrading on Windows Server 2003, apply the hot fix [KB925336](#), or else the upgrade will fail.

5. 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 [Database Engine Tuning Advisor index statistics](#).
6. In *iMIS*, post any open A/R Cash batches by hand. (If you do not, the upgrade might duplicate DUES activities.)
7. 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 BOD are automatically upgraded, but *standard* ones are overwritten.

---

8. Itemize any other customizations and locate their upgrade instructions.
9. (*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.

---

10. In your SQL Server management environment, do these 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 DB log has sufficient size/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 it from, and change back the setting 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, because 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, so be sure that you are customizing the new SQL rather than overwriting with old code, which could break *iMIS* functionality.
  - Verify that all custom triggers and stored procedures in your *iMIS* database use only *ANSI-standard join clauses* (see "[Upgrade error for non-ANSI join operators](#)").
  - If you have custom views, *refresh their metadata* (see "[Refreshing metadata for custom views](#)").
11. Back up your database.
  12. *Large databases:* Check that you have ample 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.

---

*Tip:* 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" in Database Utilities.

---

13. Verify that the backup can be restored.

---

*Tip:* If the upgrade process fails for any reason, you fix can whatever caused the failure, restart the upgrade, and it will pick up where it left off.

---

14. 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 them, to avoid database errors when upgrading *iMIS*. Views are created with schema information (column data types and sizes) as it is 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.

1. Follow the *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. Therefore, run the script repeatedly until no errors remain.
  - ❑ If you've 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 may involve
  - ❑ renaming a column in your view definition
  - ❑ dropping a column altogether
  - ❑ getting the data from a new or different table
  - ❑ dropping an obsolete view
  - ❑ republishing the associated Business Object in BOD, 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.

### **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 them to be deleted before upgrading. **DB Upgrader** for 15.2.1 and higher drops them for you.

---

*Note:* After upgrading *iMIS*, you can re-add these indexes using the Database Tuning Advisor. However, *iMIS* gained many indexing improvements, so test performance of your upgraded system to determine whether you still need them.

---

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%';
```

### **Accounts for database access**

The *iMIS* installer needs a sysadmin (System Administrator) account and password on your SQL Server because it 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*, these are the database permissions that you need:

1. **Attach database** (sysadmin): To attach *iMIS* to a new database, the installer needs a sysadmin account. You can use your **sa** account for this.
2. **Use database** (db\_owner): To authenticate users to access your *iMIS* database instance, you just need a db\_owner account.

If you are upgrading an existing *iMIS* database, you do not need a sysadmin account because the database is attached already.

Do I have to expose my **sa** 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 completes, you may delete the temporary sysadmin account as long as you supplied a separate login for *iMIS* to run under.

Follow the steps below to use a temporary sysadmin account in place of your **sa** account:

#### To create a temporary sa account

For optimal security, create a temporary sysadmin account to use during installation.

1. Open **Microsoft SQL Server Management Tools**.
2. Using the **sa** login, connect the service that will host your *iMIS* database.
3. Go to **Service > Security**, right-click and select **New > Login**.
4. Enter a **Login** name (example: sa\_temp).
5. Select **SQL Server Authentication**.
6. Enter and confirm a password.

---

*Caution!* Special characters in the password can disrupt command-line processing, so use only alphanumeric characters and **! # @**, with no spaces. You may use hyphens and underscores after the first character, but avoid all other punctuation and symbols.

---

7. Deselect **Enforce password policy**.
8. On the **Server Roles** tab, select **sysadmin**.
9. Select **OK**.
10. Disconnect from the SQL service and verify that you can log into the service using the new login.
11. Only after installation is finished and verified, return to **Microsoft SQL Server Management Tools** and delete the temporary account.

#### To create a SQL account for *iMIS* to run under

For optimal security, create a separate account for *iMIS* to use to access to your database.

1. Open **Microsoft SQL Server Management Tools**.
2. Using the **sa** login, connect the service that will host your *iMIS* database.
3. Go to **Service > Security**, right-click and select **New > Login**.
4. Enter a **Login** name (example: imis\_db).
5. Select **SQL Server Authentication**.
6. Enter and confirm a password.



---

**Caution!** Special characters in the password can disrupt command-line processing, so use only alphanumeric characters and ! # @, with no spaces. You may use hyphens and underscores after the first character, but avoid all other punctuation and symbols.

---

7. Deselect **Enforce password policy**.
8. Select **OK**.
9. Disconnect from the SQL service and verify that you can log into the service using the new login.

## Installing and upgrading iMIS

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.

1. Finish all tasks in [Preparing all servers and workstations](#) and review the [System requirements](#).
2. (*upgrades*) Finish all tasks in [Preparing to upgrade](#).
3. (*upgrades*) Any iMIS Desktop View 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 the navigation item and recreate it.
4. (*upgrades*) Have all users log out of iMIS.
5. (*upgrades*) 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
6. (*upgrades*) If you have **Analytics** installed, remove it to avoid triggering reinstallation and reconfiguration of a new analytics database and analysis server:
  - ☐ Back up your Analytics files, such as  
move "C:\Program Files\ASI\iMIS\Analytics" "C:\Program Files\ASI\iMIS\Analytics.bak"
  - ☐ Select **Control Panel > Programs and Features**.
  - ☐ Open (double-click) iMIS to access the installer options.
  - ☐ Select **Modify**, expand **Optional Components**, and deselect **iMIS Analytics**.
  - ☐ Select **Next** as needed and **Finish**, then proceed with the upgrade.
7. On your application server host, temporarily disable tools and settings that might interfere with installation.
  - ☐ Disable anti-virus software.
  - ☐ Turn off UAC (User Account Control) settings:
    - From your computer's **Control Panel**, select **User Accounts**.
    - Locate the **User Account Settings** and turn the setting off or move the slide bar to **Never notify** and click **OK**.
8. Run the product **setup.exe**.

9. **Welcome** page: Click **Next**.

10. **Select installation type** page: Pick the type and click **Next**.

**Complete** installs a single *iMIS* appserver, with these results:

- ☐ All core components are installed, but no optional applications
- ☐ The appserver supports all user classes and views (see "[Types of iMIS licenses and views](#)")
- ☐ All pre-configured installers are available for download from the appserver

**Custom** installs everything covered in **Complete** and lets you add items:

- ☐ multiple *iMIS* application servers, choosing the specific *iMIS* applications and optional components that you want on each host
- ☐ *iMIS* Analytics, even in a single appserver environment

---

*Tip:* The appserver 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* appserver they'll use.

---

11. **Select destination location** page: Click **Next** to accept the default installation path (recommended).

12. **Specify database connection** page: Enter the connection and click **Next**.

- ☐ In the **SQL Server Name** list, select a SQL Server instance or enter the name manually.
- ☐ Next, choose whether to **Create new database** or **Upgrade an existing database**. Changing this mode enables different fields.
- ☐ In **Database Name** (case-sensitive), enter the name of your *iMIS* database. Ensure that the name is valid for your SQL Server configuration.

---

*Caution!* The *iMIS* database name must *begin* with a letter. Do not use (local), and do not use special characters in the name.

---

- ☐ (*new databases*) For greatest security, enable the checkbox to **Use separate (sa) credentials when creating new database**. See [Accounts for database access](#).
  - 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 config file for enabling database access (db\_owner).
- ☐ (*upgrades*) Under **User Name**, enter the sysadmin login for the SQL Server instance that is hosting the *iMIS* database.
- ☐ In **Password**, specify the password for the account(s) you entered. If blank, the upgrade will fail.

---

*Caution!* Special characters in the password can disrupt command-line processing, so use only alphanumeric characters and ! # @, with no spaces. You may use hyphens and underscores after the first character, but avoid all other punctuation and symbols.

---

13. (*optional*) **Analytics**: Specify the connection information for the Analytics data warehouse and analysis database.

---

*Note:* The Integration Services packages used by Analytics require the database server host to have a default instance of SQL Server installed on it, which must be installed with SQL Server 2005 Integration Services (SSIS).

---

14. (*upgrades*) Review any warnings that appear and take the recommended action.

15. **Specify iMIS configuration page:** Enter any virtual roots, SMTP server, and other information, and click **Next**.

- In **iMIS application root**, select a root, which affects the final URL:
  - **Default website:** Sets *iMIS* as the default website for your domain, which will display whichever *iMIS* site you specify as being the default in **Content Management**.

---

*Caution!* This option overrides any other website that you previously set as the default.

---

- **Virtual root:** (required for multiple instances) Sets the root below which all of your *iMIS* sites will appear on your domain.
- In **Public website virtual root**, leave the default value of `iMISpublic` unless you have a need to change it. This value forms part of the final URL.
- In **SMTP server name**, specify the domain name of your SMTP server.

---

*Caution!* 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](#)").

---

- Write down the URLs shown for all virtual roots: you will need these later.
- Accept the **Publishing Server Code** default; however, if you later install *additional* publishing services, set them to *different* letters.

The *Publishing Server Code* associates the physical publishing service (running on a webserver) with the specific Publish Server record in the database that configures it; choose 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 change either the install directory or the publishing service code.
- Accept the **Indexing Catalog Name** default, unless you need to store CM search metadata in an existing Index Server catalog (such as to consolidate searching across CM and non-WCM sites).

16. **iMIS Desktop Advanced Install Options:** As needed, change what users see and do when they install *iMIS* Desktop:

- Force users to install *iMIS* Desktop 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 through **Control Panel > Add or Remove Programs**.

17. **Specify ASI license information:** Enter the information per your agreement, and click **Next**.

If you are upgrading from a previous release of *iMIS*, the current license details are displayed. If you have purchased additional product keys with this release, add the additional license keys here before continuing.

---

*(upgrades) Caution!* Ensure that a CASUAL license key is present before continuing, or essential business objects will not be created and will require subsequent repair.

---

18. **Review installation settings:** Verify the settings and click **Next**. The wizard displays setup status as it copies files.

19. *(upgrades)* **iMIS DB Upgrader** begins automatically upgrading your database, and it closes on completion.

20. **Omnis Serialization Details:** Enter your information from your licensing agreement (the serial number is on the yellow card) and click **OK**.

21. **InstallShield Wizard Complete:** Review all messages that are displayed on the completion page, take actions as needed, and click **Finish**.

22. (*upgrades*) **iMIS Database Upgrader**: Review the upgrade logs to confirm database upgrade success and any additional post-upgrade needs. Click **View Logs** and 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, so you need to fix the data and upgrade again:

- ❑ 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 this:

```
= iMIS x.x.x.x to iMIS x.x.x.x Database Upgrade Driver Script =
```

- ❑ Fix the data in the current version of the database (it will upgrade from where it stopped)
- ❑ Restart the upgrade: in **iMIS Database Upgrader**, click **Begin Upgrade**.

23. (*upgrades*) Manually re-create any full-text indexes that you dropped (see "[Preparing all servers and workstations](#)").

24. Reboot the server to ensure that logon handling is properly initialized.

Failure to initialize might result in user passwords being openly displayed (unmasked) during log on.

## 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*).

---

**Caution!** Be sure to change the default MANAGER password before going live! In *iMIS*, go to **System Setup > Security Administration > Users**, find and select MANAGER with the **Users** query, and edit the **User Credentials**.

---

1. Test the administrative view:

- ❑ On the appserver, choose **Start > All Programs > ASI > iMIS > iMIS Desktop**.
- ❑ Test that you can log on as MANAGER.
- ❑ Verify that the *iMIS Home* page appears, which means 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 appserver, browse to your staff view, such as: `http://[appserver]/iMIS/admin`
- ❑ Verify that the *iMIS Home* page appears, which means that the connections are working.
- ❑ Test that you can log on as MANAGER.

3. Test the public view:

- ❑ On the appserver, browse to your public view, such as: `http://[appserver]/imispublic`
- ❑ Verify that the public welcome page appears, which means that the connections are working.
- ❑ Test that you can log on as MANAGER.

4. Test the installers:

- On the appserver, browse to your **InstallMe** page. The path to this page varies depending on whether or not the **Default Website** or **Virtual Website** option is selected during the installation:
  - If the **Virtual Website** option is selected: `http://[appserver]/[VirtualRoot]/installme.aspx`
  - If the **Default Website** option is selected: `http://[appserver]/admin/installme.aspx`
- Verify that the **iMIS Pre-configured Installers** page appears, which means that the connections are working.

## Completing an upgrade

Perform the post-upgrade checks that follow, and upgrade your existing sites and iParts as needed.

---

*Upgrade note 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 options in AR/Cash.*

---

### Post-upgrade checks

- Ensure that *iMIS* views are running on port **80**.
- Change the database recovery model back to what it was before the upgrade.
- Check that DB Maintenance is at the same or *higher* version as your installed *iMIS*.
- Address errors in your upgrade log:
  - If any of your business objects show errors, edit and republish them, which will upgrade them.
  - If any Public user records could not be migrated because their logons duplicated those of Full or Casual users, bring in these records manually.
  - If any records appear as "Disabled", they are orphaned Public user records that a staff member will need to re-enable before these users can log into the Public view.
- Run and verify your upgraded objects (queries, business objects, reports) to ensure their data sources are found.
- Check the security settings for your queries. During installation or upgrade, all queries are reset to "Authenticated Users Full Control". This prevents anyone who is not authenticated from accessing or running queries.
- If existing passwords will not meet the default requirements (minimum 6 characters, 1 digit), change the defaults (by editing the **web.config** file) before going live.
- (*Analytics*) To preserve the historical data in your Analytics data warehouse, use your SQL Server tools to migrate your data warehouse to the SQL Server 2005 instance that you specified.
- For new iParts to appear correctly on your upgraded site, look for and remove IE8 compatibility tags (`<meta http-equiv="X-UA-Compatible" content="IE=EmulateIE7" />`), which may interfere.

- In version 15.2.5, the **Item Detail**, **Event Detail**, and **Gift Detail** navigation items were removed from the sitemaps of the sample sites. These were previously used to determine which content record to display when users clicked search result links for products, events, and gifts. URL shortcuts are now used instead. If you updated any of your sites to point these navigation items to custom content records, then you will need to update the new URL shortcuts from **Site designer > Manage shortcuts**. If you want all of your sites to point to the same set of content records, edit the **All Sites** shortcuts **EventDetail**, **GiftDetail**, and **ItemDetail** to point to the content records you prefer. If you only want one site (or a subset of sites) to use your custom search result content records, click **Add**, select the site, and create new **EventDetail**, **GiftDetail**, and **ItemDetail** shortcuts for the content records.

## Upgrading existing sites

This release involves vast changes to website content, iParts, and structures. Be aware that any existing site that you upgrade may need adjusting from the impact of these changes.

See *Upgrading Existing Websites* for complete guidance on updates you might need to make.

## Updating sites that have page errors

Some ETP iParts were renamed or removed from the iPart Gallery, and this affects all content records on which you placed these iParts. Be sure to walk your site so that you can discover and address any page errors arising from upgrades to content and iParts:

1. Navigate through your upgraded WCM site and note any pages that show errors.
2. From **Content designer > Manage content**, delete the problematic content records.
3. Recreate the content record using the renamed iPart or another iPart, as appropriate.
4. From **Site designer > Manage sitemaps**, select your site and **Edit** the affected navigation item to point to the new content record.
5. **Save** and **Publish** your changes.

## Upgrading iParts

Version 15.2 optimized and improved the APIs that support iParts; therefore, you need to modify any iParts you developed for 15.1 to have them work with these API changes.

1. In your iPart project, remove references to **Asi.Web.iParts.Common.Utilities** and **Asi.Web.iParts.Common.WebControls**. 15.2 deprecated these assemblies and moved their functionality.
2. In your iPart code, remove any **'using'** statements that reference the above namespaces.
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 > Asi.Web**
  - Namespace change: **Asi.Web.iParts.Common.WebControls > Asi.Web.UI.WebControls**

For example, the line:

```
<%@ Register TagPrefix="ipartCommon" Assembly="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 **AppContext.CurrentIdentity.ContactMaster** with **SecurityHelper.LoggedInMisId**.

---

*Tip:* When you only need to check for a logged in user, use **SecurityHelper.IsAuthenticatedUser**.

---

5. 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 below. *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)**.  
*Recommended:* Use the SOA data access library in place of the iBO library when possible.
    - **Helper.SetCurrentContactKey**
    - **Helper.SetSelectedImisId**

---

## Global Configuration

Both *iMIS* and *iMISpublic* need global configuration before being rolled out for general use; you can also customize fonts, colors, and report layout defaults and such at this time. You must also assign users to classes (based on your licensing agreement) and set permissions.

---

*Note:* This section describes how to perform *global* configuration only; to configure specific features and areas, refer to the reference *guide* for each.

---

After you finish installing, complete configuration per your situation:

**New installations:** Prepare *iMIS* (see "[Choosing single or multiple appservers](#)") for initial use:

- Defining the date/time format for iMIS
- [Setting up organization codes](#)
- [Modifying references to field names](#)

**All installs/upgrades:**

- [Loading tab files to update zip codes](#)
- Changing the default layout for SSRS reports, for IQA-generated reports
- [Defining user records and allocating licenses](#)
- [Setting up the iMIS SOA web service](#)

**Public view:** Prepare the public-facing website:

- Verify license keys and Web component setup (Public view) options
- If on a separate appserver: [Connecting iMISpublic from a separate appserver](#)
- [Changing fonts and colors for web pages using CSS](#)

#### Optional products:

- Analytics Implementation

## Configuring iMIS

In all new *iMIS* installations, complete the following procedures to ensure that the *iMIS* is ready for use.

For details about global configuration not covered here, see these and other *System Setup* topics:

- Defining the date/time format for iMIS
- Changing the font table
- Support for foreign language characters

For details about customizing your reports, see Reporting Services topics:

- Customizing SSRS reports
- Changing the default layout for SSRS reports

## 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 on. You define your various **Org Codes** and their related information in the **Organization Names** window.

### To set up organization codes

1. Log on to *iMIS* Desktop with the MANAGER logon.
2. Choose **File > System Setup, Organization Names**.
3. Click **New** and add your organization name and related details:
  - In **Org**, enter a code for the organization.
  - If this org code is for your main organization headquarters, select the **Default Organization** checkbox.
  - In **Name**, 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 BMP or JPEG. Optimal image size is 130 by 125 pixels.
  - (optional) In **Letterhead like Single Line Address**, 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 **Registration Number**, 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.

4. Click **Save**.

---

*Note:* Restart (exit and reopen) *iMIS* Desktop to see and use the new **Org Code**. Others logged in with *iMIS* Desktop will also not see the new **Org Code** until they restart.

---

### **Loading tab files to update zip codes**

With each new release of *iMIS*, ASI creates a set of "tab files" (tab-delimited files) and posts them along with a command line DTS utility for loading them into your *iMIS* database. Loading the latest tab files into your *iMIS* database ensures that your Zip\_Code table has the latest USA zip code information available at the time of release.

#### **To load tab files**

1. Configure **Customers** *before* loading the tab files.
  - Open **Customers, Set up module > General, Address and Notes**.
  - Specify the **Zip Options**.
2. From the **Downloads** area of the **Support** site (<http://advsol.com/support>), locate and download the following files:
  - The command line DTS utility for loading the latest set of tab files
  - The latest set of tab files
3. Follow the instructions on the Support site and in the downloaded files for running the DTS package.

### **Modifying references to field names**

There are several places in *iMIS* to enter field names (*for example*, **Customers, Set up module > General, Advanced, Name/Address FindList Fields**). Failing to propagate field name changes across *all* locations will result in errors.

---

*Caution!* Since these field names are defined during module-level setup, warn all staff who will be configuring *iMIS* against changing field names without notifying you.

---

#### **To synchronize field name references**

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

## Defining user records and allocating licenses

For details on how to create records, see *Creating iMIS user records* in the *Security Administration* section of *System Setup*.

### Allocating types of licenses

The proportion of licensed **Full** and **Casual** users is determined by the **Users Allowed** field and the **CASUALnn** license keyword entered into the **Products** field. The **CASUALnn** 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 **CASUALnn** 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.

---

*Tip:* 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 them and creating work for yourself to fix any failed user record definitions.

---

### 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*.

### 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/Casual** users than allowed by your license; if you exceed your count, keep those users disabled or set them to **Public**.)

### Password length

By default, passwords must contain at least 6 characters. If you know existing passwords will fail these default requirements, change the default password complexity requirements by editing the *iMIS web.config* file on the *iMIS* application server. 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 *Public view* (see "[Types of iMIS licenses and views](#)") of *iMIS* can register themselves, which automatically

1. creates a contact record of **The default Customer Type...** defined in **System Setup > Set up web components > Quick setup**,
2. creates an associated user record and authentication record for the contact record
3. assigns that user record to the **Public** user class

## Configuring iMISpublic (Public view)

Before rolling out iMISpublic (the *Public view* of *iMIS*), you need to connect it to iMIS (if it's on a separate appserver), verify and customize the settings in all of the web components windows, and make any font/color changes needed.

## Connecting iMISpublic from a separate appserver

If you did a **Custom** install and put any instances of *iMISpublic* (see "[Choosing single or multiple appservers](#)") on different appservers from iMIS, you need to edit their **web.config** files (each instance has its own) to point to iMIS. This is needed to ensure proper logon handling. You also need to open ports through your firewall, if one stands between appservers.

### To specify an iMIS instance for logon handling

1. Open the **web.config** file for editing.

Default location: **C:\Program Files\ASI\iMIS\iMIS\_public**

2. Locate the **<appSettings>** element.
3. Within the **<appSettings>** element, locate the **ImisWebServerUrl** key.

```
<add key="ImisWebServerUrl" value="http://appserver/iMIS" />
```

4. Modify the **value** attribute to ensure that it points to a valid URL for an instance of the iMIS application that uses the *same* iMIS database as this instance of the iMISpublic application.

---

**Caution!** If you have multiple *iMIS* databases (such as test and production), be careful to specify the location of an iMIS application that uses the *same* database as this instance of the iMISpublic application. This is critical because all user records are stored in the *iMIS* database.

---

### To open communication between appservers

1. If a firewall stands between two appservers, configure it to allow traffic between them through port 80 (HTTP), port 443 (HTTPS), and 1433 (SQL default).
2. Test that the appserver on which iMISpublic resides can communicate with the designated appserver for iMIS and the *iMIS* database server.

### To tunnel communication

If you do not want to open port 80 (HTTP), port 443 (HTTPS), and 1433 (SQL default) through your firewall, you can have the remote iMISpublic appserver use a VPN tunnel for network connections to the appserver for iMIS and the database server.

## Licensing and setting up web components

Before rolling out your public site, verify and customize the settings in all of the web components windows.

### To set up the Public view

1. Log into *iMIS* as **MANAGER**.
2. From **File > System Setup**, ensure that all of the following license keys are included, which are required for the Public view to appear and work properly:

```
MEMBERSHIP, MEETINGS, ORDER, DUES, WSERIES, WMEET, W_ORDERS, EDUES
```

See *Modifying license configuration in System Setup* for details.

3. From **iMIS System Setup**, select each of the following links and verify the configuration settings. See *System Setup* for details.
  - ☐ System Setup: Set up web components - general/global settings
  - ☐ System Setup: Set up customer web components - **Directory** and **My Account** areas
  - ☐ System Setup: Set up events web components - **Store** area and online payments
  - ☐ System Setup: Set up commerce web components - **Events** area
4. Click **Save** after changing values on any setup window.

## Changing fonts and colors for web pages using CSS

You can modify CSS files to change the themes (fonts, colors, layout) for *iMIS* pages.

---

*Note:* Customize the Public view's theme to serve your organization, but avoid deeply altering the Full/Desktop theme, as those complex interfaces might prove hard to maintain across releases.

---

### To change the styles for a view

1. Locate the CSS files for the view you need to change. Default locations:
  - **iMISPublic:** C:\Program Files\ASI\iMIS\iMIS\_public\App\_Themes\iMIS
  - **WCM sites:** C:\Program Files\ASI\iMIS\net\App\_Themes\[SiteName]
  - **Desktop/Full:** C:\Program Files\ASI\iMIS\net\App\_Themes\BlueWave
2. Make copies of the originals, to help you recover from changes that do not display well.
3. Store copies of your custom stylesheets, to help you reconcile changes after future upgrades.

---

*Tip:* You can learn more about the specific CSS file names, skins, and images by reading more on the *iMIS* Community site (<http://imiscommunity.com>).

---

## Opening the Directory to anonymous access

By default, no unauthenticated site visitor who browses the Public view can see and use the directory. If this conflicts with your business needs, you can expose this information using .NET security: you can remove the authorization code that denies anonymous users all access to the **directory.aspx** page.

To open the directory to anonymous access, edit the **web.config** file found in *iMIS*\_Public core folder (default: C:\Program Files\ASI\iMIS\iMIS\_public\Core). From your <configuration> section, remove the lines beginning with <location> and ending with </location>:

```
<configuration>
<appSettings/>
<connectionStrings/>
<system.web>
<pages autoEventWireup="true">
</pages>
</system.web>
<location path="directory.aspx">
  <system.web>
    <authorization>
      <deny users="?"/>
    </authorization>
  </system.web>
</location>
</configuration>
```

## Preparing a new database for the Public view

You must have at least one User Defined Field created when creating a brand new database. Otherwise, users see an error when creating new accounts in the Public view.

1. From **Customers**, select **Set up module> General**.
2. Select **Additional Windows** and click **Define Tables**.

For details, see To create a custom table.

---

# Services Configuration

## Configuring test and demo appservers

### Optimizing timeouts

You can extend the timeout settings on an appserver to optimize it for testing and demo usage. Extending timeouts prevents problems that come from letting *iMIS* (Desktop or web) sit idle for long periods of time.

---

**Caution!** Do not set excessive timeouts (especially the session timeout) on *production* sites: idle sessions sitting for long periods of time can exhaust the server's memory.

---

#### To extend timeouts

1. In **IIS Manager**, expand the **Application Pools** node, right-click the **Default AppPool** and select **Properties**. (This refers to IIS6; see "[Optimizing timeouts on production appservers](#)" for IIS7.)

- **Performance** tab, under "Idle timeout": increase the value.
- **Recycling** tab, the first option: increase the value.

2. Open the **web.config** file for each *iMIS* site:

- Find the following setting and change the **timeout** value to any number of minutes up to the maximum 2147483647 (4085 years):

```
<sessionState mode="InProc" stateConnectionString="tcpip=127.0.0.1:42424"
  sqlConnectionString="data source=127.0.0.1;user id=sa;password=" cookieless="false"
  timeout="20" />
```

- To extend the idle "authentication ticket" timeout for non-Remember Me logins (which never time out), change the following value to any number of minutes up to the maximum 2147483647 (4085 years):

```
<add key="Authenticate.PersistLogin.Minutes" value="0" />
```

### Enabling concurrent Casual and Full access

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.

#### To separate authentication cookies

1. Create separate virtual directories for each view.
  - Copy the **\\ASI\\iMIS\\net** folder to another location (such as **\\ASI\\iMIS\\net2**)
  - In IIS Admin, create a new virtual directory (such as **iMISCasual**) and point it at the new folder.

2. Configure the sites to use different authentication cookie names.

- In each **web.config** file, locate the following section:

```
<authentication mode="Forms">
  <forms name="Login" loginUrl="~/AsiCommon/Controls/Shared/FormsAuthentication/Login.aspx"
    />
</authentication>
```

- Change the **name** attribute's value to be unique (such as **LoginFull**, **LoginCasual**, and **LoginPublic**) for each site, then save and close the files.

- Point your administrative view at one site (such as iMIS) and your browser at the other (such as iMISCasual), as needed.

## Optimizing timeouts on production appservers

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**:
  - 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 appserver 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.

---

*Caution!* Don't 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 IIS uses to launch .NET application pool processes). Therefore, make changes carefully, and test their impacts.

---

### To increase session-specific timeouts

If "Page Not Available" errors or logon- or password-related windows appear erroneously, increase the session-specific timeout in web.config files associated with iMIS.

1. On the appserver, open each iMIS-related **web.config** file for editing.
  - **iMIS** default location: C:\Program Files\ASI\iMIS\net
  - **iMISpublic** default location: C:\Program Files\ASI\iMIS\iMIS\_public
2. Locate the **<sessionState>** element and modify the **timeout** attribute.  
*Recommended:* For high traffic, set within 60 to 240 minutes; for low traffic, set within 720 to 1440 minutes.
3. Repeat this process for each iMIS appserver.

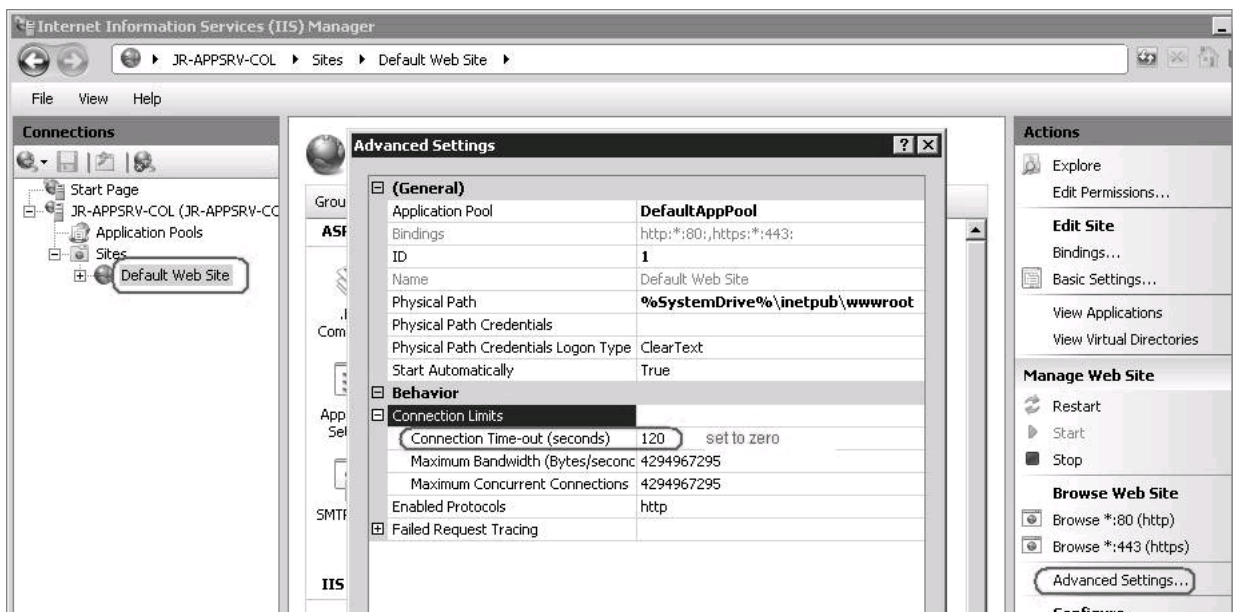
### To improve application pool timeouts in IIS6

If changing windows in iMIS is slow, increase the application pool timeouts.

1. Open Internet Information Services (IIS) Manager on the appserver.
2. In the **Application Pools** folder, right-click **iMISASP20** and choose **Properties**.
3. On the **Performance** tab, disable or modify the **Shutdown worker processes** timeout.  
*Recommended:* For high traffic, set within 60 to 720 minutes; for low traffic, disable entirely.
4. On the **Recycling** tab, modify the **Recycle worker processes** timeout.  
*Recommended:* For high traffic, do not change the timeout; for low traffic, set to run at off-peak hours or weekly
5. Repeat this process for each iMIS appserver.

### To improve application pool timeouts in IIS7

1. On your appserver, open IIS Manager.
2. In the left pane (**Connections**), select **Application Pools**.
3. In the middle pane (**Application Pools**), select **iMISApp AppPool**.
4. In the right pane (**Actions**), select **Edit Application Pool > Recycling...** (*not* the **Recycle...** task).
5. In the **Recycling Conditions** window, ensure all checkboxes are cleared (unchecked).
6. Click **Next**, then **Finish**.
7. Again in the right pane (**Actions**), 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. Back in the left pane (**Connections**), select **Sites**.
11. Select the **Default Web Site**.
12. In the right pane (**Actions**), select **Manage Web Site > Advanced Settings...**
13. In the **Advanced Settings** window, under **Connection Limits**, set **Connection Time-out** to zero (0).



14. **Save** the setting changes.
15. Restart IIS.

## Configuring IIS 7 to run iMIS

These configuration settings apply to *all* systems running IIS 7 (Windows Vista/7 or Windows Server 2008) where *iMIS* appserver components are installed.

*Note:* The *iMIS* installer applies these settings, but follow these procedures if you are configuring your system manually or want to implement IIS 7 configuration tips.

### To specify the .NET application pool

1. Select **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
2. Navigate to the *iMIS* website and select it.
3. To the right, select **Basic Settings**.
4. Click the **Select** button beside the **Application pools** value.
5. From the drop-down list, select **iMISApp .NET AppPool**.
6. Select **OK** on all dialog boxes.
7. Restart IIS 7.

#### To enable 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.

1. Select **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
2. Within IIS 7, click on **Application Pools**.
3. Select **Classic.NET AppPool**.
4. Right-click and select **Advanced Settings**.
5. Ensure **Enable 32-Bit Applications** (second in the list) is set to **True**.

### Troubleshooting services

---

*Note:* Do not enable Windows Search Service after enabling Indexing Service: only one can be running.

---

The installer checks for and configures services that *iMIS* needs, and it warns you when it detects problems. These are the settings required on each server:

#### Windows 2008

Open **Server Manager** and add the following roles and role services:

- (Application servers only) Add **Application Server**.
- Add **File Services**, then select **Add Role Services** and add **Indexing Service**.
- Add **Web Server (IIS)**, then select **Add Role Services** and add **ASP.NET**.
- Under **Features > Add Features**, enable **.NET Framework > WCF Activation > Non-HTTP Activation**.

#### Windows 2003

- (Application servers only) Open **Manage Your Server** and add **Application Server Role (IIS, ASP.NET)**.
- Enable Indexing Service:
  - Select **Start > Control Panel > Add or Remove Programs, Add/Remove Windows Components, Indexing service**.
  - (*Vista, 7*) Select **Control Panel > Programs and Features, Turn Windows features on/off**, and enable **Indexing Service**.
- Enable the 32-bit version of ASP.NET:
  - *64-bit only:* To install the 32-bit version, type two commands at the command prompt:
 

```
cscript %SYSTEMDRIVE%\inetpub\adminscripts\adsutil.vbs SET
W3SVC/AppPools/Enable32bitAppOnWin64 1

%SYSTEMROOT%\Microsoft.NET\Framework\v4.0.30319\aspnet_regiis.exe -i
```



- ❑ Select **Start > Administrative Tools > IIS Manager**, expand **Web Service Extensions**, and set the status of **ASP.NET v4.0.x** to **Allowed**.

## Configuring standalone WCM sites

1. To support searching on the site, enable Indexing Service.
2. If the site is in 64-bit mode and needs to support Crystal reports, enable 32-bit support.

---

*Tip:* If you do not need Crystal, you can remove the Crystal references from the site's **app.config** and leave it in 64-bit mode.

---

- ❑ Select **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
- ❑ Select **Classic.NET AppPool**.
- ❑ Set **Advanced Settings, Enable 32-Bit Applications** to **True**.

## Setting up the *iMIS* SOA web service

*iMIS* SOA is a web service used by newer iParts, which you can add to 1600 and 1700 templated sites. Be sure to enable SOA if you intend to use a site based on 1600 or 1700.

---

**Caution!** *iMIS* SOA installs as an enabled service, so be sure to secure it before going live.

---

### To prepare your SOA host

For the SOA service to receive connections and pass Windows security, configure several things on the machine that is hosting it:

1. Install *iMIS*. This installs the SOA service host with the correct database connection information.
2. Disable simple file sharing (**Folder Options, View, Advanced settings**).

*Tip:* Missing this can cause this error: "A remote side security requirement was not fulfilled during authentication. Try increasing the ProtectionLevel and/or ImpersonationLevel."

### To secure your SOA service for external access

If IIS version 6 (IIS6) is installed on your computer, then *iMIS* installs the SOA service onto each appserver. The *iMIS* SOA Service Host (**AsiSoaHost15**) includes a Net.TCP endpoint for the SOA service. If IIS version 7 (IIS7) is installed on your computer, then *iMIS* SOA is integrated with IIS7 so there is no separate service. The default port is different for SOA depending on version of IIS.

- **IIS6:** The default Net.TCP endpoint is port 16000. You can change it to another port by editing the **Asi.Soa.ServiceHost.exe.config** file and restarting the service.
- **IIS7:** The default port is 808. You can change this port through IIS7 administration.

---

*Note:* If you change the default port, you must change the **DefaultBaseUri** key in the site **web.config** file as well as any client that uses SOA.

---

Take these steps 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 appservers that will be using (or hosting iParts which use) SOA.
  - ❑ Additionally, the addresses of any other machines hosting in-house applications that use WCF to consume the SOA service.

---

**Caution!** Do not make this endpoint available externally; for B2B and other external scenarios, use the Soap11 (username/password required) endpoint.

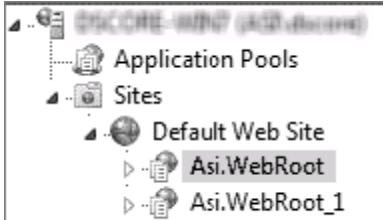
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2. To secure the host service's port, configure **Internet Protocol Security (IPSec)** to prevent unauthorized access. For complete walkthroughs of IPSec on both Windows 2008 and Windows 2003, see Microsoft's [IPSec guidance](#).

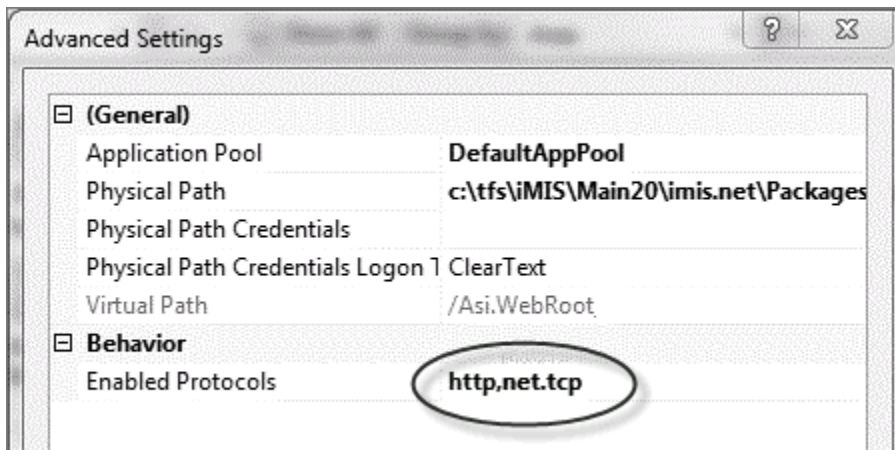
#### (IIS7) To enable the SOA service protocol

Using IIS7, you will not see the ASI SOA host service because it is integrated under IIS. Because of this integration, you must turn on **NetTcp** for your sites, for each virtual root you create:

1. In **IIS Manager**, select the site, and select **Advanced Settings**.



2. Make sure **net.tcp** appears in **Enabled Protocols**:



3. Repeat this process for each of your virtual roots.

#### (IIS6) To manage the SOA service

1. Open the **Services** window on the host.
2. As needed, edit the ASI SOA service to run **Automatically**.
3. As needed, **Stop** or **Start** the ASI SOA Host service.
4. Reboot the system.

#### Best practices

- After you change any *iMIS* system configuration item, restart the SOA service to ensure that the changes take effect.

## Restricting SOA access via IP address

By default, *iMIS* SOA provides three 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 altogether or by restricting SOA access to use by internal systems and trusted partners only. To achieve this, use your Microsoft IIS server to restrict access to SOA services by IP address. Regardless of which IIS server version you have, the approach centers on the **EntityService.svc** file in the web root. Choose one of two strategies:

**[1] DISABLE** - If you do not need outside access to your database, disable external access entirely by simply renaming **EntityService.svc**.

**[2] RESTRICT** - Otherwise, add a fourth level of security, by applying the specific IP address restrictions to **EntityService.svc**.

[1] Disabling all external access via SOA services

1. Locate the file **EntityService.svc** in the web root.
2. Rename the file (such as \*.bak).

---

*Important:* There is a *second* **EntityService.svc** in the directory **/NetTcp**. Do not rename or delete this second file, as it provides internal-only access (using a protocol not available to external users), and it is required for the operation of *iMIS*.

---

[2] Restricting SOA access via IP address

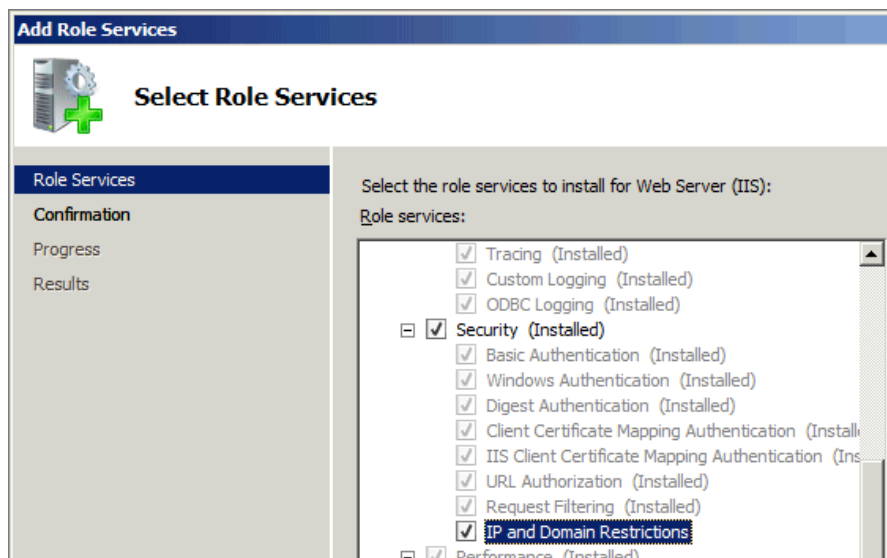
By default, IIS 7 installations do not enable IP restrictions, so restricting IPs requires a few more steps.

**To restrict SOA access by IP on IIS 7**

1. Ensure that your server has IP security enabled.

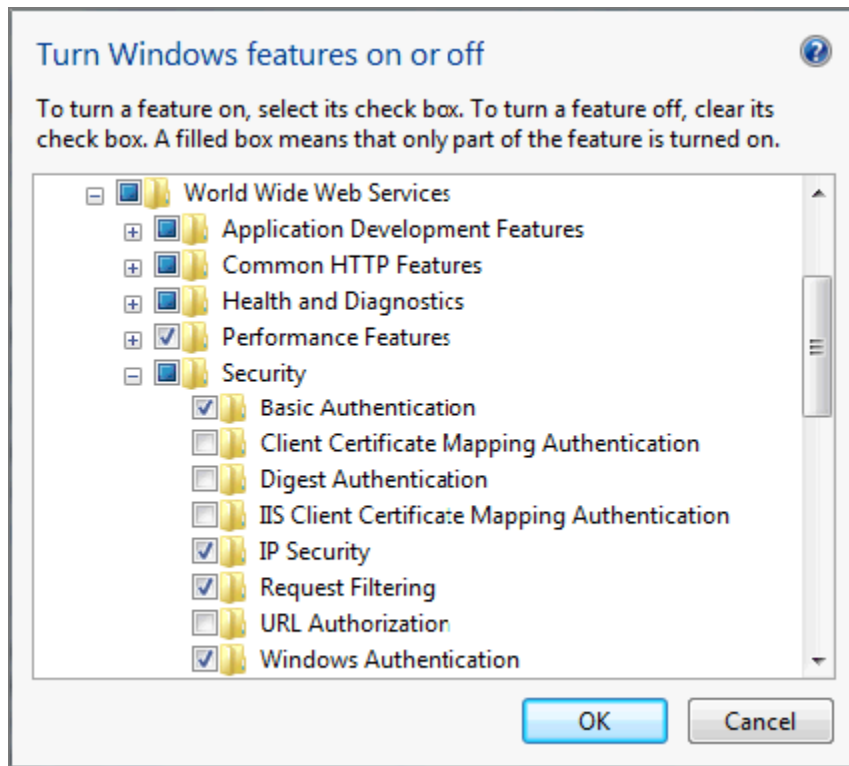
*Windows 2008/R2:*

- ☐ Select **Start > Administrative Tools > Server Manager**.
- ☐ Select **Roles > Web Server**.
- ☐ Select **Add Role Services**.
- ☐ Ensure **IP and Domain Restrictions** is checked.

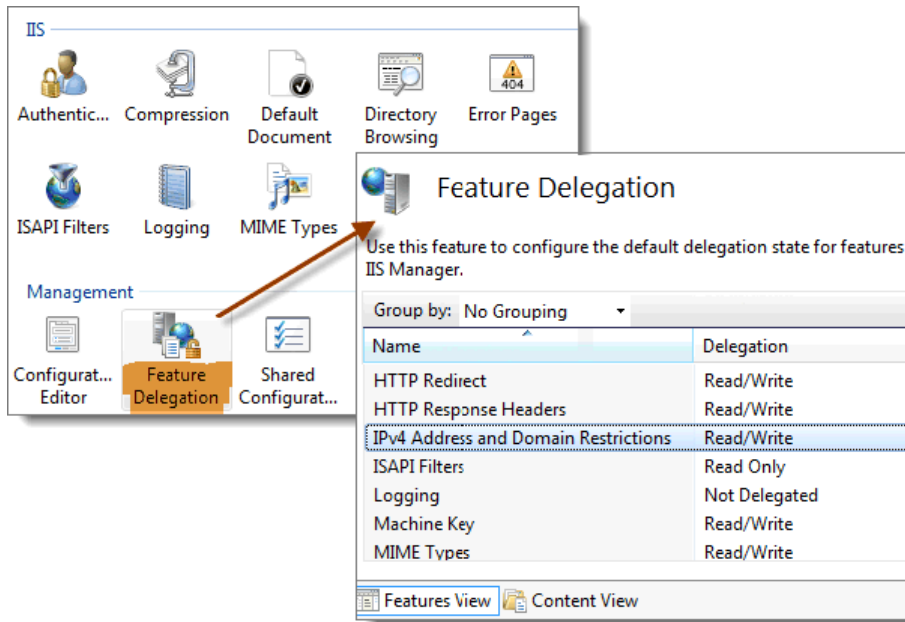


Windows 7:

- ❑ Select **Start > Control Panel > Programs and Features**.
- ❑ Select **Turn Windows features on and off**.
- ❑ Navigate to **World Wide Web Services > Security**.
- ❑ Ensure **IP Security** is checked.
- ❑ **OK** and close.



2. Enable read/write on IIS IPv4 Address and Domain Restrictions:
  - a Open Internet Information Service Manager.
  - b Click on the machine name in the **Connection** panel.
  - c At the bottom, click on **Feature Delegation**.
  - d Ensure that **IIS IPv4 Address and Domain Restrictions** are set to **Read/Write**.



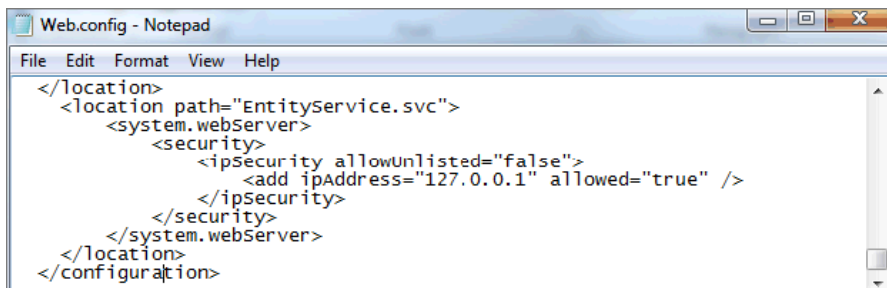
3. Add IP restrictions to the web.config file:
  - a Locate the file **web.config** in the root of the website.
  - b Ensure that the read-only flag is turned off.
    - Right-click on **web.config**.
    - Ensure the **Read-only** check box is clear.
  - c Open **web.config** with a text editor (such as Notepad).
  - d At the bottom of the file and above the **</configuration>** line add IP restrictions.

```

<location path="EntityService.svc">
  <system.webServer>
    <security>
      <ipSecurity allowUnlisted="false">
        <add ipAddress="127.0.0.1" allowed="true" />
      </ipSecurity>
    </security>
  </system.webServer>
</location>
</configuration>

```

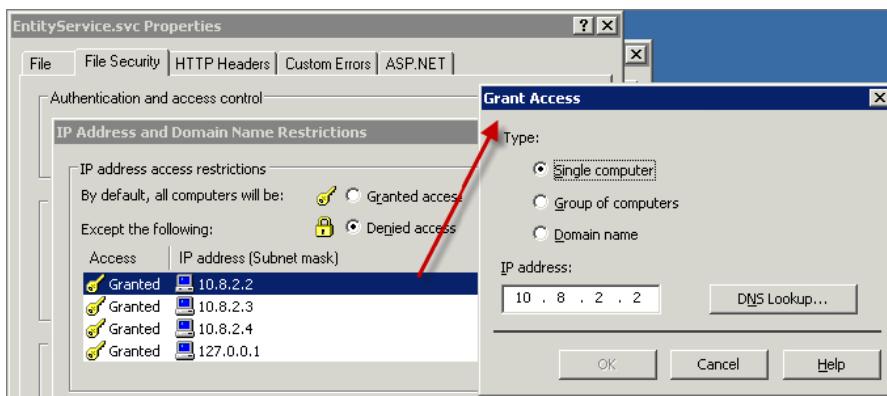
For example, the above restricts external/http/soap access to only the local computer.



#### To restrict SOA access by IP on IIS 6

IIS 6.0 IP restrictions are made by using the IIS manager to apply IP restrictions (via IIS 6 metadata), directly to the EntityService.svc in the root directory.

1. Open Internet Information Service Manager.
2. Navigate to the *iMIS* website.
3. Navigate to the file **EntityService.svc** within the website root.
4. Right-click on **EntityService.svc** and select **Properties**.
5. Select **File Security**.
6. Select **Edit**.
7. Select the radio button **Denied access**.
8. Add any selected IP addresses that should have access. To deny all external access, do not enter any addresses.
9. **OK** all windows and close.



#### To test external access to SOA 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. Navigate your browser to your main *iMIS* web site.
2. Select the address, such as: `www.mywebsite.com/EntityService.svc`
  - If access is allowed, a simple display starting with EntityService Service should appear.
  - If you have restricted access, a form of an "access denied" message should appear.

Note that username and password are still required to actually access data.

## Securing the web services

Security to these web services is set in the **web.config** file, which defaults to this location:

C:\Program Files\*\ASI\iMIS\net\

#### To secure 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** 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 in the **query** folder:  
`http://[domainname]/imis/AsiCommon/Services/query/queryservice.asmx`

#### To secure MembershipWebService

**MembershipWebService** gives an administrator access to specific membership operations, such as changing user passwords, user names, logins, etc.

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:  
`http://[domainname]/imis/AsiCommon/Services/membership/membershipwebservice.asmx`

---

## Client Roll-out

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* Desktop users, email them their logon information and tell them how to download the pre-configured installer to put *iMIS* Desktop on their computers. You can copy the following procedures to your internal support site or paste them directly into email.

---

**Caution!** Be sure to change the default MANAGER password before going live! In *iMIS*, go to **System Setup > Security Administration > Users**, find and select MANAGER with the **Users** query, and edit the **User Credentials**.

---

## Running silent installations of *iMIS* Desktop

Larger organizations may want to run a silent version of the *iMIS* Installer, where the **setup.exe** displays no installation pages and requires no manual input to run to completion. You accomplish this by running the **setup.exe** 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** in a silent mode that uses the answer file to specify all the installation details.

For example, a common use of this technique would be to automate the installation or upgrade of *iMIS* Desktop clients 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**, you would:

1. Produce an answer file to use for new installations of the *iMIS* Desktop client by running the latest **setup.exe** in recording mode on a workstation that has no *iMIS* Desktop client and performing a **Custom** installation that installs only the **iMIS Desktop Client**.
2. Produce an answer file to use for upgrades of existing *iMIS* Desktop clients by running the latest **setup.exe** in recording mode on a workstation that already has an *iMIS* Desktop client and performing a **Custom** installation that installs only the **iMIS Desktop Client**.
3. You then use the automated process of your choice to run the latest **setup.exe** 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 *iMIS* Desktop client.

---

**Caution!** Although you can technically use this recording process to create an answer file for any type of *iMIS* installation you can perform manually, ASI does not recommend silent installations of any server-side component of *iMIS* and any attempts to do so are at your own risk.

---

### To record an answer file

This process records the configuration used for a run-through of the *iMIS* Installer to an answer file. You get an option to cancel the process immediately after the answer file has been created, but before the installation actually begins.

1. Open a **Command Prompt** window and navigate to the folder where the **setup.exe** is located.
2. Enter **setup.exe -r** to launch the *iMIS* Installer in recording mode.
3. Work through all the Installer pages as normal for the type of installation you are recording.
4. When you get to the point where installation is ready to start, you are prompted whether to stop here or continue with the installation. If all you want is the answer file, you can choose to stop here.
5. Navigate to **C:\Windows** and locate the **setup.iss** file that was created in the previous steps. Copy this file and the **setup.exe** to a folder with a meaningful name that describes the type of installation this pair will create.
6. Use a text editor such as Windows Notepad 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** and its corresponding answer file) can now be used in silent installations.

### To run a silent installation using an answer file

1. Open a **Command Prompt** window and navigate to the folder where the **setup.exe** and **setup.iss** are located. These two files must be in the same folder and there must be only one **setup.iss** 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. (after all, this is a *silent* installation). The only way to tell when the installation has finished is either by the absence of **setup.exe** being listed 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
```

### Tips

- If there appears to be a problem with the result of a silent installation, you can review the following two 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** and that was used for the silent installation. This location and file name might be different as described below.
  - The **IMISinstall.txt** file located in **C:\Windows\Temp**.

The **Troubleshooting** section below describes how to use these two files to troubleshoot problems with a silent installation.



- 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 actually run the *iMIS* Installer in recording mode to create different types of installations.
- If you prefer the answer file to be placed in a different location than the default **C:\Windows** folder, use the **-f1** parameter as follows when you run the **setup.exe** in recording mode. Two examples:

```
C:\temp\setup.exe -r -f1C:\temp\setup.iss
C:\temp\setup.exe -r -f1"C:\Directory With A Space In It\setup.iss"
```

---

**Caution!** 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**, 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.

An example scenario should make this clear. 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 *iMIS* Desktop client from that **setup.exe**. You would first run the first line shown below on a workstation that does not contain an *iMIS* Desktop client to record a specially-named answer file for doing silent installs or upgrades of only the *iMIS* Desktop for this release. Then on each workstation where you want to install or upgrade the *iMIS* Desktop, you would run the second line.

```
U:\iMISInstaller\setup.exe -r -f1U:\iMISInstaller\iMISDesktop.iss
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 different name than the default **setup.log**), use the **-f2** parameter as follows. 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
```

---

**Caution!** The **-f2** parameter must use an absolute file path that starts with a drive letter.

---

## Troubleshooting

- Answer files are specific to the version of the **setup.exe** 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 *iMIS* Desktop client, it is generally safe to troubleshoot the issue with the answer file and then attempt the silent installation again (although by now you're 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 *iMIS* Desktop client, you should not try to modify the answer file and run the silent installation again, because it's likely by this point that some *iMIS* Desktop-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 *iMIS* Desktop on a computer where it's installed in the default **C:\Program Files\ASI\iMIS** path, and then you run a silent installation on a target computer where the *iMIS* Desktop is installed in a different path.
  - The answer file was recorded on a computer that already had an *iMIS* Desktop, so it's an upgrade installation, but the target computer does not have an *iMIS* Desktop installed already (a new installation), so it needs 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, appserver URLs, license values, etc. 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 or not 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:

```
12:02:58 | SilentReadData section: asiDatabaseInfo-0 key: sgSQLServer
12:02:58 | found sgSQLServer: MYMACHINEHOST\SQL2005CS
```

The preceding 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
```

## Using a web client to access *iMIS*

**Full** and **Casual** users can connect to a limited view of *iMIS* with just a browser; no installation is needed.

### To use a web client to access *iMIS*

1. Ask your *iMIS* administrator for the website URL and **Logon** name and **Password** you should use with *iMIS*.
2. Open a *supported web browser* (see "[System requirements](#)") and browse to the URL.

The *iMIS Home* page appears, showing functional areas across the top of the page: **Home** and **Directory** by default, and **Events** and **Store** if authorized.

3. Test your access to *iMIS*.

- Click **Log on**.

The *iMIS Logon* page appears.

- In the **Logon** field, enter the logon name given to you.
- In the **Password** field, enter the password given to you.
- Click **Log On**.

If the **Home** page changes to display a fifth tab (**Contacts**), your access to *iMIS* is working properly. If not, your user record may be missing the **Module Authorization Levels** you need.

## Downloading and installing *iMIS Desktop*

**Full** and **Casual** users who need *iMIS Desktop* can get it themselves: they 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 *iMIS Desktop*.

You must be an Administrator on your computer to install *iMIS* Desktop, and you need to set your *iMIS* Desktop shortcuts to **Run as administrator**.

#### To download and install *iMIS* Desktop

1. On the computer where you need *iMIS* Desktop, open a web browser and go to the URL given to you.  
The **iMIS Pre-configured Installers** page appears.
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**. (Choose **Allow** when prompted whether to run the program.)  
The setup program prepares and displays the **Welcome** page of the **iMIS - InstallShield Wizard**.
4. Click **Next** three times.  
The wizard displays setup status as it copies files, and then the wizard completion page appears.
5. Review the messages on the completion page and act on them as needed.
6. Click **Finish**.
7. Configure the *iMIS* Desktop shortcut to "Run as administrator".
  - ☐ Locate the **Start** menu shortcut for *iMIS* Desktop.
  - ☐ Right-click the shortcut and choose **Run as administrator**.
  - ☐ If prompted to allow **Omnis7.exe** to run, click **Allow**.
8. Test your access to *iMIS*.
  - ☐ From your **Start** menu, choose **All Programs > ASI > iMIS > iMIS**.  
*iMIS* Desktop opens a logon screen.
  - ☐ In the **Logon** field, enter the logon name given to you.
  - ☐ In the **Password** field, enter the password given to you.
  - ☐ Click **OK**.

If you see the *iMIS Home* page, your *iMIS* Desktop is working properly.

---

*Tip:* If you see multiple errors for running scripts after you first log on to *iMIS* Desktop, your Internet Explorer security settings may be too high.

---

## Using *iMIS* Desktop with multiple appservers

If you have more than one instance of *iMIS* (see "[Choosing single or multiple appservers](#)"), you might need to configure *iMIS* Desktop to be able to connect to more than one, such as connecting to test and production environments.

---

*Note:* As of release 15.2.10, the URL to *iMIS* Desktop must end with /CS.

---

#### To configure *iMIS* Desktop to connect to multiple appserver URLs

1. Open *iMIS* Desktop *but do not log on!*
2. Click **Cancel**.
3. From the *iMIS* Desktop menu bar, choose **Logon > Set Host Location**.
4. On the **Local Preferences** window that appears, click **Insert**.
5. On the **Application Server URL Setup** window, specify one of the 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.

---

**To specify the instance of *iMIS* to which you connect**

---

1. Open *iMIS* Desktop *but do not log on!*
2. Click **Cancel**.
3. From the *iMIS* Desktop menu bar, choose **Logon > Set Host Location**.
4. On the **Local Preferences** window that appears, click **Edit**.
5. When the **Application Servers** drop-down list becomes active, choose the URL to which you want to connect.
6. Click **OK** and close the **Local Preferences** window.
7. From the *iMIS* Desktop menu bar, choose **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.

---

## Multi-Instance Utility

The Multi-Instance Utility (a standalone utility in your program group) helps you quickly install additional instances of *iMIS*. By copying an already-existing instance of *iMIS* and running the utility on the copy, you can create an independent new instance of *iMIS* on the same appserver.

---

*Important:* To use the utility, you must install *iMIS* into a **virtual root** (not the default website).

---

This utility makes it easy, for example, to generate production copies from test installations. The utility automates such things as creating new instances of the publishing, workflow, SOA host, and indexing services and updating config files for the second instance. For patches, you have the option of leaving already installed services in place.

---

**Multiple server codes:** This utility does *not* address multiple WCM sites associated with the same *iMIS* database. Rather, it helps you configure a second (or third or fourth) instance of a base *iMIS* install, with associated Web and Public views. If you have multiple publishing servers (and server codes), then you must configure those additional ones manually.

---

The screenshot shows the 'ASI Multi-Instance Utility' window. It has a title bar with a question mark icon and standard window controls. The main area is divided into four panes. The 'Server Information' pane on the left contains text boxes for 'iMIS Installation Path' (with a browse button), 'Virtual Directory Name', 'SMTP Server', 'SQL Server Name' (with a dropdown arrow), 'Database Name', 'Logon', 'Password', and 'Original DB Name'. A 'Test Connection' button is at the bottom of this pane. The 'Service Configuration' pane on the right has a checked checkbox 'Configure Services (unchecked for updates)', followed by text boxes for 'Workflow Service Name', 'Publish Service Name', 'ASI SOA Host Name', 'Logon ID', and 'Index Catalog Name'. Below this is the 'Uninstall Existing Service' section with a dropdown for 'Existing Service Name', 'Remove Indexing Catalog' and 'Uninstall ASI Service' buttons, and checkboxes for 'Encrypt web.config files' and 'Reset to Defaults'. A 'Reconfigure iMIS site' button is at the bottom right. The 'ODBC DSN Configuration' pane at the bottom left has a text box for 'iMIS Reporting'.

The Multi-instance Utility resides in your `\\ASI\\iMIS\\Net\\bin` folder.

## Prerequisites for installing multiple instances

Use the [Multi-Instance Utility](#), which installs with *iMIS*, to install multiple instances of *iMIS* more easily.

### Important

- You can repeat this process to set up as many independent instances of *iMIS* as the server can handle.
- The process of copying the original instance folder to a secondary instance folder creates a pre-configured installers page for the new instance, but the installers still point to the original instance.
- You must use **Logon > Set Host Location** from *iMIS* Desktop menu to point to the new instance of *iMIS*.

---

*Note:* As of release 15.2.10, the URL to *iMIS* Desktop must end with `/CS`.

---

Before you begin

- Ensure the appserver already has a working installation of *iMIS*.
- Copy the `AsiMultiInstanceUtility.exe` file and the `Interop.CIODMLib.dll` file into the same folder on the appserver.
- Get the **sa** password for the SQL Server instance on which you will create the *iMIS* database for the second instance of *iMIS*.

---

**Important:** 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 may use hyphens and underscores after the first character, but avoid all other punctuation and symbols.

---

Process for creating a new instance of *iMIS*

---

**IIS7:** Using IIS7, you do not see the **ASI SOA Host Name** because it is integrated under IIS. Because of this integration, you must turn on **NetTcp** for the virtual root: in IIS Manager, select the site, select **Advanced Settings**, and make sure **net.tcp** appears in **Enabled Protocols**.

---

When copying the files to a new location to create (or update) the second (or Nth) instance, you follow this overall process:

1. Stop the **ASI Workflow**, **ASI Publishing**, and **ASI SOA Host** (if present) services.  
When copying files, only those services associated with the instance you are copying need to be stopped.
2. Copy the entire **\ASI** folder to a new folder, such as **\ASI\_2**.
3. Before running the utility, restart all of the services you stopped.  
For example, if this is the fifth instance that you are creating (or updating), then there should be four Publishing, four Workflow, and four SOA Host services running. After the utility is run, there are five of each.
4. Run the Multi-Instance Utility.

## Installing 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)\** for **C:\Program Files\**.

**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.

---

1. Create a new copy of the **ASI** folder structure and modify the access control lists for the new copy.
  - In **C:\Program Files**, create a copy of the entire **ASI** folder and all of its sub-folders, giving the new folder a unique name, such as **ASI\_2**.

```
xcopy "\\Program Files\ASI" "\\Program Files\ASI_2" /e /i /s
```
  - Modify the access control lists for the new folder by running the following against it from a command line:

```
ICACLS "\\Program Files\ASI_2" /t /grant Users:F
ICACLS "\\Program Files\ASI_2\iMIS\Net" /t /grant "Network Service":F
```
2. Define new virtual directories in Internet Information Services (IIS) and point them to new instances of the *iMIS* applications installed on this appserver.
  - **IIS7:** In IIS, expand the **Default Web Site**. If **iMIS** and/or **iMISpublic** appears under **Default Web Site**, perform the following steps *for each site*:
    - Right-click **Default Web Site** and select **Add Virtual Directory**.
    - Specify a unique **Alias** (**iMIS\_2** or **iMISpublic\_2**) and **Path** (**C:\Program Files\ASI\_2\iMIS\net** or **C:\Program Files\ASI\_2\iMIS\iMIS\_public**).
    - Right-click the new virtual directory and select **Convert to Application**.
    - In the pop-up dialog, click **Select...** and specify **iMISapp**; click **OK**.
    - In the left pane, click **Application Pools** (above **Sites > Default Website**). In the main pane, double-click **iMISapp**: Ensure that **.Net Framework 4.0** is selected, **Managed pipeline mode** is set to **Integrated**, and **Start application pool immediately** is checked. Click **OK**.

- Select your new application node (**iMIS\_2** or **iMISpublic\_2**); under **IIS settings** in the main pane, double-click the **Error Pages** icon, then double-click the entry for the 404 status code. Select **Execute a URL on this site**, and edit the URL to refer to the **404.aspx** page under the new application's alias (**/iMIS\_2/404.aspx** or **/iMISpublic\_2/404.aspx**). Click **OK**.
  - With the new application node still selected, double-click the **Default Document** icon under the **IIS settings**. If there is no entry for **Default.aspx**, add it.
  - Verify that **NetTcp** is enabled: In **IIS Manager**, select the site, and select **Advanced Settings**. Ensure that **net.tcp** appears in **Enabled Protocols**.
- **IIS6:** In IIS, expand the **Default Web Site**. If **iMIS** and/or **iMISpublic** appears under **Default Web Site**, perform the following steps *for each site*:
- Right-click **Default Web Site** and select **New > Virtual Directory**.
  - Using the wizard, specify a unique **Alias** (**iMIS\_2** or **iMISpublic\_2**), the **Path** (**C:\Program Files\ASI\_2\iMIS\net** or **C:\Program Files\ASI\_2\iMIS\iMIS\_public**), and allow only **Read** permissions.
  - Right-click the new virtual directory and select **Properties**.
  - On the **Virtual Directory** tab, click **Create** next to the **Application name** field.
  - From **Execute permissions**, select **Scripts only**.
  - From **Application pool**, select **iMISASP20** (Windows 2003) or **Classic .NET AppPool** (Windows 2008).
  - On the **ASP.NET** tab, for the ASP.NET version, select **4.0.x**.
  - On the **Custom Errors** tab, select **404 HTTP Error configuration** and click **Edit**. Change **Message type** to **URL** and **URL** to a slash followed by the virtual directory name followed by **/404.aspx** (**/iMIS\_2/404.aspx** or **/iMISpublic\_2/404.aspx**).
  - On the **HTTP Headers** tab, click **Add** next to the **Custom HTTP headers** field. In the **Custom header name** field, insert **X-UA-Compatible**. In the **Custom header value** field, insert **IE=EmulateIE8**.
  - On the **Documents** tab, select the **Enable default content page** option and **Add** the **Default.aspx** file at the top of the documents (unless it already appears there).
  - Click **OK**. The icon for the virtual directory (**iMIS\_2** or **iMISpublic\_2**) changes to a gear icon to signify that it is now an ASP.NET application.
3. Create an *iMIS* database for use with the new instance of *iMIS*.
- Use your SQL Server management tools to create a new *iMIS* database to use with this new instance of *iMIS*. (Generally, you do this by restoring a backup of your original instance of *iMIS*.)
  - Launch DB Maintenance, the **DBMaintenance.exe** utility that is located in the new **ASI\_2** folder structure (**C:\Program Files\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** to create the correct SQL Logins.
- 
- Tip:* Every time you restore an *iMIS* database under a new name, remember to run **Prepare iMIS Database** to create SQL Logins, or no one will be able to log into *iMIS* Desktop.
- 
4. Configure the new instance of *iMIS* using the Multi-Instance Utility.



- Locate and run the **AsiMultiInstanceUtility.exe** utility. Default location: \Program Files\ASI\iMIS\Net\bin
  - In **iMIS Installation File Path**, enter the full path to the **iMIS** subfolder located within the new **ASI\_2** folder (C:\Program Files\ASI\_2\iMIS).
  - In **Virtual Directory Name**, specify the URL for the new **iMIS\_2** application that you created earlier (for example, http://(servername)/iMIS\_2).
  - In **SMTP Server**, specify the domain name of your organization's SMTP server.
  - In **SQL Server Name**, **Database name**, **Login**, and **Password**, specify the location of the new **iMIS** database and the **iMIS** SQL Server login credentials for that SQL Server instance.
  - In **Original DB Name**, enter the value for the database from which the copy was made.
  - (optional) Enable **Encrypt web.config files** to encrypt the web.config files used by the **iMIS** applications. (See [Encrypt and Decrypt sections of .NET web.config files.](#))
  - If needed, override the default names for the ODBC DSN and services set by the utility.
  - For an initial install of a second instance, leave **Configure services** enabled.
  - Verify that the Publish, Workflow, and SOA Host services for *all* other instances are running, then click **Reconfigure iMIS site**.
  - If reconfiguration stops and **Remove Indexing Catalog** is enabled, click it before proceeding. Once the conflicting Indexing Service catalog is removed, run **Reconfigure iMIS site** again. See [Removing the indexing catalog \(Indexing Service\)](#)".
  - The utility displays status information as it updates .config files, updates the SystemConfig table in the database, creates an ODBC DSN entry for the new database instance, creates **AsiWorkflow15\_(dbname)**, **AsiPublishing15\_(dbname)**, and **AsiSoaHost15\_(dbname)** services, and creates a new Indexing Service catalog for the new instance of **iMIS**. The message **Configuration Successful** appears on completion.
5. Assign full permissions to the **BODAssembly.dll**.
- Navigate to the folder containing the **BODAssembly.dll** file. Each **iMIS** site has its own **BODAssembly.dll**, which is usually located in C:\Windows\Temp\iMIS site name.
  - Change the permissions to **Full control**:
    - Run the following command line:
 

```
ICACLS "C:\Windows\Temp\This is your sitename\BODAssembly.dll" /grant NetworkService:F
```
    - or
    - Right-click on the **BODAssembly.dll** file and select **Properties**. Select the **Security** tab and click **Edit**. Select the same user as the IIS AppPool and assign **Full control**.
  - Restart IIS.
6. Using **Control Panel > Services**, view the services running on the appserver and verify that the new **AsiWorkflow15\_(dbname)**, **AsiPublishing15\_(dbname)**, and (if it appeared for the first instance) **AsiSoaHost\_(dbname)** services are started.
7. Create a new **iMIS** Desktop shortcut for use with the second instance. Make a copy of the existing **iMIS** Desktop shortcut under **Start > Programs > ASI > iMIS > iMIS Desktop**. Right-click **iMIS Desktop** and select **Send to Desktop, create shortcut**.

8. Rename this shortcut to **iMIS\_2** (or whatever you are calling the second instance) and then right-click it and select **Properties**. Change the path in both **Target** and **Start In** to point to the second instance folder ("C:\Program Files\ASI\_2\iMIS\Omnis7\Omnis7.exe" imis4.lbr /m) and ("C:\Program Files\ASI\_2\iMIS\").
9. Test access to the new **iMIS\_2** application with *iMIS* Desktop.
  - ☐ Open *iMIS* Desktop *but do not log on!* Click **Cancel**.
  - ☐ Select **Logon > Set Host Location**. The **Local Preferences** window appears.
  - ☐ Click **Insert**. The **Application Server URL Setup** window appears.
  - ☐ In the **Server** field, specify the URL for the new **iMIS\_2** application that you created earlier (for example, `http://(servername)/iMIS_2`), and click **Save**.

---

*Note:* As of release 15.2.10, the URL to *iMIS* Desktop must end with `/CS`.

---

  - ☐ Click **Edit**, and from the **Application Servers** list, choose the URL for the new **iMIS\_2** application.
  - ☐ Click **OK** and close the **Local Preferences** window.
  - ☐ Select **Logon > Logon to Host**. The **Server** field indicates the URL for the new **iMIS\_2** application.
  - ☐ Log on as **MANAGER** and ensure that Desktop is working properly for the new instance of *iMIS*.

---

*Note:* If you receive a SQL Login error, close *iMIS* Desktop and run the **DBMaintenance.exe** utility that is located in the new **ASI\_2** folder structure (**C:\Program Files\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 *iMIS* Desktop again.

---
10. Perform the post-install configuration tasks listed in the *Installation Guide*.
11. Test access to the **iMIS\_2** application from the staff view.
  - ☐ Open a supported browser.
  - ☐ 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.
  - ☐ Click **Log On** and verify that you can log on as **MANAGER**.
12. (*Public view*) Test access to the **iMISPublic\_2** application with a web client.
  - ☐ Open a supported browser.
  - ☐ Go to the URL for **iMISPublic\_2** (for example, `http://(servername)/iMISPublic_2`). The public welcome page for *iMIS* appears.
  - ☐ Click **Log On** and verify that you can log on as **MANAGER**, which means connections to **iMISPublic\_2** are working properly.
13. (*CM Only*) Manually change the URL and other paths as needed for your second instance WCM site.
14. (*CM Only*) Regenerate all currently published content by going to the new instance's appserver:
  - ☐ From **Content Management**, select **Content designer > Manage content**, and select the root **@** folder.
  - ☐ Click **Publish**, select **Publish Working Items, Regenerate Published Items**, and click **OK**.

## Applying an update to a second instance

---

**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\**.

**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.
  - Copy the entire contents of the **ASI** folder (your original instance of *iMIS*) and all of its sub-folders into the **ASI\_2** folder.
  - Modify the access control lists for the new folder by running the following from a command line against that folder:

```
ICACLS "Program Files\ASI_2" /t /grant Users:F
ICACLS "Program Files\ASI_2\iMIS\Net" /t /grant "Network Service":F
```

4. Run *iMIS* DB Upgrader on the database used by the second instance.
  - Locate and run the **DBUpgrader.exe** utility that is located in the **ASI\_2** folder structure (**C:\Program Files\ASI\_2\iMIS\Net\iMISDBUpgrade**).

---

**Caution!** Do not launch **iMIS DB Upgrader** from the **Start** menu: that shortcut launches the utility associated with your original instance of *iMIS*.

---

  - 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**. The message **Upgrade Completed** appears 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 Workflow, Publishing, and Index Catalog services in place for the second instance.
7. Click **Reconfigure iMIS site**. The utility displays status information as it updates .config files, updates the **SystemConfig** table in the database, and creates an ODBC DSN entry for the new database instance. The message **Configuration Successful** appears when it completes.

If reconfiguration stops and **Remove Indexing Catalog** is enabled, click it before proceeding. Once the conflicting Indexing Service catalog is removed, run **Reconfigure iMIS site** again. See "[Removing the indexing catalog \(Indexing Service\)](#)".
8. Test the upgraded second instance:
  - Log on to *iMIS* Desktop as **MANAGER**; from **System Setup > iMIS management**, ensure that the database, web server, and SMTP server information are correct for this second instance of *iMIS*.
  - Use a browser to test the other views of *iMIS* for this second instance.

---

# Maintaining *iMIS*

## 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 *iMIS* Desktop.

### To add product keys

1. In *iMIS* Desktop, log on as **MANAGER**.
2. Select **File > System Setup**.
3. Click the hidden control button in the lower left corner of the window (see below).  
An unlabeled checksum field 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 list, delimiting each new product key with a comma (no spaces).  
Make sure that the string ends with a final comma.
6. In the unlabeled checksum field, enter the checksum provided with your keys.
7. Add any information specified in the instructions that accompanied your keys.
8. Click **Save**.
9. Close and restart *iMIS* Desktop to verify the new features.

10. Notify users to restart *iMIS* Desktop to see the changes.

*Location of the hidden control button for adding product keys*

## Importing records into *iMIS*

The method ASI supports for importing records into *iMIS* is the Import Utility, which imports **Name**, **Name\_Address** and user-defined tables only into *iMIS*.

**Caution!** To protect data integrity, never use the Import Utility without also using DB Maintenance, to synchronize the associated .NET tables.

**Note:** Using the NRDS bridge for data synchronization, you can now import NRDS records and set up an automatic synchronization between your NRDS and *iMIS* data.

### To import records into *iMIS*

1. Backup your database.

2. Download and apply the latest software update, following the instructions in the accompanying release notes.
3. On your appserver, run the **DB Maintenance** tool.
4. Enter your **SQL Server**, **Database User** (sa), **Password**, and **Database**. (Subsequently, DB Maintenance will store all but the password information for you.)
5. After connecting, select the **NetContacts** tab.
6. Click **Disable Name Table Trigger** to disable triggers temporarily.
7. Import your records in *iMIS* Desktop: select **Utilities > Data Transfer Utilities > Import Utility**.
8. When the import is done, click **Enable Name Table Trigger** to restore the triggers.
9. Click **Synchronize NetContacts** to update the associated NET tables.

## 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.

---

*Tip:* Avoid using third-party backup SQL agents, which may 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* on it, 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.

## Removing the indexing catalog (Indexing Service)

**Remove Indexing Catalog** is disabled until you need it, when you are reconfiguring a site or renaming an Indexing Server catalog. If the Multi-Instance Utility detects a catalog by that name, it stops configuring the site and enables the button to let you remove the conflicting catalog. When you click the button, it removes the catalog, and you are ready to try again.

---

*Note:* If you have **Windows 2008**, it displays an error message in the output; remove the catalog manually before proceeding.

---

**Best practice:** Although you can rename the indexing service rather than remove the existing one, it's best to remove the conflicting one.

#### To remove the indexing catalog

1. Select **Start > Computer**, right-click and select **Manage**.
2. Expand the bottom node, **Services and Applications**.
3. Right-click **Indexing Service** and select **Stop**.
4. Expand the node; right-click the catalog and select **Delete**.
5. Right-click **Indexing Service** and select **Start**.

#### To create an MMC snap-in for the indexing service

Windows Server 2008: After you install the Indexing Service, you must create a new Microsoft Management Console (MMC) snap-in for the Indexing Service.

1. Select **Start > Run...**, type `mmc`, and press **Enter**.
2. Select **File > Add/Remove Snap-in**.
3. From **Available snap-ins**, select **Indexing Service**, and click **Add**.
4. In **Connect to Computer**, select **Local computer: (the computer this console is running on)**, and click **Finish**.
5. Click **OK** to close and return to the console, which displays the Indexing Service snap-in.

## Changing application server host names

If the name of the server that host the *iMIS* appserver ever changes, you must uninstall and reinstall *iMIS* in order to enable remote installations and future upgrades of *iMIS*.

## Changing SMTP server settings

The SMTP server that you specify during installation of *iMIS* 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.

#### 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 appserver host, open the **web.config** files for each *iMIS* application.
    - *iMIS* default location: `C:\Program Files\ASI\iMIS\net`
    - *iMISpublic* default location: `C:\Program Files\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 onto to the SMTP server in your environment. For details, refer to your Microsoft ASP.NET documentation.

---

2. Restart each appserver 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 **Asi\*** services before attempting to restore the *iMIS* database; otherwise, they can lock the database and prevent the restoration.

- **AsiWorkflow15:** During installation, *iMIS* creates a service called AsiWorkflow15 on every appserver. This service manages processes defined in *iMIS* Process Manager.
- **AsiPublishing15:** A service called AsiPublishing15 exists on every host where you performed a Complete install or a Custom install of the **Publishing Service**. This service does 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 it live on the web server

## 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 Workflow Service.
2. Open the **Asi.Workflow.Service.config** file.
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. Restart the Workflow Service.

---

*Tip:* There is also a "keep-alive" service for all CM-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 **PublishService.exe.config** file (see "Adjusting the website keep-alive service").

---

## 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 *iMIS* Desktop.
  - 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 *iMIS* Desktop.
- **imisuser\_[db]** (where *[db]* is your *iMIS* database) is used by every *iMIS* user record that is *not* a member of the *iMIS* Desktop **SysAdmin** role in *iMIS* Desktop.



- 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.

#### To reset authentication passwords automatically

- In DB Maintenance, run **Prepare iMIS Database**.

This resets an *iMIS* database that has just been restored to a new location or under a new name.

#### To reset authentication passwords manually

---

*Note:* Rarely, if ever, will you need to reset the hashed passwords for these special SQL logins. Should you need to, follow this procedure carefully.

---

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 *iMIS* Desktop, 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**, **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 appserver.

## 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's safest for DB Upgrader to reapply the intermediate updates in order, whether needed or not. That way, if you've missed an update or two or even applied an earlier one over 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.)

---

## Troubleshooting *iMIS*

### Add to Calendar link does not work for user

#### Problem

The Add to Calendar link doesn't work for a user during event registration, or you see errors in your Error Log such as "The remote server returned an error: (405) Method Not Allowed." or "The remote server returned an error: (401) Unauthorized."

#### Solution

This problem can occur due to different causes:

- Your organization does not have an Exchange webmail proxy server, or, even if it does, the connection information for your designated webmaster is not specified correctly in *iMIS* **System Setup > Set up web components > Exchange settings**.
- End users who click the "Add to Calendar" link must have an Exchange-based email address in order for the link to work correctly for them. Not all desktops are configured to handle a request to add a calendar item.

---

*Note:* Outlook event invitations (Public view > **Events > Add to Calendar**) are the only *iMIS* email function that uses your organization's Exchange server. All other *iMIS* email functions use the SMTP server specified in the **web.config** files for your *iMIS* and *iMISpublic* applications.

---

#### To specify your organization's Exchange server settings for creating the calendar item

1. From *iMIS* **System Setup**, select **Set up web component > Exchange settings**.
2. The **Exchange settings** window appears.
3. In the **Username** field, specify your designated webmaster's domain user name required to log onto the proxy server for Exchange. For example, `username`. You may need to prefix the username with the domain name depending on the network location of the exchange server, such as `domainname\username`.
4. In the **Password** field, specify the corresponding domain password of your designated webmaster.
5. 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 `exchangeserver.localdomain.local` when the Exchange server is on a local network with your *iMIS* appserver.

---

*Tip:* Quickly test these three settings by opening Internet Explorer and entering the **Exchange URL** that you've specified in this **Exchange Settings** window. You should get a domain authentication dialog asking for your user name and password. If, after you enter them, your web mail inbox appears, these settings are correct.

---

## 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.

## Data source (ODBC) not found on Vista computers

### Problem

On a Vista/7 workstation, you can start *iMIS* Desktop normally, but when you attempt to log on to *iMIS*, you receive an OdbcSQL/31 0 - IM002 error that a datasource name was not found and there is no default driver specified.

### Solution

This problem is caused by trying to run *iMIS* Desktop without first setting the shortcut for *iMIS* Desktop to "Run as administrator". *iMIS* Desktop must be installed and run as administrator.

#### To set *iMIS* to Run as administrator

1. Close *iMIS* Desktop.
2. Ensure that your User Account says **Administrator**.
3. Locate the **Start** menu shortcut for *iMIS* Desktop.
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 *iMIS* Desktop to ensure that the problem is fixed.
7. Fix any additional *iMIS* Desktop shortcuts on your computer (for example, on the Windows Desktop).

## 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 all ASI services are stopped on every host that contains an instance of the application server or public website. If these services are running, SQL Server considers the database locked. The ASI services are:

- **AsiWorkflow15**
- **AsiPublishing15**

*After* restoring the database, restart all ASI services (and configure them for automatic startup).

---

**Caution!** 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 you do 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, when they register for an event through the Public view), or website error messages that are sent to the designated webmaster for your *iMIS*-based web content. Additionally, Outlook event invitations are not being sent to users who request them through the Public view of *iMIS*. (This might occur even if email outputs are working correctly.)

#### 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.

Use the following steps to correct this problem:

#### To specify your global email settings

Some email-related settings are global to your entire organization regardless of how many application servers you have.

1. Specify the email address of the designated webmaster for your *iMIS*-based web content.
  - From *iMIS* System Setup, select **Set up web component > Quick setup**.  
The **Quick setup** window appears.
  - In **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.
  - From *iMIS* System Setup, select **Set up web component > Exchange settings**.  
The **Exchange settings** window appears.
  - In the **Username** field, specify your designated webmaster's domain user name required to log onto the proxy server for Exchange. For example, `username`. You may need to prefix the username with the domain name depending on the network location of the exchange server, such as `domainname\username`.
  - In the **Password** field, specify the corresponding domain password of your designated webmaster.
  - 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 `exchangeserver.localdomain.local` when the Exchange server is on a local network with your *iMIS* appserver.

---

**Tip:** You can test these three settings by opening an Internet Explorer browser and entering the **Exchange URL** that you've specified in this **Exchange Settings** window. You should get a domain authentication dialog asking for your user name and password. Enter the **Username** and **Password** that you've specified. If your web mail inbox appears, these settings are correct.

---

### To specify your appserver-specific email settings

Some email-related settings are specific to each appserver, and even individually to each application on a server.

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 appserver host, open the **web.config** files for each *iMIS* application.
    - iMIS default location: C:\Program Files\ASI\iMIS\net
    - iMISpublic default location: C:\Program Files\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 onto to the SMTP server in your environment. For details, refer to your Microsoft ASP.NET documentation.

---
2. Restart each appserver on which you modified the **web.config** file.
3. Ask your 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 appserver 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, use the following steps to correct the problem:

1. Have everyone 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

---

*Caution!* Never do this while users are connected!

---

## Logon 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 appservers](#) 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 3rd-party Accumail product. Accumail comes with a 100-user license. Two circumstances cause this error:

1. The license did not properly update during the most recent upgrade.
2. 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 appservers](#) 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.

Use the following steps to correct this problem:

1. From Internet Explorer, select **Tools > Internet Options**.
2. On the **Security** tab, select **Trusted Sites**.
3. Click **Sites**.
4. Add your *iMIS* .NET Application server to the trusted **Websites** list.
5. Apply your changes.

## Pop-up windows never open

### Problem

When you click a button in an *iMIS* window, nothing seems to happen. 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 *iMIS* Desktop 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 Internet Explorer, 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 Internet Explorer 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.

## 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:

1. **Best approach** - separate your transaction processing from reporting functions, so that your 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** may cause erroneous values in reports if dirty reads or phantom rows have affected the result set of the report query.

2. **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 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 (no lock) to the end of the FROM clause. For example:

```
Select ID, LAST, ADDRESS from Name (no lock)
```

- To configure *iMIS* to use the NOLOCK keyword automatically on specific long-running reports, perform the following task.

### To create 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.

---

*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.

---

2. Using *iMIS* Desktop, log on to *iMIS* as MANAGER.
3. From the *iMIS* Desktop menu bar, choose **Utilities > Report Specs**. The **Report Specifications** window appears.
4. From the list of reports, select a report that is taking a long time to run and locking records for too long.
5. Click **Parameters**. The **Detail Report Parameters** window appears.
6. In the **Parameters** field, enter NOLOCK.

7. Click **Save**.
8. Repeat this process for all affected reports.
9. From the *iMIS* Desktop menu bar, choose **File > System Setup**. The **SQL Security Setup** window appears.
10. In the **NOLOCK** keyword field, enter NOLOCK.
11. Click **Save**.
12. Click **Create SQL Logins** to add the NOLOCK keyword to logins on that instance.
13. Enter the password and accept any messages about shutting down iBO on the host.

## 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 this:

- '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 for free download from several sites.

---

**Caution!** Be sure you get the **2005** pack (the 2008 SP1 package cannot correct the problem) and that you choose **Full** and not Upgrade.

---

## Problems publishing and creating new content

If you have problems publishing and creating new content, your host may be missing Windows Server roles it needs:

- Add **Web Server** and **Application Server** roles to each appserver.
- Add **Web Server** roles to each web server.

## 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 *iMIS* Desktop, 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.

Use the following steps to correct this problem:

1. Close *iMIS* Desktop.
2. Wait 15 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 and stop and restart all websites that contain your *iMIS* applications.

## TCP/IP performance is slow

### Problem

Overall performance of a back-end tier or of a **Full** user's *iMIS* Desktop 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 that “a query uses non-ANSI join operators” and the upgrade fails.

### Solution

This problem occurs only in Microsoft SQL Server 2005 environments and is most likely 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 many years ago 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's good practice to ensure that all such joins are declared using an ANSI-standard join clause.

Use the following steps to correct this problem:

1. Restore your original backup of the *iMIS* database.
2. Review the 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 haven't performed any action in *iMIS* for 20 minutes or longer.

### Solution

See "[Optimizing timeouts on production appservers](#)" 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 harmless and can be safely ignored in most cases. This error can cause problems only if you attempt to bulk load an affected table using BCP 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.

#### To rebuild a table

---

**Caution!** 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 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**.

#### 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.

## Additional resources

The following websites are useful resources for troubleshooting your installation:

- *ASI Support* (<http://advsol.com/support>)
- *iMIS Community* (<http://www.imiscommunity.com>)
- *iMIS Documentation portal* ( <http://docs.imis.com>)
- *Microsoft Support* (<http://support.microsoft.com/directory>)

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