Internet Applications

Sage ERP MAS 500

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Introducing Internet Applications

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The Sage ERP MAS 500 Internet Applications maximize your system's capabilities with modules that run from a Web server. This chapter describes the modules and how to install them.

In this chapter

Internet Applications Modules

Overview

Description

The Sage ERP MAS 500 Internet Applications consist of the following modules:

- eCustomer enables your customers to place orders directly to your accounting system from the Internet.
- eSalesforce enables salespeople to manage their sales contacts anywhere through a Web browser.
- Business Insights Dashboard allows executives to view company financial information from their Web browser.

Discontinued Modules

eCustomer and eSalesforce are no longer supported by Sage. The modules are included on the Sage ERP MAS 500 installation DVD as a benefit for customers who are currently using them and are upgrading to version 7.40.

eCustomer Features

Overview

Summary of features

eCustomer provides what you need to develop a business-to-business e-commerce system linked to your financial data in Sage ERP MAS 500. It includes:

- Data processing enhancements designed for Web-based processing.

- Enhancements to the Common Information, Inventory Management, and Sales Order modules to set up Web site folders; maintain users of the Web site; select items to sell through the Web site, organize them into groups and attach images to them; and process or purge sales orders with errors.

- A Web site that runs on Internet Information Services (IIS). You can customize the site with Microsoft Visual Interdev or Visual Studio and change security settings to fit your company's needs.

Because eCustomer is a part of Sage ERP MAS 500, purchases made from the Web site update the financial information in Sage ERP MAS 500.

eCustomer Architecture

Components used by eCustomer

eCustomer uses the following Microsoft components to perform transaction processing on the Internet:

- COM+ applications are designed for processing on the Internet. They manage, package, and provide security for transactions.

- IIS is used as the Internet server because it provides security, extensibility, and a complete set of tools for developing a Web site with dynamic information.

- Microsoft Messaging Queue (MSMQ) processes data in queues so that users do not have to wait for the database to be updated before completing a transaction. Transactions are completed when the database is available.

- OLE DB provides links between the databases and the ActiveX Data Objects (ADO) used as data interfaces. OLE DB enables you to specify servers and provides better performance than ODBC.

- Active Server Pages are used by the Web site to retrieve and display data. You can customize the format and scripting to meet your needs.

eCustomer Integration with the Rest of Sage ERP MAS 500

Introduction   This section describes how eCustomer fits in with the rest of Sage ERP MAS 500. For information about using these features to configure eCustomer, see Chapter 5, *Configuring the System for eCustomer*.

Product categories   Product categories enable you to organize the merchandise on your Web site into different groups, such as refrigerators, microwaves, and dishwashers. Within each category, you can create an unlimited number of subcategories. You can attach inventory and non-inventory items to product categories, assign an item to more than one product category, and change categories when needed.

For more information about this feature, see *Making Items Available for Sale* on page 95.

Attaching images to items

eCustomer enables you to attach a number of image files to the items you sell through the Web site.

When the customer selects an item on the order entry page, the image you selected appears in an adjacent frame. If you have more than one image assigned to this inventory item, a pair of buttons appears that enables you to browse through images.

You can provide more than one image to show different views of the product, such as showing the exterior and interior of a refrigerator, close-ups of details, or the item in different colors. You can use images on your Web server, or you can use images available on the Internet.

Managing external users of the Web site

To support customers who will use the Web site, eCustomer adds features for managing user names and passwords, granting buyers different levels of access to the site, and setting transaction limits. For information, see Chapter 5, *Configuring the System for eCustomer*.

Database enhancements

eCustomer requires an additional Sage ERP MAS 500 database called the Internet application database. This database offers the following benefits:

- Greater security: Data used on the Web site is kept separate from the rest of your Sage ERP MAS 500 data. You can configure the Internet application database with different security so it is available to Web users while keeping the Sage ERP MAS 500 system and application database secure.

- Greater performance and availability: Customers do not have to wait to get product information or for orders to update the Sage ERP MAS 500 application database. Transactions are placed in a queue and processed when the Sage ERP MAS 500 production database is available.

For more information about this database, refer to the *Installation and System Configuration* guide.

eCustomer Web Site Features

Overview of Web site   The Web site provided with eCustomer is designed to be flexible and freely customizable. The Active Server Pages can be modified to use your company's graphics and design schemes. You can have the Web site installed on your preferred host and use your preferred system of security. This section describes features and options of the eCustomer Web site.

Site structure   The basic eCustomer Web site has the following structure:

```
                        ┌─────────────┐
                        │  Home Page  │
                        └─────────────┘
                               │
          ┌────────────────────┼────────────────────┐
    ┌──────────┐        ┌──────────────┐      ┌──────────────┐
    │   Help   │        │  User Login  │      │     Site     │
    │          │        │              │      │ Configuration│
    └──────────┘        └──────────────┘      └──────────────┘
                               │
                        ┌──────────────┐
                        │   Customer   │
                        │ Welcome Page │
                        └──────────────┘
                               │
              ┌────────────────┴────────────────┐
       ┌──────────────┐                  ┌──────────────┐
       │   Customer   │                  │ Shop/Catalog │
       │   Service    │                  │              │
       └──────────────┘                  └──────────────┘
```

```
        ├─Pending Orders              ├─Catalog List
        └─Transaction Inquiry         │   └─Product Details
             ├─Sales Orders           ├─Shopping Cart
             ├─Shipments              ├─Check Out
             ├─Invoices               └─Catalog
             └─Payments                    └─Product Search
        └─Administration
             └─Buyer Maintenance
```
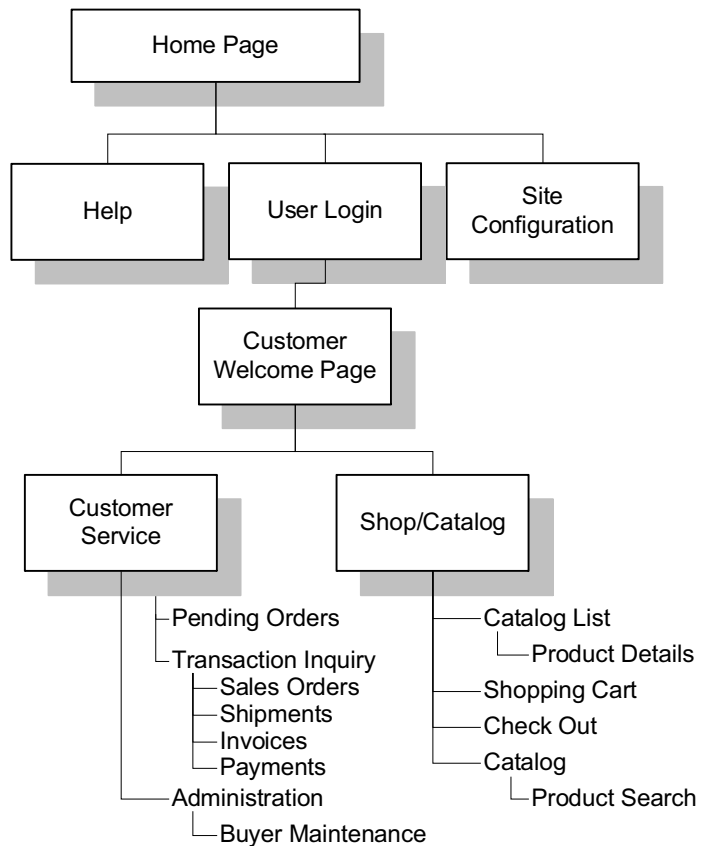
Site customization   You can link these pages to your existing site, add pages, and customize the pages to fit your needs. eCustomer comes with sample home pages that you can customize or replace with your own.

To get full functionality from the site, it is recommended that you do not remove any of the pages from the User Login branch of the Web site.

Order Processing in eCustomer

Introduction   When a customer creates an order in the Web site, it updates the application database and appears in the Sales Order module. This section provides an overview of how orders are processed from the Web site. For more information about processing sales orders, see the *Sales Order* Help system.

Viewing Web orders as sales orders   Orders from the Web site become sales orders in the Sales Order module. In Sales Order, you can open, view, edit, and process sales orders that came from the Web site.

The following figure shows how information from a Web-based order, as indicated on the Order Inquiry page, appears when you retrieve the order in Sales Order.

Sales order
number

Customer's
PO number

Order total

Line items

Sales order
date

Order status

Order fulfillment   After the order is entered into Sage ERP MAS 500 from the Web site, it follows the same order fulfillment process as any sales order. This includes acknowledgement, picking, shipping, and invoicing. For more information, see the *Sales Order* Help system.

As the order is processed in Sales Order, the changes are reflected on the Order Inquiry page. The order status on the inquiry is reported as Open from the time it is received as an unacknowledged sales order to when it is closed.

Closed orders   When you close an order from Sales Order, the order no longer appears on the Order Inquiry page of the Web site.

Cancelled orders   Orders cannot be cancelled from the Web site. Customers need to contact you to have orders cancelled from Sales Order. When you cancel an order, it is removed from the Order Inquiry page.

eSalesforce Features

Overview

Introduction   eSalesforce enables salespeople to manage their customers from any system through their Web browser. This enables salespeople to retrieve customer information while they are at the customer's site and place orders for that customer through the eCustomer Web site.

Main features   eSalesforce includes a Web site for searching and retrieving customer information. Like the Web site in eCustomer, you can customize the eSalesforce Web site to match your company colors and add other information.

This section explains the different parts of eSalesforce.

eSalesforce Web Site

Introduction   The eSalesforce Web site is designed to be used by your salespeople as an interface to Sage ERP MAS 500. It gathers information from Sage ERP MAS 500, generates credit applications, and provides links to eCustomer for placing sales orders. For more information, see *Using eSalesforce with eCustomer* .

Site structure

The basic eSalesforce Web site has the following structure:

```
Home Page
├── My Information ◄──────── Update My Information
├── Configure My Information
├── Customer Search ──── Customer Information
└── Credit Application ──► Submit Potential Customer to Sage ERP MAS 500

Transaction Inquiries ──── Orders, Shipments, Invoices, Payments
Pending Orders
User Maintenance
Customer Storefront ──── Confimation, Check Out
```
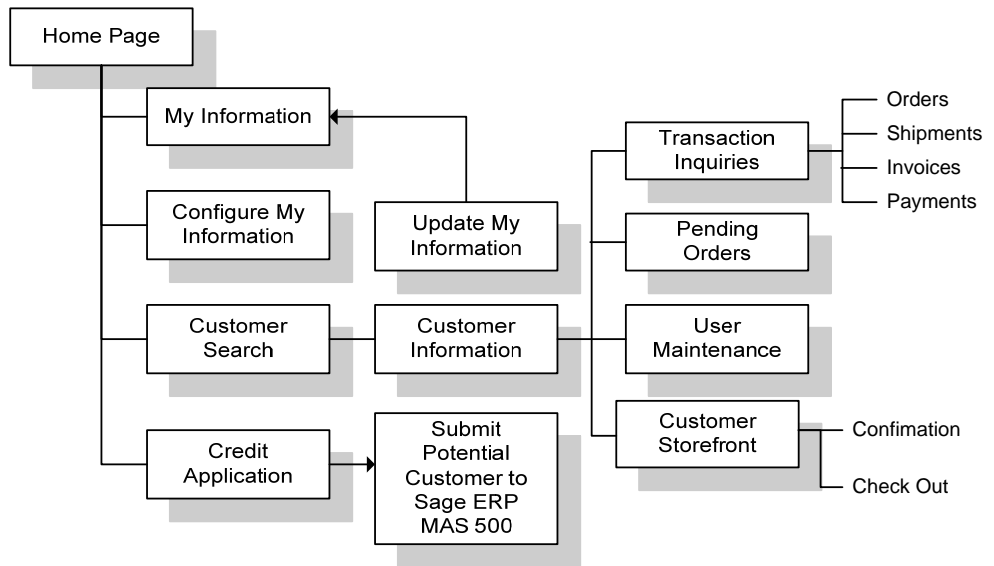
Supported customization

You can customize the eSalesforce site to use your company colors and formats. End users can also customize information that appears on the My Information page.

Using eSalesforce in the Sales Cycle

Introduction   Salespeople use the different pages of eSalesforce at different stages of the sales cycle. They can use pages to convert leads into customers and generate orders. These features are described in this section.

Terminology   eSalesforce uses the following terminology to describe the parts of the sales process:

Term	Description
Customer	A person or company who is ready to order or has already placed an order. A customer record is set up in Sage ERP MAS 500 that enables that person or company to place orders.

Overview of process

The following figure shows the sales process.

Potential customer wants to make a purchase. You make the potential customer a customer by submitting a credit application.

Credit Application page

Customer record is created in AR.

Credit application is sent to credit manager for approval. If approved, the customer is given a credit limit.

Sage ERP MAS 500 databases

Customer wants to place an order

For a new order

Customer Search page

Order is reflected in Sage ERP MAS 500 database.

Order placed

eSalesforce Order page

You place the order as an authorized buyer for your customer.

Using eSalesforce with eCustomer

Introduction

Use eSalesforce with eCustomer to enable salespeople to place orders for the customer.

Process of using the modules together

Salespeople use the combined modules as follows:

1   When customers want to place an order, salespeople look up the customer information on the eSalesforce Web site using the Customer Search page.

2   From the search page, they launch eCustomer. They are logged into your company eCustomer site as an authorized buyer for that customer.

Business Insights Dashboard Features

Overview

Introduction

Business Insights Dashboard includes a series of key business data components (also referred to as Web Parts) that generate summary information and charts from your financial information. These components appear in the user's Web browser and can be customized.

The Business Insights Dashboard contains three tabs: Dashboard, Explorer, and Links. The Dashboard tab contains a one-stop view of all your key business data. The Explorer tab allows you to view sales, purchases, inventory, project, and production information for the selected company. The Links tab allows you to view or add links to other Web sites.

This section describes information about Business Insights Dashboard installation. For more information about configuring Business Insights Dashboard, see *Chapter 7, Configuring Business Insights Dashboard*. For information about using Business Insights Dashboard, refer to the Help system.

Operation of Business Insights Dashboard

Overview   The Business Insights Dashboard is a Web site that provides executives with the ability to view and customize key business data for a selected company. You can also use the Business Insights Dashboard Web site to view Business Insights Explorer data, as well as set links to commonly used sites. Business Insights Dashboard uses ASP.NET technology to deliver consolidated data from the Sage ERP MAS 500 database to the client Web browser. ASP.NET contains the Web Part Manager which is a server control that manages all functionality, events, and customization of Web Parts within the Dashboard Web pages.

To learn more about using the Business Insights Dashboard, access the *Business Insights Dashboard* tutorial by clicking Tutorials on the Sage ERP MAS 500 Desktop.

Flow chart   The following figure shows how the Business Insights Dashboard works:
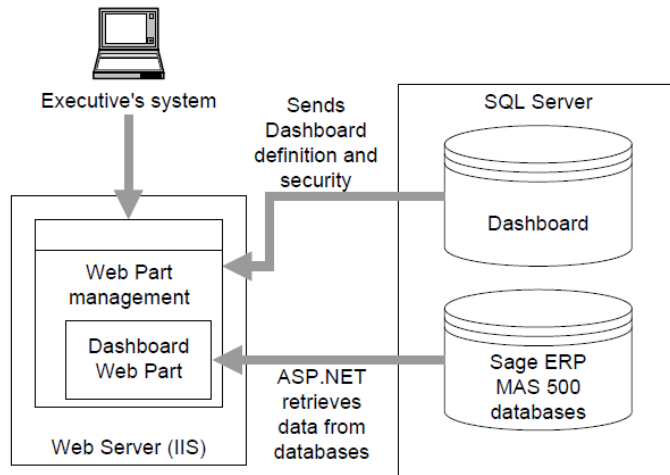
Updates   The data that appears in the Business Insights Dashboard Web site is updated according to the schedule you define in Set Up CI Options. You can also generate manual updates. For more information, see *Setting Site Options in Sage ERP MAS 500 on page 78*.

Installation of Business Insights Dashboard

Where Business Insights Dashboard is installed   Business Insights Dashboard is installed as an IIS application on the same Web server as the other Internet applications.

Requirements   Business Insights Dashboard requires ASP.NET and AJAX extensions, both of which are installed automatically if your system does not have these installed.

Security   Business Insights Dashboard requires Windows authentication. It cannot be configured for anonymous access. For more information, see *Security on page 32*.

Site Hosting and Configuration 2

This chapter describes hosting and configuration issues to consider when setting up your Web sites. Each Internet Application has different requirements, so you need to configure the sites for the appropriate level of security. The server where the Web sites are hosted need access to the Sage ERP MAS 500 server, so you need to configure the necessary components to enable the Web sites to communicate with the Sage ERP MAS 500 databases.

In this chapter

Information Processing

Overview

Introduction   This section provides examples of how information is processed by the Internet Applications and Microsoft Web components. An understanding of this information will help you to plan your Web sites.

Internet Application Processing

Introduction   When customers connect to the Internet Applications Web sites, they interface with IIS and COM+ applications. The COM+ applications perform data retrieval and update tasks.

Data inquiries for eCustomer and eSalesforce   When a user requests information on the Web site, such as an order inquiry or to see what merchandise is available, the request is sent through HTTP to IIS. A COM+ application for data access retrieves a disconnected set of tabular data and copies it to the user's client system.
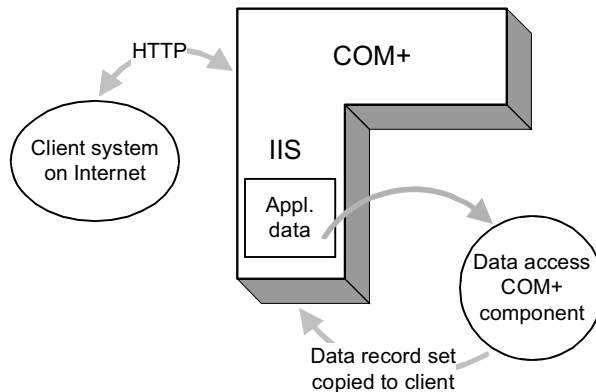
eCustomer processing

eCustomer uses queued processing. When a customer places an order from the eCustomer Web site, it is put into a queue to be added to the database as soon as it is available. This type of processing benefits the user in the following ways:

- The customer does not need to wait until the database is updated to continue using the Web site.

- If the connection to the application database is down, the request is not lost. The request remains in the queue and is processed on the database when the server becomes available.

When a request is made from the eCustomer Web site, two queued COM+ applications are used. These components are part of Microsoft Messaging Queue (MSMQ):

- Recorder: Packages the order into a request to update the database.

- Player: Sends the information to the server to update the database.

For example, when the customer places an order on the eCustomer Web site, the following happens:

1 The recorder does the following:
   - Draws information from the Internet application database to package a transaction to update the application.
   - Sends a message back to the customer acknowledging the order.

2 The package is then put in a queue to be sent to the application database.

3 Depending on the availability of the application, one of the following happens:

▶ If the application database is available, the transaction updates the application database immediately.

▶ If the COM+ application cannot connect to the application database, the transaction remains in the queue until the application database can be updated.

The following chart shows how the process works.
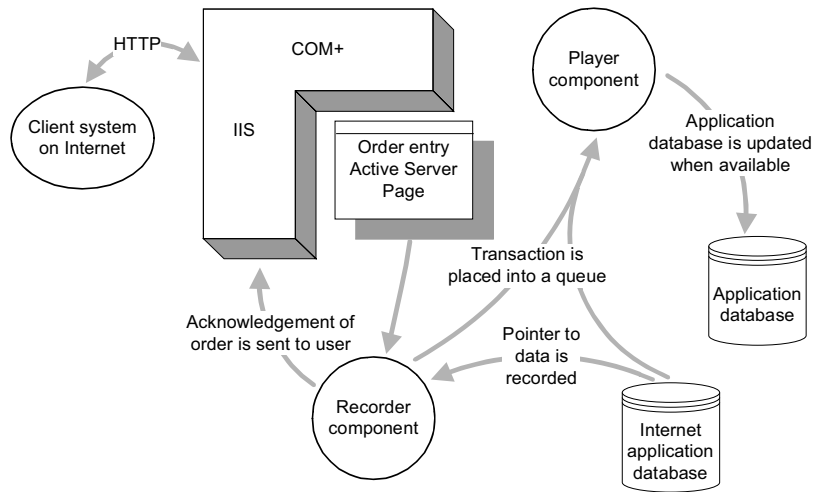
After the order enters Sage ERP MAS 500, it is processed as if it were entered directly in the Sales Order module. For more information, see *Internal Hosting* on page 29.

eSalesforce and Business Insights Dashboard

eSalesforce and Business Insights Dashboard use scheduled SQL Server tasks to update data. For more information, see *Setting SQL Server Schedules* on page 80.

Site Hosting Options

Overview

Introduction
The Internet Applications are flexible enough to work with your current Web hosting system and preferred method of security. This section describes options for hosting and security.

You can place the Web site on an intranet, an internal Web server, or a separate Internet service provider (ISP). This section explains how to configure the Internet Applications for different types of hosting.

Internal Hosting

Introduction
If your company does its own Web hosting (either on-site or in a co-location), install the Internet Applications on your Web server. Then surround the Web server with firewalls (one to protect it from the outside and the other to limit access by internal users).

NetBIOS connection requirement
To install the Internet Applications Web components on the Web server, you need to have local access on your system to the system's local drives through NetBIOS. You also need NetBIOS access to the shared folder for inventory images.

Sample site configuration The following figure shows an example of an internal hosting setup.
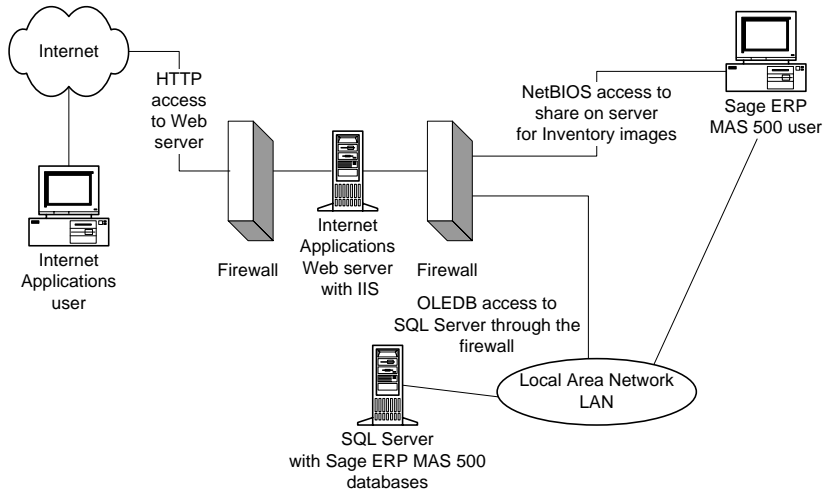
Hosting Through an ISP

Introduction The Internet Applications can also be hosted by an external ISP.

NetBIOS connection requirement As with the internal Web server, you need to have direct access to the Web server's local C drive through NetBIOS to install the eCustomer Web components. You also need NetBIOS access to the folder used for inventory images for eCustomer.

The ISP can grant you access through a virtual private network (VPN) to communicate to the Web server. If the ISP does not have a VPN available, you will need to either go to the physical server and install it directly or send the Internet Applications installation DVD-ROM to the ISP and have them install it for you.

Sample configuration   The following figure shows an example of a hosted setup.
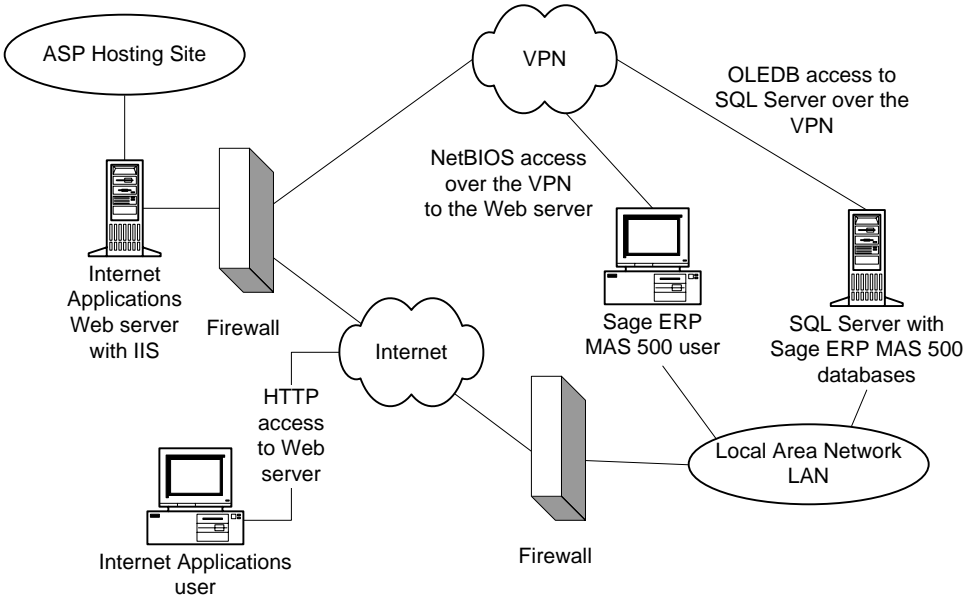
Security

Overview

Introduction   To protect your data and control access, Internet Applications work with security provided with Sage ERP MAS 500, IIS, and the COM+ applications.

This section describes features and issues that you should consider in setting up security for your site. For more information, see the Microsoft IIS and COM+ documentation or the Microsoft Web site at www.microsoft.com. If you have concerns about setting up security yourself, work with your ISP or a consultant to set up the best security for your site.

General Security Considerations

Public and private site considerations   The amount of security you set for a Web site depends on whether the site should be public or private. For private sites, configure them for high security. For public sites, you must balance the need for security with the need to make your Web site accessible. Some forms of security can make it difficult for legitimate users to enter and discourage them from visiting your site.

Web Site	Recommended type of site	Security issues
eCustomer	Public	Anonymous access can be used for greater access
		Secure administrative folders to prevent public access

Web Site	Recommended type of site	Security issues
eSalesforce	Private	Anonymous access not recommended
Business Insights Dashboard	Private	Windows authentication required
		Cannot use anonymous access

Controlling access to the Web site and data

To gain access to portions of the Web site and data, users need to be authenticated either by having them enter a logon name and password or by using logons set up in the system.

This section explains how security and logons work. For more information, see *Configuring the Web Site* on page 91.

Firewalls

Surround the Web server with two firewalls: one protecting the links from Internet and the other protecting links from internal users. The firewall on the internal link also protects your internal systems if someone manages to breach the external firewall. Configure the firewalls to allow access to port 80.

Firewalls are your first line of defense, but they should not be the only one. You should configure the Web server to provide additional protection.

Access to the Web site

The Internet Application Web sites use IIS to grant access. The settings for each site are different:

- The eCustomer Web site uses an anonymous logon because it is a site you want to make readily available to external customers. When users go to your Web site, they are not prompted to log on. They are authenticated automatically by the system using a system-generated logon and password. (You can replace the system-generated logon with a dedicated user logon on the system.)

- The eSalesforce Web site uses Windows authentication to restrict access to salespeople on your domain who are configured to have access in Sage ERP MAS 500.

- The Business Insights Dashboard Web site uses Windows authentication. You need to configure the Web server to grant access to the Web site only to the users who need it.

You can provide additional security through IIS by granting authenticated access to folders, the system, or the domain. If you use this feature, you also need to create a local account on the Web server with a user name and password for the system or domain; this account does not create the logon for the Web site in Sage ERP MAS 500. The authentication of folders in IIS requires that the Web site be on an NTFS volume.

You can also use the options provided with NTFS to provide additional access to your Web site. For example, you can set some folders as read-only to prevent them from being modified by unauthorized users. You can also limit access to some folders entirely to all but specific users.

Access to transaction processing

The eCustomer Web site uses Sage ERP MAS 500 security to restrict access to the transaction portion of the Web site. The Web site has a logon page where the user name and password are authenticated.

Users of the site are granted access either through Sage ERP MAS 500 or through a page on the Web site available to administrators. For more information, see Chapter 5, *Configuring the System for eCustomer*.

Access to COM+ applications

COM+ applications require a valid logon by a user of either the Windows Server or the domain where it is located. A default COM+ logon is created during installation. This logon can be changed. For more information, see *Settings Generated Automatically by the Installation* on page 56.

Secure Socket Layers (SSL)

Introduction   You can use SSL with any of the security methods described in this section to add greater security to the Web site. Your customers will appreciate the protection SSL gives them as they send their sensitive information through your site.

How SSL works   SSL provides a secured communications channel. Data is encrypted while it is in transit. The data is decrypted when it reaches its destination, but it is also decrypted at routers and bridges that it stops at on the way.

Web sites with SSL are connected with HTTPS instead of HTTP. A padlock icon appears on the status bar of the browser window when a user visits a site with SSL.

SSL and certificates   To use SSL on a Web site, you need to set up a certificate for the Web server. Certificates grant further security by using keys to authenticate the transaction: your public key and the customer's private key.

Certificates can be generated in the following ways:

- You can obtain certificates from a public certificate authority. These certificates are normally accepted automatically by external users.

- You can generate your own certificate using Windows certificate services. By default, these certificates are not trusted by external users. Users are prompted to accept the certificate each time they log on to your site, but they have the option of installing the certificate so that they accept the certificate automatically.

See the IIS documentation for instructions on obtaining and installing certificates.

SSL options   After you have set up a certificate for the server, you can select SSL options for the Web site.

One of the options you can use is 128-bit encryption. This offers a high level of security for data transmissions. Keep in the mind that if you use 128-bit encryption, the user of your site must have a 128-bit version of Internet Explorer, which is not available outside the United States. If you plan to support users from different countries, avoid using 128-bit encryption.

Effects of using graphics   If you use SSL with your Web site, you should put all images of items on your Web server or on another server with SSL. If you have images on a server without SSL, the following message appears each time the user connects to your site:
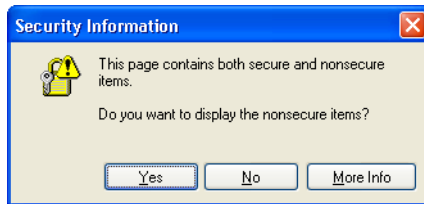
The message indicates that there are elements on the page that are not secure. This does not affect the secure communications between the client system and your Web site. To avoid having the message appear whenever customers enter the site, put all images on your server.

Addresses of the Web Sites

Overview

Introduction   An address of a Web site is based on the IIS application name of the Internet Applications Web site. The Web sites are typically installed in subfolders of \Inetpub\wwwroot. When you access the pages from a browser, replace \Inetpub\wwwroot with the domain name of the Web server.

This section describes how the addresses are determined, so that you can determine what URL to use for the Web sites.

IIS Folder Names

Default IIS application names   The default IIS folder names for the Internet Applications are as follows:

Application	Default Folder
eCustomer	eCustomer
eSalesforce	eSalesforce
Business Insights Dashboard	BusinessInsightsDashboard

Location of files   By default, files for an Internet Application are installed into a folder based on the IIS application name. If you used eCustomer as the IIS application name for eCustomer, the files are installed into C:\inetpub\wwwroot\eCustomer. You can have the files installed into a different folder by using Custom installation. For more information, see *Installing the Software* on page 60.

| **Changes on upgrades** | If you are upgrading from a previous version of the Internet Applications that used the default folder names, the old folders and IIS application names are deleted and new ones are created with the new default names. Be sure to inform your users of the changes and have them update their bookmarks. The Business Insights Dashboard ChartImages folder may remain and requires manual removal. |

Determining the URL

| **Domain and folder names** | The URL for an Internet Application is the following format: |

> http://WebServer/ApplicationName

Where *WebServer* is the Web server domain name and *ApplicationName* is the name of the IIS application name.

For example, if the domain name of the Web server is www.mycompany.com, and you use the default IIS application name, eCustomer, the eCustomer URL is:

> http://www.mycompany.com/eCustomer

Typing this URL opens the default page of the Web site after you finish configuring the Web site.

| **Using different folder names** | During installation, you can select a different IIS application name. If you are running a publicly accessible site, you might choose a more descriptive name than the default. |

Suppose you want to use the following URL:

> http://www.mycompany.com/weborder

In the Installation wizard, enter weborder as the IIS application name for the Web site.

| **Changing the computer name** | Use caution when changing the name of the Web server. After renaming the Web server, edit the anonymous logon account for the Internet Information Services (IIS). Then change the logon to a valid domain and user account. |

Preparing for Installation

3

This section covers prerequisite steps and information that you need before you start installing the Internet Applications. This information affects how the Web site operates, so read this information carefully before installing the Web components.

In this chapter

System Requirements

Overview

Introduction   To ensure a smooth installation, make sure that the servers and workstations you plan to use with the Internet Applications meet the system requirements shown in this section.

Overall System Requirements

Compatibility and Resource Guide   For more information about system requirements, supported platforms, and recommended configurations, refer to the *Sage ERP MAS 500 Compatibility and Resource Guide* located in the Support area of the Sage Online Web site at:

http://support.sagesoftwareonline.com/mas500/support/documents/matrices.cfm

eCustomer Requirements

Required software   To set up customers in eCustomer, you require the Sage ERP MAS 500 Inventory Management and Sales Order modules.

Business Insights Dashboard Requirements

Required software   Business Insights Dashboard requires ASP.NET and AJAX extensions, both of which are installed automatically if your system does not have these installed.

Case Sensitivity

Description   This version of Sage ERP MAS 500 supports case-insensitive SQL Servers only. To upgrade from a case-sensitive server, see your authorized reseller for assistance.

Administrator Requirements

Accounts that need administrator access

Before installing the software, you need to be logged onto the Web server as a local administrator. You also need to make sure that the following user accounts on the server where the Web components will be installed are also configured as administrators:

- IUSR_*computername*

- IWAM_*computername*

Where *computername* is the physical name of the computer. For example, if the name of the computer is WEBSERV1, these accounts would be called IUSR_WEBSERV1 and IWAM_WEBSERV1.

> **Note:** When configuring Internet Information Services (IIS) 7 on Windows Vista and Windows Server 2008, you need to add the IUSR user and the user used in the Application Pool Identity field to have access as an administrator.

Checking the settings

Follow these steps to check the settings:

1   Select Windows Start menu > All Programs > Administrative Tools > Computer Management.

2   In the Tree pane of the Computer Management window, click Local Users and Groups.

3   In the Computer Management window, click Users. A list of user accounts appears. Widen the column if needed to view the entire name.

4   Right-click IUSR_*computername* and select Properties.

5 In the Properties window, click the Member Of tab. Perform the following:

▶ In the Member Of box, click Guest, and then click Remove.

▶ Click Add. From the window that appears, select Administrators and then click Add. Click OK to close the window.

6 Click OK to close the Properties window.

7 Repeat steps 4 through 6 for IWAM_*computername.*

Configure Windows 2003 Server

If you are running Windows 2003 Server, make the following settings in addition to the settings mentioned in *Installing MSMQ for Windows 2003 Server* on page 46.

> **Note:** The following information regarding enabling ASP.NET, Active Server Pages, and WebDAV applies to the Standard and Enterprise editions of Windows 2003 Server.

Enable ASP.NET Use the following steps to enable the ASP.NET component in the Windows Component Wizard.

1 In the Control Panel window, open Add/Remove Programs.

2 In the Add/Remove Programs window, click Add/ Remove Windows Components.

3 In the Windows Components Wizard page, select the Application Server check box, and then click Details.

4 In the Application Server window, select the ASP.NET check box, and then click OK.

Enable the Active Server Pages and WebDAV extensions

Use the following steps to enable the Active Server Pages and WebDAV extensions in the Internet Information Services (IIS) Manager window.

1   In the Control Panel window, open Administrative Tools.

2   In the Administrative Tools window, open Internet Information Services (IIS) Manager.

3   In the Internet Information Services (IIS) Manager window, expand the Web Service Extension folder.

4   Highlight Active Server Pages, and then click Allow.

5   Highlight WebDAV, and then click Allow.

6   Close the Internet Information Services (IIS) Manager window.

Configure Windows 2008 Server

If you are running Windows 2008 Server, make the following settings in addition to the settings mentioned in *Installing MSMQ for Windows 2008 Server* on page 47.

Enable ASP.NET

Use the following steps to enable the ASP.NET component.

1   In the Administrative Tools window, open Server Manager.

2   Select the Roles folder, and click Add Role Services.

3 In the Select Server Roles window, select the Web Server (IIS) check box, and click Next.
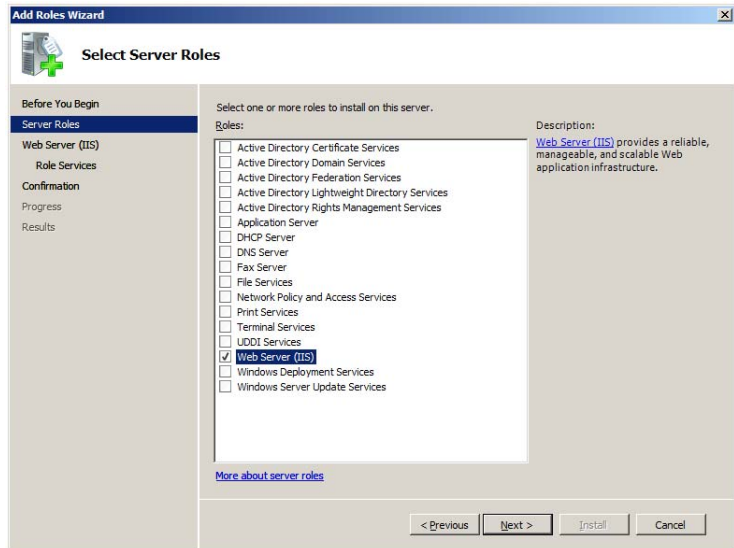
4 In the Web Server (IIS) window, click Next.

5 In the Select Roles Services window, select the ASP.NET and ASP check boxes, and then click Next.
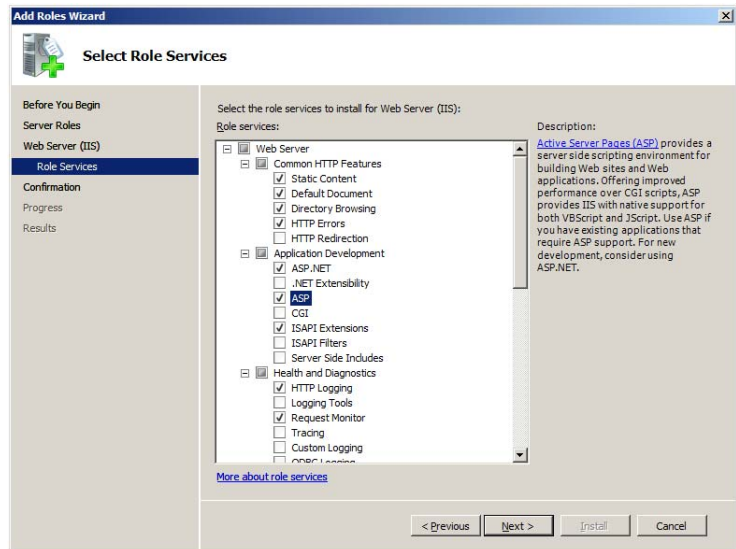
6 In the Confirm Installation Selections window, click Install.

Installing Required Software

Overview

Introduction
Before installing the Internet Applications, you need to install the software as shown in following sections:

This section covers issues you need to know when installing this software for use with the Internet Applications. For more information about installing these products, refer to the applicable installation documentation.

Installing MSMQ for Windows 2003 Server

Introduction
You need to have Microsoft Messaging Queue (MSMQ) on the Web server before you can install the Internet Applications. If MSMQ is not installed on the Web server, a message appears when you start the Internet Applications installation prompting you to install MSMQ.

Procedure
Follow these steps to install MSMQ:

1 In the Control Panel window, open Add/Remove Programs.

2 In the Add/Remove Programs window, click Add/Remove Windows Components.

3 Select the Message Queuing check box, and click Details.

4 When the Message Queuing window appears, clear the Active Directory Integration check box, and then click OK.

5 As you run the Windows Component Wizard, use the default settings, except for the settings that you already set in steps 3 and 4 (keep the Message Queuing check box selected and the Active Directory Integration check box cleared).

6 When you have selected your options, click Finish to add the components. Reboot the system, if directed.

Installing MSMQ for Windows 2008 Server

Introduction You need to have Microsoft Messaging Queue (MSMQ) on the Web server before you can install the Internet Applications. If MSMQ is not installed on the Web server, a message appears when you start the Internet Applications installation prompting you to install MSMQ.

Procedure Follow these steps to install MSMQ:

1 In the Administrative Tools window, open Server Manager.

2 Select the Features folder, and click Add Features.

3 In the Select Features window, scroll down the list of component to Message Queuing.

4   Select the Message Queuing Services check box, and click Next.
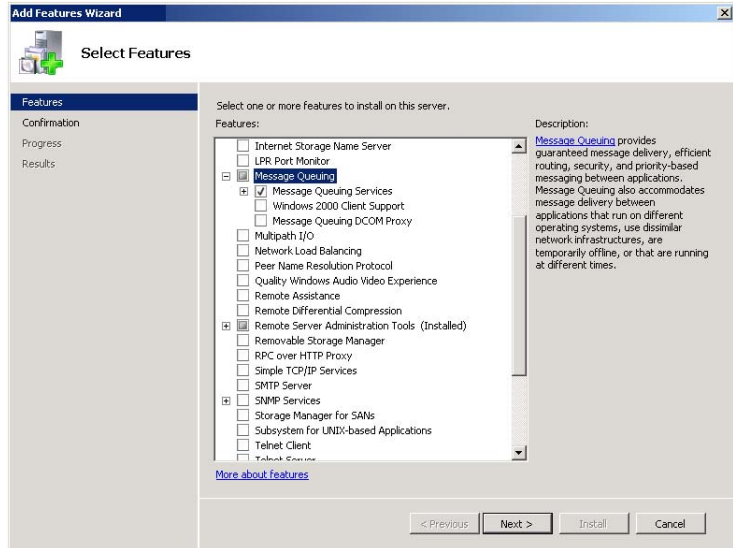
5   When you have selected your options, click Install. Reboot the system, if directed.

Installing and Upgrading Sage ERP MAS 500

General installation steps

Installing Sage ERP MAS 500 and the Internet Applications consists of installing or upgrading Sage ERP MAS 500, and installing and configuring the Internet Applications on the Web server. For complete installation instructions for Sage ERP MAS 500, refer to the *Installation and System Configuration* guide.

The following chart shows an overview of the installation and configuration process.

Make sure Web server meets requirements and has MSMQ

Are you upgrading an existing Sage ERP MAS 500 system?

Do you have all of the Internet Applications?

Yes

Yes

No

No

Install Sage ERP MAS 500, including all databases

Upgrade Sage ERP MAS 500 and install the needed databases

Upgrade Sage ERP MAS 500, including all databases

Install the Internet Applications

Back up your existing Internet Application sites before installing the new version

Configure security on IIS

Configure data link between Web sites and Sage ERP MAS 500 databases

Use site configuration pages to start site and select company

Customize the site to use your company name and colors

Set site options in Sage ERP MAS 500

Required tasks Before installing the Internet Applications, install or upgrade Sage ERP MAS 500. Follow the instructions in the *Installation and System Configuration* guide and be sure to perform the following:

- For a new installation, install new system, application, and Internet application databases. For an existing installation, upgrade the current system and application databases to the new version and install an Internet application database on the same SQL Server.

- Install the Sage ERP MAS 500 client software on at least one system. For eCustomer only, the system needs to have NetBIOS access to the shared folder for inventory images either through the network or a VPN. For information, see *Using the Folder for Item Images* on page 90.

- Register and activate the applicable modules:

eCustomer	eSalesforce	Business Insights Dashboard
Accounts Receivable	Accounts Receivable	Accounts Receivable
eCustomer		Cash Management
Sales Order		Business Insights Dashboard *****
Inventory Management		General Ledger
		Inventory Management
		Sales Order

* Only Business Insights Dashboard is required to be registered and activated. The other modules listed under Business Insights Dashboard provide data for Web Parts. Activate only the modules you purchased. Business Insights Dashboard Web Parts show data only for modules you registered and activated.

Note: There are no eCustomer, eSalesforce, and Business Insights Dashboard links on the Sage ERP MAS 500 Desktop. These modules refer to the Web components and features in Sage ERP MAS 500 modules to support the Web site.

- Make sure your sales order system is set up correctly. See the *Sales Order*, *Accounts Receivable*, and *Inventory Management* Help system for information on which options need to be configured.

Security rights required

Users who administer and configure the Internet Applications need access rights to several tasks in Sage ERP MAS 500. The following table lists the minimum set of tasks that require Normal access rights for each of the Internet Applications.

Module	eCustomer	eSalesforce	Business Insights Dashboard
Common Information	CI External User List CI Maintain External Users CI Maintain Non-Stock Items CI Options Setup	CI Contact Maint CI Options Setup	CI Options Setup
Accounts Receivable	AR Customer Maint	AR Customer Maint AR Salesperson Maint	
Inventory Management	IM Maintain Items IM Product Category List IM Set Up Product Categories		
Sales Order	SO Entry		

Chapter 3

Installing Internet Applications

4

This chapter shows you how to install the Internet Applications.

In this chapter

Web Component Installation

Overview

Introduction   After the Web server is ready, run the installation wizard to install the Web components with the parameters you specify.

Method of Installation

Description   You can install the Internet Applications using the Internet Applications Installation wizard, which allows you to install the Internet Applications alone. Use this wizard for installing a production system.

For information about this installation method, run the Installation Advisor from the Installation screen or refer to the *Installation and System Configuration* guide.

Pre-Installation Checklist

Introduction   Before you begin installing the Internet Applications, make sure you have the following information. See the indicated pages of the Internet Applications guide for details.

Checklist   Complete the following checklist:

Information		See
Applications to install	• All (Can use Complete installation)	
	• eCustomer alone or with another application (Use Custom)	
	• eSalesforce alone or with another application (Use Custom)	
	• Business Insights Dashboard alone or with another application (Use Custom)	
IIS application names	eCustomer _____ eSalesforce _____ BusinessInsightsDashboard _____	
Sage ERP MAS 500 databases	_iapp _____ _app _____ User name for databases _____ Password for user _____	

Settings Generated Automatically by the Installation

Description

This section describes the settings that are generated automatically by the eCustomer and eSalesforce installation. You can change these settings after the installation if needed. These include:

- Default Windows user for launching COM+ applications.

- Default data link user for linking Sage ERP MAS 500 databases to the Internet Applications.

Default COM+ user

COM+ applications are usually in Interactive User mode, which means that they are not started until a user physically logs into the Windows Server where the Web server is located. To start COM+ applications automatically whenever the Windows Server is booted (whether or not someone logs on), the Internet Applications installation creates a default dedicated user logon. You can use it or assign it to another user.

The default COM+ user created by the installation is MAS_500_USER and has a randomly generated password.

Default data link user

To link the databases to the Internet Applications, the installation creates a data link configuration file for each Internet Application. These files have .udl extensions.

The installation program also creates a default user on the SQL Server called IAppUser. This has a randomly generated password.

Assigning the COM+ user to the data link

The default COM+ user and default data link user created by the installation are separate and do not need to be connected.

To create a trusted connection, you can assign the default COM+ user in the data link configuration file, but you need to grant the COM+ user access rights to the SQL Server. For instructions on doing this, see the Microsoft documentation.

Starting the Internet Applications Installation Wizard

Introduction

This section describes how to install the Internet Applications by using the Installation wizard.

Ways of starting the Installation wizard

To start the Internet Applications Installation wizard, perform one of the following:

- Insert the Sage ERP MAS 500 DVD-ROM into the DVD-ROM drive. From the installation window that appears, click Internet Applications.

- Use Windows Explorer to navigate to the InternetApps folder on the DVD-ROM. Run Setup.exe.

- If you send the installation files to an ISP by FTP, have them copy all the files to the same folder. Then, have them run Setup.exe.

Use of Windows Installer

All Sage ERP MAS 500 installation programs use the Microsoft Windows Installer engine. The installation program uses the latest version of the Windows Installer engine if it is already on the system; however, if it is not currently on the system, a message appears indicating that the Windows Installer engine is installing. It may take a moment to install the software, and then the installation starts.

The installation program also installs Microsoft .NET Framework if it is not already installed on the system.

Installation Wizard opening screen

When the Internet Applications installation starts, the following window appears:
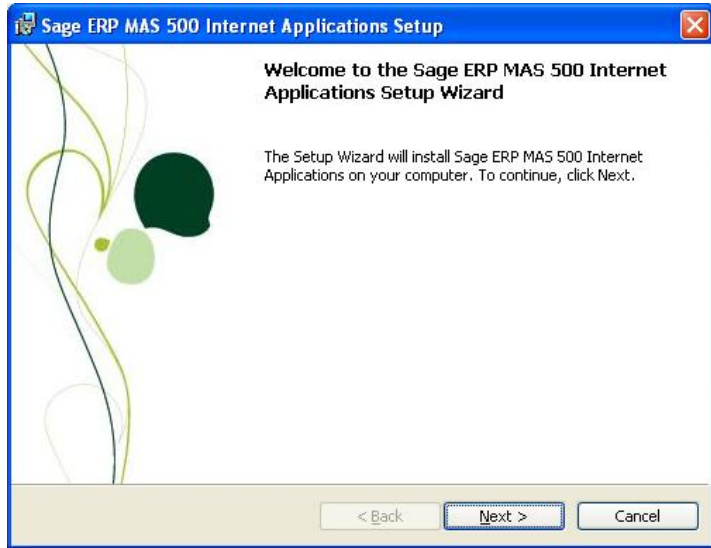
Click Next. To continue with the installation, see the section, *Installing the Software*.

Uninstallation of Prior Versions

What gets removed

If you have an earlier version of the Web components on your system, the installation wizard detects it and prompts you to remove it before you install the new software. Removing an earlier version does the following:

Removed	Not Removed
All files that were installed. including HTML pages, graphics, scripts	Pages added to the site
	Customized pages
Customized pages that have the same names as the original	Queues
	Business Insights Dashboard ChartImages folder
COM+ applications and packages	Digital Dashboard
Service packs and monthly updates added to the installation	

Click Remove to uninstall the old software. The wizard then starts the installation process.

> **Important:** The old folders and IIS application names are removed and new ones are created using either the new default names or the names you specified. For more information, see *IIS Folder Names* on page 37.

Installing the Software

Procedure
Use the following procedure to install the Internet applications.

1 In the Welcome screen, click Next.

2 Review the license agreement that appears on the Customer Information page. Then, select "I accept the terms in the license agreement" and click Next to continue.

3 You are prompted to enter your information. The fields display the name and organization as recorded in the Windows Registry. You can change this information as needed and select whether the software is available to all users or just yourself. Click Next to continue.
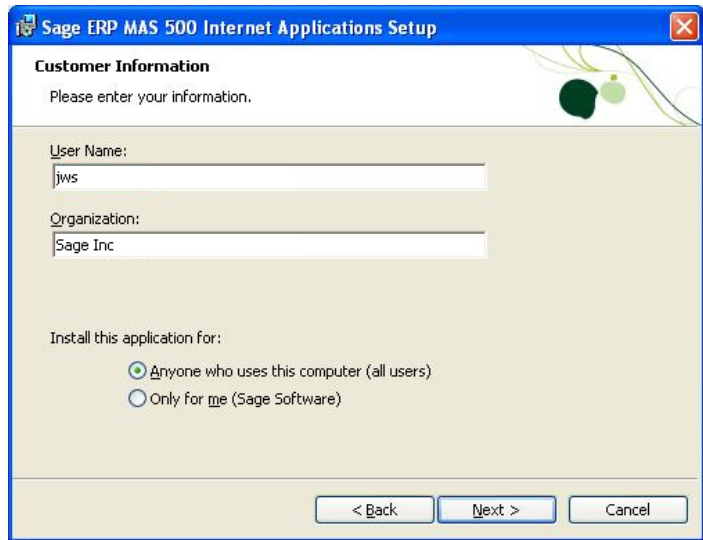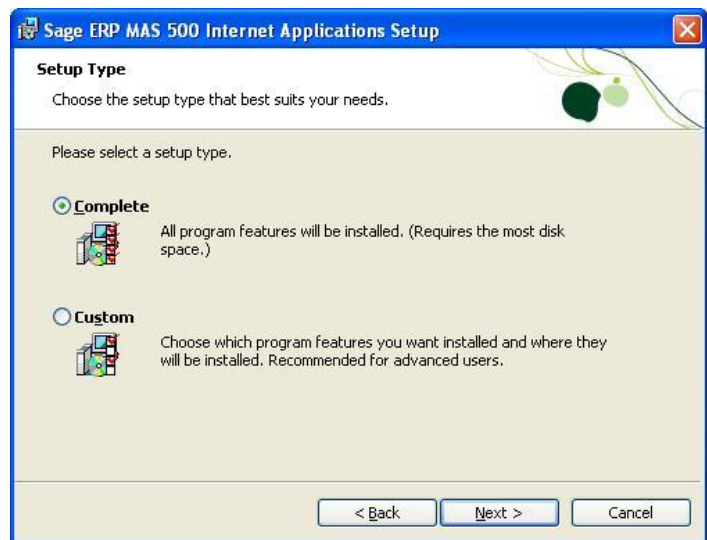

4 The following setup options are available:

▶ Complete: Installs all components into their default folders. Use this option if you want to be sure you are installing all files and have sufficient space on drive C. For more information, see *IIS Folder Names* on page 37.

▶ Custom: Allows you to select which components to install and the drive and folder where files will be installed. Use this option if you are limited on disk space or want more control over the installation. eCustomer and eSalesforce are installed in folders based on their IIS application name; Business Insights Dashboard is installed in the BusinessInsightsDashboard folder under the folder you selected.

**Important:** Use the Custom option if you do not want to install all of the Internet Applications or if the default installation is not an NTFS volume. Installing the Internet Applications on an NTFS volume is not required, but it enables you to take full advantage of security features.

Select the option and click Next.

If you selected Custom, go to the next step. If you selected Complete, go to step 6.

5 If you select Custom, the following page appears:
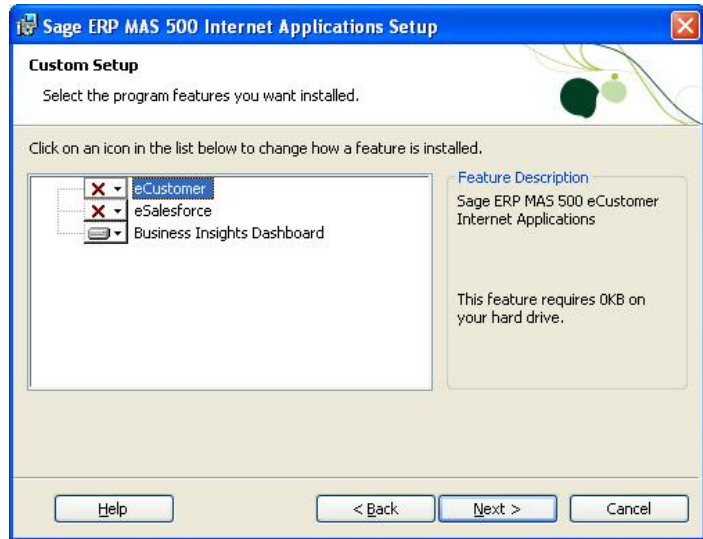
Complete the page as follows:

▶ By default, all Internet Applications are installed. If you do not want to install a module, click it and select "This feature will not be available" from the menu that appears. To install the feature, select "This feature, and all subfeatures, will be installed on local hard drive."

▶ To change the drive and path where the Internet Applications will be installed, click Change. Click Space to see how much space is available on your drives and how much space will be used by the database installation software. Note that some files will be installed on the local hard drive.

Click Next to continue.

6 If you are installing eCustomer, the Installation Requirements page appears.

Enter the following for eCustomer:

▶ The IIS application name for eCustomer. This is used as the name of the folder where the Web components are installed and to identify the Web site in IIS, queues, and other places in the system.

▶ The name of the SQL Server and the Sage ERP MAS 500 database you are using. Enter the name of the Internet Applications database (_iapp).

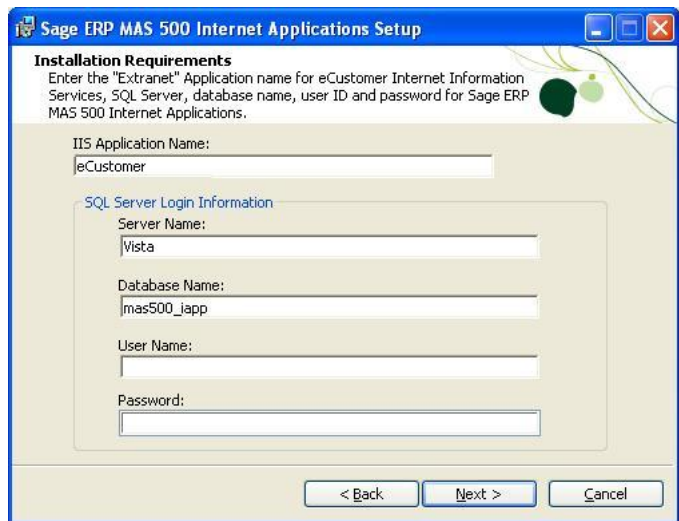▶ A user name and password for that database.

Click Next to continue.

7 If you are installing eSalesforce, the Installation Requirements page appears.

Enter the following for eSalesforce:

▶ The IIS application name for eSalesforce. This is used as the name of the folder where the Web components are installed and to identify the Web site in IIS, queues, and other places in the system.

▶ The name of the SQL Server containing the Sage ERP MAS 500 database you are using. If you have already selected a server for eCustomer, it will display in this field and must be used.

▶ The name of the application (_app) Sage ERP MAS 500 database you are using. The database must be on the indicated or selected SQL Server.

▶ A user name and password for that database.

Click Next to continue.
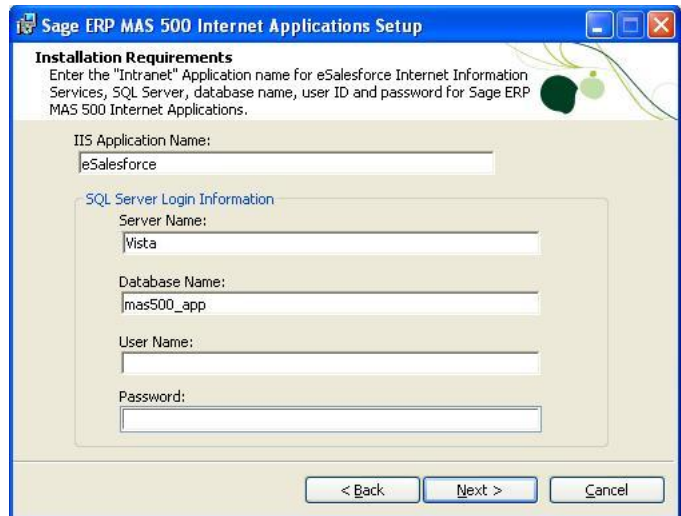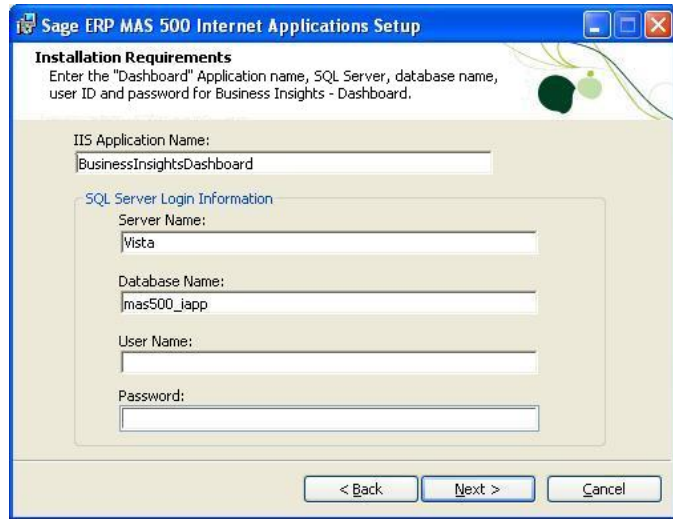
8 If you are installing Business Insights Dashboard, the Installation Requirements page appears.

Enter the following for Business Insights Dashboard:

▶ The IIS application name for Business Insights Dashboard. This is used as the name of the folder where the Web components are installed and to identify the Web site in IIS, queues, and other places in the system.

▶ The name of the SQL server containing the Sage ERP MAS 500 database you are using. If you have already selected a server for other Internet applications, it will appear in this field and must be used. For more information on securing your connection, see Chapter 7, *Configuring Business Insights Dashboard*.

▶ The name of the application (_app) Sage ERP MAS 500 database you are using. The database must be on the indicated or selected SQL Server.

▶ A user name and password for the application
database.

Click Next to continue.

9 In the Ready to Install the Program page, click Install to install the software.
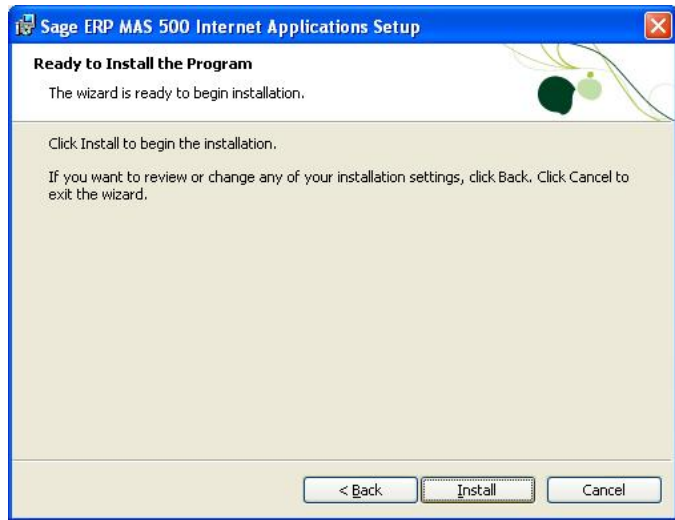
10 In the final page that appears, click Finish.
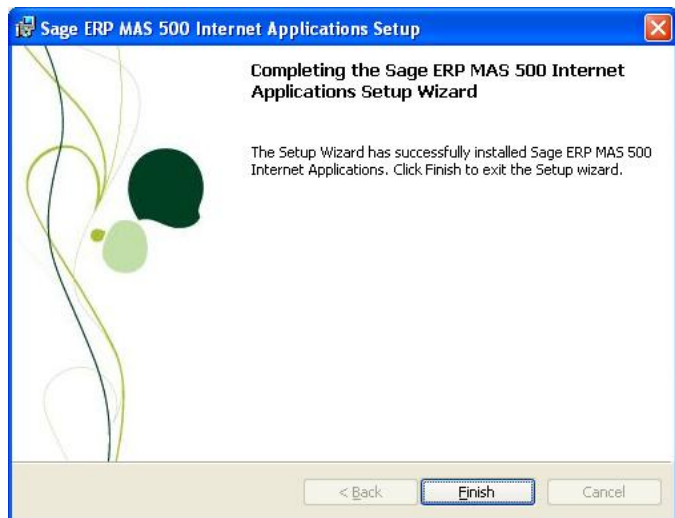
Changing the Installation

Introduction   You can remove Web components, change the configuration, or reinstall components by running the Installation wizard. When you run the wizard on a system that already has the the Internet Applications installed, the wizard presents an appropriate set of options.

Procedure   Follow these steps to run the client installation to make changes:

1   Start the Installation wizard as shown in *Settings Generated Automatically by the Installation* on page 56. When the Installation wizard starts, click Next to continue.

2   The following page appears:
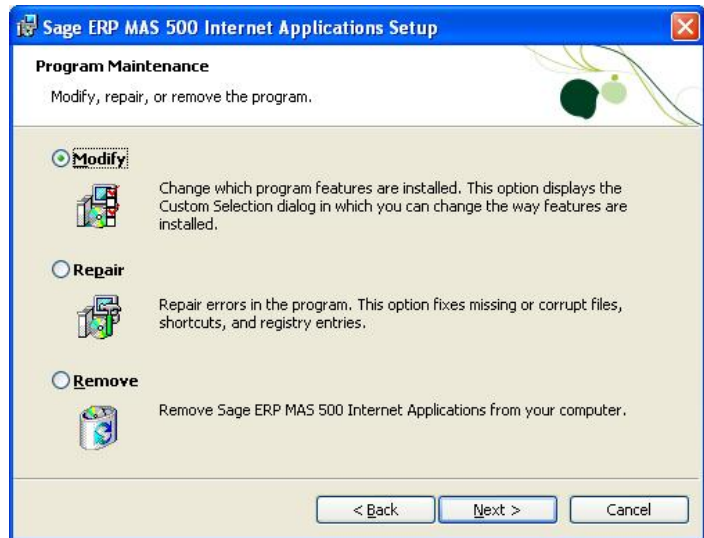
Note: Selecting Remove from this screen does not uninstall service packs, monthly updates, or hot fixes you added to the current version of the Web components. If you are running the installation wizard to update an older version, clicking the Remove button does remove those items.

Select the desired option:

▶ To change the installation, select Modify.

▶ If you experienced problems with the software or need to repair a corrupted installation, select Repair. This reinstalls any missing or damaged files.

▶ To uninstall the software from the system, select Remove.

3 A screen appears where you can confirm your action. Click Install (for Modify or Repair) or Remove to proceed.

Configuring Internet Applications

Overview

Introduction You need to configure the Web components to connect to the Sage ERP MAS 500 databases, set up the security, open the Web site, and set general options in Sage ERP MAS 500.

Follow all of the procedures in this section in the order listed in the following sections:

Setting Web Site Security

Introduction   Run the Internet Information Services Manager to check security and other Web site settings. You can use the standard security or add other levels of security. For more information, see *Security* on page 32.

> **Note:** If you are setting up the Web site security for a Windows 2008 Server, refer to the *Setting Web Site Security on Windows 2008 Server* on page 73.

Procedure   To set security options, perform the following:

1   Select Windows Start menu > All Programs > Administrative Tools > Internet Information Services.

2   Look for the name of the Web site and right-click it. From the menu that appears, select Properties. The following window appears:
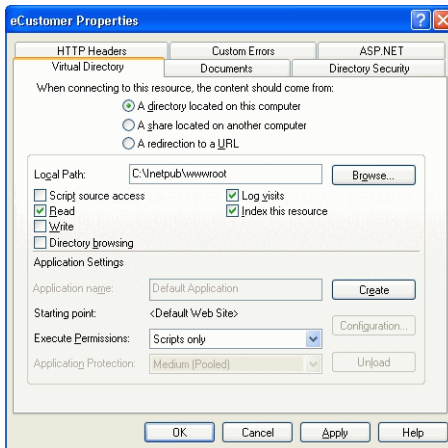
From this window, set the options you need for the site as shown in the following sections.

Setting up standard security

To use standard security, follow these steps in the Web site Properties window.

1   Click the Directory Security tab. Under "Anonymous access and authentication control," click Edit. The following window appears:
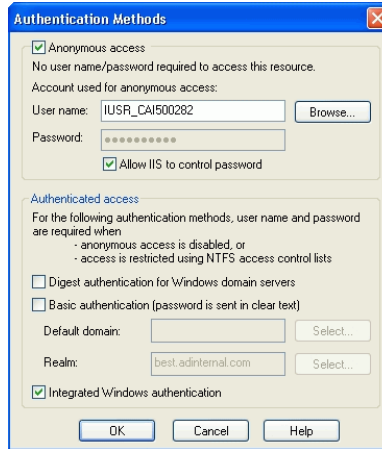
2   Depending on the Web site you are configuring, set the options as follows:

   ▶   eCustomer: Select the Anonymous access and Integrated Windows authentication check boxes.

   ▶   Business Insights Dashboard and eSalesforce: Clear the Anonymous access check box. Leave the Integrated Windows authentication check box selected.

3   Click OK to accept the changes.

Setting up authenticated access

For additional security for the Web server, you can set up IIS to authenticate people using the site. Users first need to log on to the Web server and then log on to the Web site. The logons are separate and unlinked. They can be different for the same customer. See the IIS documentation for instructions.

Setting Web Site Security on Windows 2008 Server

Introduction   Run the Internet Information Services Manager to check security and other Web site settings. You can use the standard security or add other levels of security. For more information, see *Security* on page 32.

Procedure   To set security options, perform the following:

1   Select Windows Start menu > All Programs > Administrative Tools > Server Manager.

2   Select Roles folder > Web Servers (IIS) > Internet Information Services (IIS) Manager.

3   Select the application to configure, and double-click Authentification.
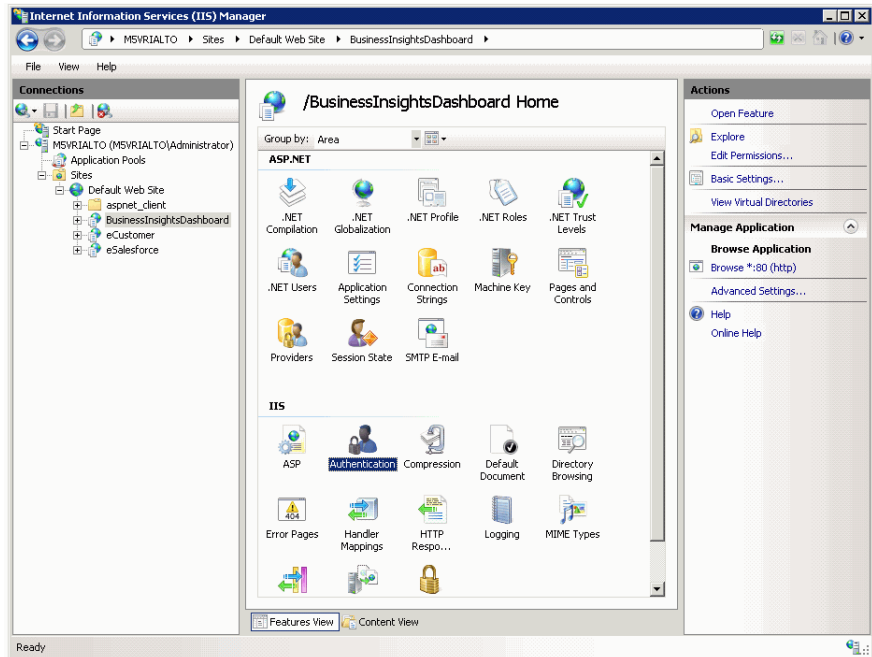
4   Enable the appropriate security model for your application, and close the window.

Securing Specific Pages and Folders

Introduction

To prevent pages and folders from being used by unauthorized people, apply security to them through IIS. If you installed the Internet Applications on an NTFS volume, you can limit access to specific users or groups using NTFS security permissions.

Setting authenticated access in IIS

The first step in securing pages is to require authenticated access. An external user must log on with a valid user name for the Web server or its domain to gain access to the files.

To run Internet Information Services (IIS) Manager, follow the procedures in *Setting Web Site Security* on page 71. Then, perform the following:

1   In the Tree pane, expand the listing for the Web site. One of the folders in the listing is Administration. You can set security for an entire folder or individual files.

2   Right-click the folder or the file, and from the menu that appears, select Properties.

3   In the Properties window that appears. Click the Directory Security tab. Under "Anonymous access and authentication control," click Edit.

4 In the Authentication Methods window that appears, remove checks from all boxes, except Integrated Windows authentication, as shown in the following figure:
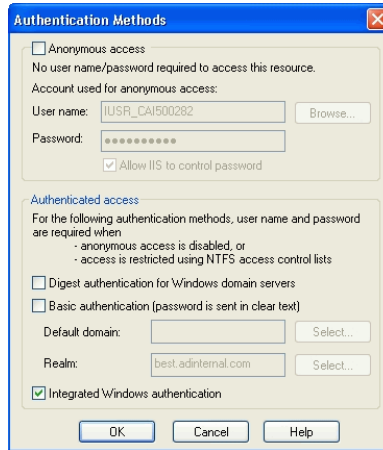
Note: If you are not using SSL, you will receive a warning that your password might be examined during authentication. Click Yes to continue.

5 By default, the system uses the local Windows domain where there Web server is located to authenticate. To authenticate using another domain, click Edit. In the dialog box that appears, select the domain to use and click OK.

6 Click OK to close the Authentication Methods dialog box. Then close Internet Information Services.

Limiting access to the file or folder

IIS only enables you to limit access to a folder or file to authenticated users of the Web server or domain. To restrict access to certain user groups, you need to set file sharing options in Windows Explorer. These options are available if you installed the Web components on an NTFS volume.

Follow these steps:

1   In Windows Explorer, navigate to the folder or files for which you want to control access.

2   Right-click the folder or file. From the menu that appears, select Properties.

3   In the Properties window that appears, click the Sharing tab.

4   Select "Share this folder." You can then set options for controlling access.
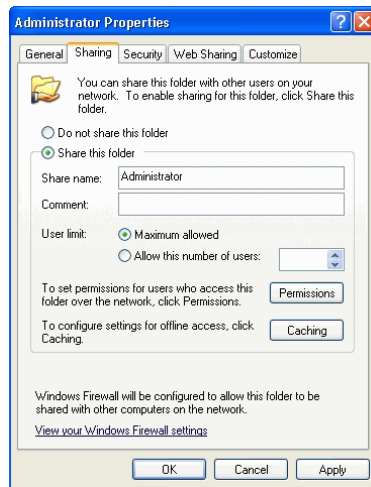
5 Click Permissions. The following window appears:
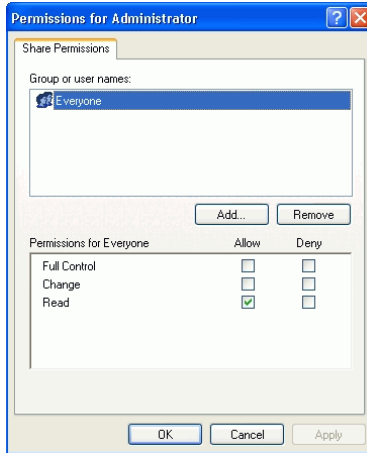
Select Everyone. In the Permissions box, select the Deny check boxes for all types of permissions.

6 Click Add. The following window appears:
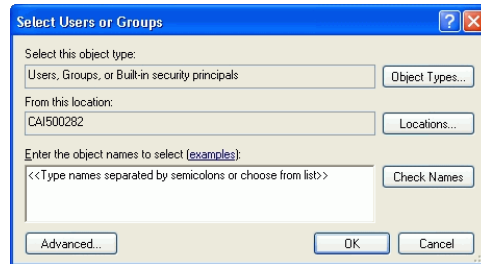
Select the computer or domain at the "Look in" field, and then select the users or user groups to which you want to grant access and click Add. Click OK when you are finished.

7 In the Permissions window, select the users or groups to which you want to grant access. Select the Allow check boxes for those users and groups. Click OK when you are finished.

Setting Site Options in Sage ERP MAS 500

Procedure

Use the Common Information (CI) module for general settings for all Internet Applications. Follow these steps in Sage ERP MAS 500:

1 Select Common Information Maintenance menu > CI Setup > Set Up CI Options. The following window appears:

Finish and Exit
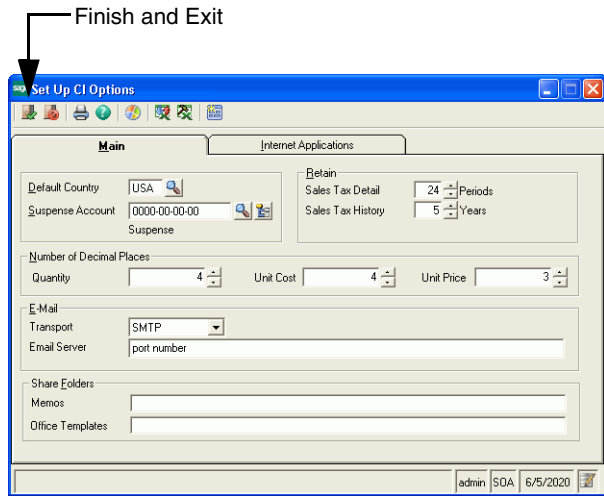
2 Click the Internet Applications tab. The following fields appear:

Complete the tab with the information for your configuration. For more information, refer to the Help system.

Important: The Inventory Images Share Name is required and should refer to a folder available on the network. For more information, see *Using the Folder for Item Images* on page 90.

3 If you are using Business Insights Dashboard, set the update schedule and make sure that the SQL Server Agent is running. For more information, see *Setting SQL Server Schedules* on page 80.

To update Business Insights Dashboard data without scheduling, click Update Now.

4 When you are finished, click the Finish and Exit button.

Setting SQL Server Schedules

Introduction   For tasks with data from SQL Server databases, such as data for Business Insights Dashboard Web Parts, you can set an update schedule so that the data is updated automatically at the intervals you set. For more information about SQL Server scheduling, see *SQL Server Books Online*.

Procedure   Follow these steps to set the schedule:

1   On the Internet Applications tab in Set Up CI Options, click Change Schedule. The following window appears:
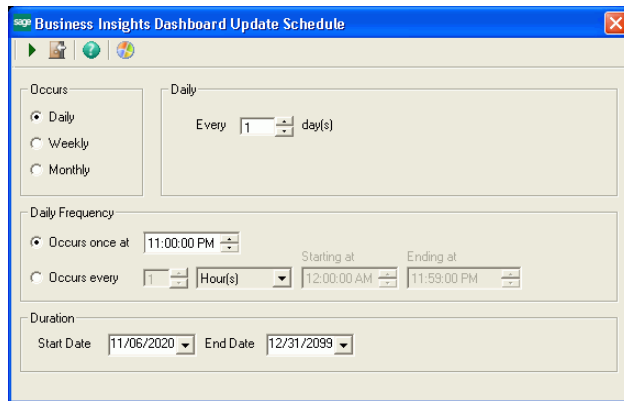
2   In the Occurs section, choose one of the following options. The section to the right of Occurs changes according to the option you select.

   ▶   Select Daily to pick a frequency of days, such as every day or every two days.

   ▶   Select Weekly to select a frequency of weeks and the days of the week that the export takes place, such as every two weeks on Monday, Wednesday, and Friday.

   ▶   Select Monthly to select a specific day in the month and an interval of months, such as the second day every three months or the third Sunday every month.

3 In the Daily Frequency section, select the time and frequency of the backup on the days you selected. Perform one of the following:

  ▶ To perform the export only once, select "Occurs once at" and select the time.

  ▶ To perform the export several times a day, select "Occurs every" and select the frequency and the period of time that the export occurs.

Note: For the purpose of scheduling, midnight is 12:00 A.M. and noon is 12:00 P.M. The day ends at 11:59 P.M.

4 In the Duration section, indicate the period that the task takes place. If you do not want to specify a limited time, leave the fields at their defaults of the current date as the start date and December 31, 2099 as the end date.

5 Click Update to accept the changes. The schedule portion of the tab indicates the new setting and the last time it was run, as in this example.

Business Insights Dashboard Update Schedule

Current Schedule : Daily At 11:00 PM

Update Now

The Business Insights Dashboard data load process has not been run yet.

Change Schedule
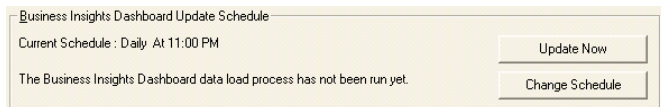
Running SQL Server Agent

To perform scheduled tasks, the SQL Server Agent must be running. Use SQL Server Enterprise Manager to perform the following:

1 In the Tree pane, expand the listing of the SQL Server. Expand the Management folder to reveal SQL Server Agent as shown:

2 If a green arrow appears in the icon for SQL Server Agent, it is running. If there is a red square, you need to start the service. Right-click the icon, and from the menu that appears, select Start.

If you need information about using SQL Server Agent automatically, see *SQL Server Books Online*.

Viewing the scheduled events

Data update tasks are added to the jobs for the SQL Server Agent. To view these tasks, use SQL Server Enterprise Manager.

Setting SQL Server Schedules for an Express Installation

Introduction   When installing Sage ERP MAS 500 Express, the SQL Server Agent is not installed. You can set an update schedule for Business Insights Dashboard so that the data is updated automatically at the intervals you set. For more information about SQL Server scheduling, see *SQL Server Books Online*.

Procedure   Follow these steps to set the schedule:

1   Select Windows Start menu > All Programs > Accessories > System Tools > Task Scheduler.
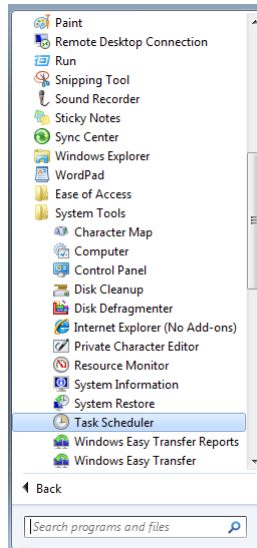
2 Select the Actions menu and click Create Task. The following window appears:
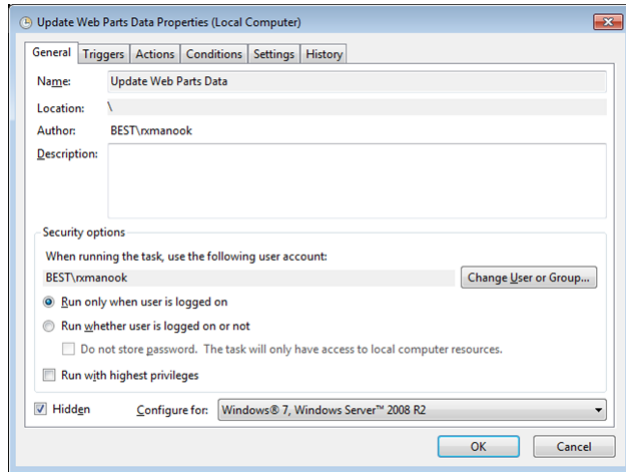
3 At the Name field, enter Update Web Parts Data.

4 In the Security Options section, select the appropriate user or group. If you are using a trusted connection, make sure this user or group can log on to SQL Server.

5 Select the Hidden check box and configure the security options for the appropriate operating system.

6 Click the Triggers tab. Click New to configure the schedule type. The following window appears:
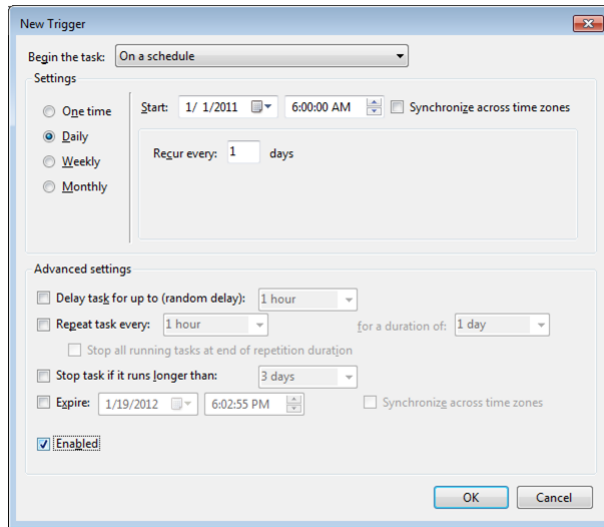
7 Select the appropriate settings to run the schedule and click OK.
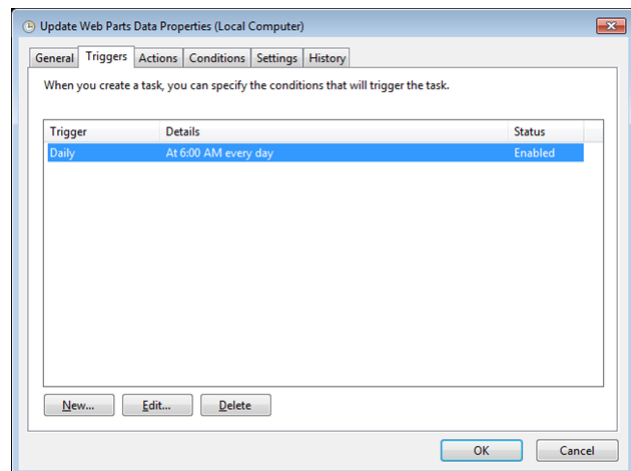
Click Edit, to change the schedule configuration.

8   Click the Actions tab. Click New to configure the task to execute. The following window appears:
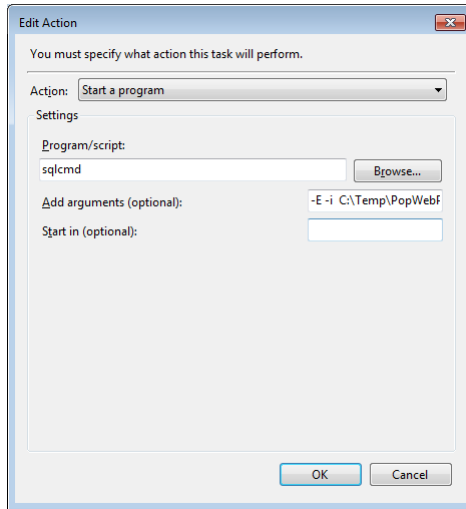
9   Select the action and script to execute using a trusted connection and click OK.
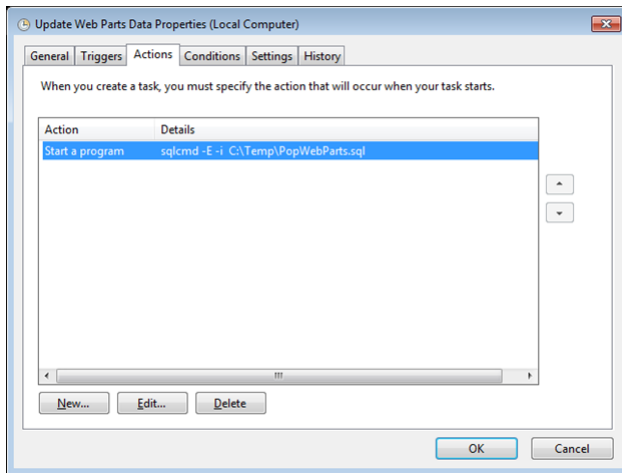
You can also assign the script to execute for a specific SQL user.

10   Click OK.

PopWebParts.sql contents

The PopWebParts.sql file contains the following web parts. Replace the mas500_app with the appropriate database name.

- Exec mas500_app..spbpPopWPFinancialInfo
- Exec mas500_app..spbpPopWPCashFlowProjections
- Exec mas500_app..spbpPopWPInvoiceAnalysis
- Exec mas500_app..spbpPopWPInventoryAnalysis
- Exec mas500_app..spbpPopWPIncomeTrend
- Exec mas500_app..spbpPopWPTopInventoryItems
- Exec mas500_app..spbpPopWPTopCustomers
- Exec mas500_app..spbpPopWPDailySalesOrdSummary
- Exec mas500_app..spbpPopWPCustTransSummaExec

Continuing the System Configuration

Where to find procedures

To continue configuring the Internet Applications, use Sage ERP MAS 500 to set options for the Web site. See the following chapters:

- For eCustomer, see Chapter 5, *Configuring the System for eCustomer*.

- For eSalesforce, see Chapter 6, *Configuring the System for eSalesforce* to complete the configuration.

- For Business Insights Dashboard, see Chapter 7, *Configuring Business Insights Dashboard*.

Chapter 4

Configuring the System for eCustomer

5

You need to set up options in Sage ERP MAS 500 to use eCustomer. These include:

- Setting general options, such as the server and database used by eCustomer and search settings.

- Creating product groups for organizing merchandise on the Web site and assigning graphics to them.

See the following sections for instructions on performing these tasks. For more information about individual windows, refer to the online Help.

In this chapter

Setting Up the eCustomer Web Site

Overview

Introduction This section shows you how to configure the eCustomer Web site. This process consists of the following tasks that need to be performed on the Web server and in Sage ERP MAS 500:

- On the Web server:
  - ▶ Make sure that a folder is set up for inventory images.
  - ▶ Use the Site Maintenance page to select the database and company used by the site and set the site status.
- In Sage ERP MAS 500: Make sure you have Set Up CI Options to set site options. For more information, see *Setting Site Options in Sage ERP MAS 500* on page 78.

Using the Folder for Item Images

Introduction The Web site uses the InventoryImages folder to store images of items to appear in the Web site. You can also use images on the Internet at their present location. For more information, see *Adding Images and Descriptions to an Item* on page 107.

Requirements You need to do the following with InventoryImages before using it:

- Keep the folder with the name InventoryImages and in its location within the Web site folder. Do not move or rename it.

- Set the folder up as a shared folder that can be accessed by Sage ERP MAS 500 client systems. You can use any name you want as the share name. See the Windows documentation for instructions on setting up shared folders in Windows Explorer.

- Make sure you have NetBIOS access to the shared folder either through the network or a VPN. You need NetBIOS access to be able to maintain the graphic files.

Designation of folder

In the path to the images folder, use the UNC (Universal Naming Convention) designation of the drive. Mapped drive letters are also supported, but using them requires all users to map the folder to the same drive letter.

Setting up the folder

In Common Information, enter the name of the shared folder so that images are linked to items in the database. For instructions, see *Adding Images and Descriptions to an Item* on page 107.

Configuring the Web Site

Introduction

Use the Web Site Maintenance page to select the company and open the Web site for business. You can also use this page to perform the following:

- Open or close the store, as shown in *Managing the Site* on page 93.

- Process transactions that cannot be processed as shown in *Processing Orders in Queues* on page 183.

You can open the page either remotely from a browser or from the Web server.

Procedure

Follow this procedure.

1   Do either of the following:

   ▶   To launch the page from the Web server: Select Windows Start menu > All Programs > Sage ERP MAS 500 Internet Applications > eCustomer > eCustomer Site Maintenance.

▶ In Internet Explorer, open the following Web page:

**http://server/folder/administration/
sitemaint.asp**

Where *server* is the Web server and *folder* is where
the eCustomer Web components are installed. For
an explanation of how the address of the site is
determined, see *Determining the URL* on page 38.

The following Web page appears.
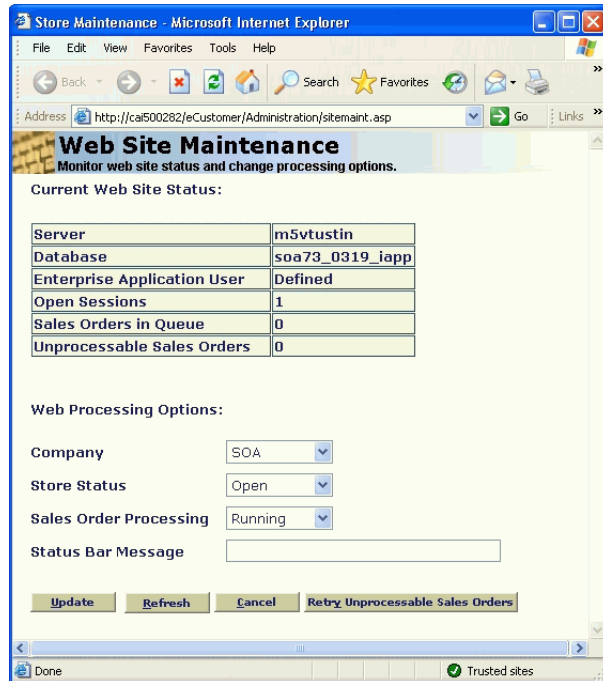
2 Select the company. The Web site supports only one
company at a time.

Note: If the company you want does not appear in
this field, it means that eCustomer has not been
activated for that company. For more information,
refer to the *Installation and System Configuration*
guide.

3 Click Update to make the change.

| When changes take effect | If there are people using the Web site when you make changes, they will see and use the new settings as they refresh data in the browser and process information. |

Managing the Site

| Introduction | The eCustomer Web site enables you to open or close the order entry portion, enable or disable order processing, and specify a message describing the status of the site. You perform these functions through sitemaint.asp. |

| Setting site status | To open sitemaint.asp, see the instructions in *Configuring the Web Site* on page 91. Set the Web Processing Options fields as follows: |

Field	Options
Company	Select the current processing company from those in the Sage ERP MAS 500 Internet application database.
Store Status	Closed: Users cannot log on to the order entry portion of the Web site.
	Open: Users can log on.
Sales Order Processing	Running: Orders from the Web site are being processed and updating the databases.
	Stopped: Orders can still be accepted from the Web site, but the databases are not being updated.
Status Bar Message	Type a message of up to 128 characters to appear on the status bar of the user browser. This field should only be used to provide important messages to users. Because this message is not saved in the database, it should not be used for long-term advertising.

Closing the Web site

If you set the Store Status to Closed, the following page appears when users click Login:
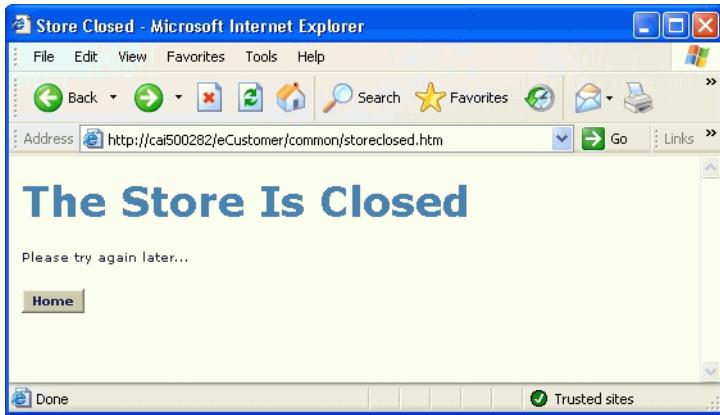
Customizing the Store Closed page

You can customize this page (/Common/StoreClosed.htm) to give additional information. For information about changing this and any of the pages on the Web site, see Chapter 10, *Customizing eCustomer and eSalesforce*.

Diagnosing processing issues

Sitemaint.asp also provides status on the operation of the Web site. If customers are placing orders but the database is not being updated, make sure that the Sales Order Processing field is not set to Stopped. If it is, set it to Running. For more information, see *Diagnostic Web Pages* on page 174.

Making Items Available for Sale

Overview

Introduction   To make items available for sale through the eCustomer Web site, perform the following:

- Create or modify the inventory or noninventory item with the necessary settings.

- Assign the item to at least one product category. Product categories enable you to organize items so that they are easy for customers to find. The product categories you set up for eCustomer can also be used in Sales Order and Purchase Order entry.

Before you begin, refer to the Inventory Management Help system.

Selecting Items to Sell

Requirements   To enable an item to be sold through the Web site, perform the following:

- Assign inventory items to at least one warehouse. Customers will only see on the Web site inventory items at their assigned warehouse. This rule does not apply to non-inventory items.

- Set up the pricing structure and set prices for the items you want to sell through the Web site.

- Assign inventory and non-inventory items to a sales tax class so that they can be processed in Sales Order.

- On the Maintain Items UOM tab, select the Use For Sales check box. The box must be selected for at least the standard Sales unit of measure and for any units of measure you plan to use on the eCustomer site.

Structure of Product Categories

Introduction   Product categories enable you to organize items to make them easy for customers to find on your Web site. This section describes how product categories work and some precautions you need to know when setting up categories.

Hierarchy of product categories   You can organize product categories in a hierarchy with different levels of categories. The number of product categories and levels you can create is only limited by system memory and disk space.

The following figure shows another example of a hierarchy and how it appears when you set up categories in the Inventory Management module.

```
┌─Computers
│   ┌── Complete System
│   └── Components
│           ┌── Audio Components
│           ├── Input Devices
│           ├── Misc Components
│           ├── Networking
│           └── Storage Devices
├─Other
├─Monitors
├─Peripherals
│   ┌── Accessories
│   └── Modems
└─Software
```
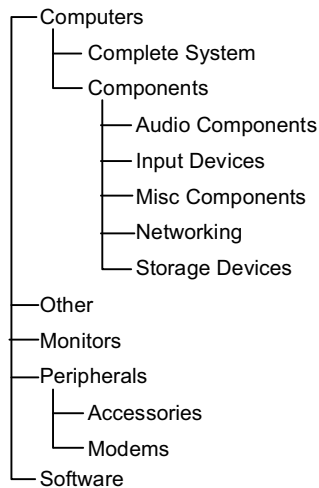
Assign items to a product group that does not have subgroups attached to it. In the example above, you can assign items to the Complete System and Audio Components group, but you cannot assign items to the Computers or Components groups.

You can assign an item to more than one product category.

Rules on product category names

Product category names have the following rules:

- They must be unique within a Sage ERP MAS 500 company. You can use the same name in another company, even if it is in the same database.

- You can use uppercase and lowercase characters and spaces.

- They must be a maximum of 20 characters; however, keep in mind that there is a limitation in the width of the catalog frame on the Web site. If you have a long product category name that is several levels down in the hierarchy of categories, the full name might not appear.

How product categories appear on the Web site

The product categories appear in the catalog frame of the order entry page. The Active Server Page for the catalog frame reads the category information from the database and automatically creates expanding and contracting headings when you have more than one level of categories.
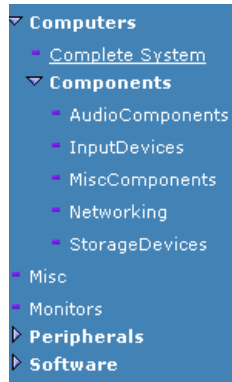
Clicking a heading expands a contracted listing and contracts an expanded listing.

Creating and Changing Product Categories

Procedure   Follow these steps to create product categories and change them as needed:

1   Select Inventory Management Maintenance menu > IM Setup > Set Up Product Categories. The following window appears:
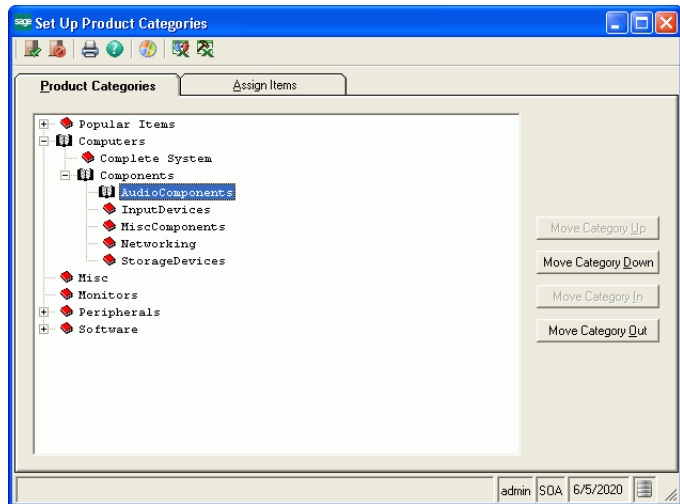
2 Depending on whether you want to put the product category at the top level or make it a subgroup of an existing product group, do one of the following:

Task	Procedure
To put the category at the top level of the hierarchy.	Right-click any empty space in the box.
To make a new subcategory of an existing product category.	Right-click the category where you want to put the new group.
	If the category already has items assigned to it, you need to move the items to another category before creating the subcategory. For instructions on assigning and removing items from product categories, see *Assigning Items to Product Categories* on page 101.

3 From the menu that appears, select New Category. A space appears in the box where you can type the name of the new category. Make sure it is a unique name.

4 You can change any of the categories. Select the category and do any one of the following:

Task	Procedure
Change the order that a category appears in its level of the hierarchy.	Click Move Category Up to move it up the list or Move Category Down to move it down.
Move a category up a level in the hierarchy.	Click Move Category Out.

Task	Procedure
Make an existing category a subcategory of another category.	Click Move Category Up or Move Category Down so the category is below the category where you want to assign it. Then, click Move Category In. It becomes a subcategory of the category above it.
Rename a category.	Right-click the category. From the menu that appears, select Rename Category. You can then type a new category name.

Tip: You can also right-click a category and select commands for moving it from the menu that appears.

5 To assign items to product categories now, skip to *Assigning Items to Product Categories* on page 101.

If you are finished, click Finish and Exit to accept the changes you made.

Deleting Product Categories

Procedure To delete a category, right-click it and, from the menu that appears, select Delete Category.

Precautions Note the following if you delete a category:

- You can only delete categories that do not have subcategories assigned to them. If you have to delete an entire category with subcategories, delete each of the subcategories first and then delete the main category.

- When you delete a category, you lose the assignments you made to items. The items must be assigned to other categories in order for them to appear on the Web site.

- The deletion takes effect after you click Finish and Exit. If you deleted a category by mistake, click Cancel and Exit. This also means that you will lose any other unsaved changes. After you click Finish and Exit, the change cannot be undone.

Assigning Items to Product Categories

Ways of assigning product categories

You can assign inventory and non-inventory items to product categories in either of the following ways in Inventory Management.

- To assign multiple items at one time, use the Set Up Product Categories window.

- To assign categories to an individual item, use the Maintain Items window.

You can put an item in more than one product category.

Assigning multiple items to product categories

To assign multiple items to product categories through the Set Up Product Categories window, follow these steps:

1   In Sage ERP MAS 500, select Inventory Management Maintenance menu > IM Setup > Set Up Product Categories.

2   Click the Assign Items tab as shown:
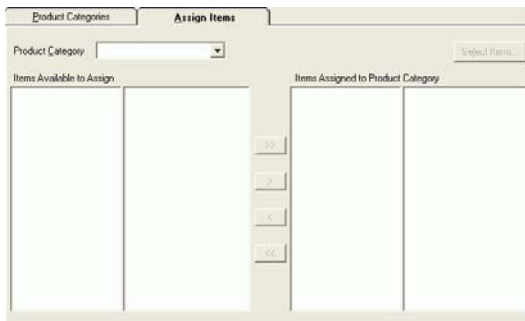
3 Select a product category to which you want to assign items. If there are items already assigned to that category, they appear under Items Assigned to Product Category on the right. The Select Items button becomes active.

Note: The Product Category field only lists categories to which items can be assigned. These categories do not have subcategories. For an explanation, see *Structure of Product Categories* on page 96.

4 Click Select Items. A search window appears as follows:
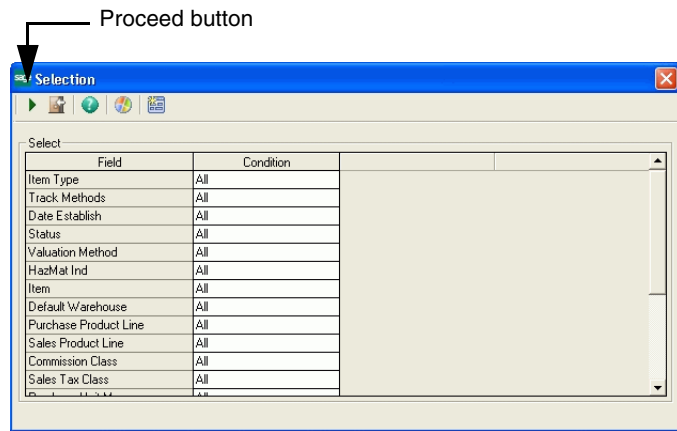
Proceed button

Select the search criteria you want and then click the Proceed button. The items that match the criteria appear under Items Available to Assign.

5 Do any of the following to assign or remove items to product categories:

Task	Procedure
To add individual items to the selected product category.	Select the items you want to assign under Items Available to Assign. To select more than one, hold down the CTRL key as you click each item. To select a range, click on the first item, press the SHIFT key, and then click on the last item. Click >. The selected items move to the Items Assigned to Product Category boxes.
To add all items to the selected product category.	Click >>. All of the items under Items Available to Assign move to Items Assigned to Product Category.
To remove individual items from the selected product category.	Select the items you want to assign under Assigned to Product Category. To select more than one, hold down the CTRL key as you click each item. To select a range, click on the first item, press the SHIFT key, and then click on the last item. Click <. The selected items move to Items Available to Assign.
To remove all items that were assigned to the selected product category.	Click <<. All of the items under Items Assigned to Product Category move to Items Available to Assign.

Tip: You can also drag and drop items from one box to another.

6 When you have finished making assignments for this product category, you can select another product category. You are prompted to save your changes.

Repeat steps 3 through 5 for each product category to which you want to assign items. You can place the same item in more than one product category.

7 Click Finish and Exit when you are done. This saves any unsaved changes.

Assign product categories to an individual item

You can use the Maintain Items in Inventory Management or Maintain Non-Inventory Items in Common Information to assign an individual item to a product category. You can use this procedure in the following situations:

- When you need to make other changes to an item.

- When you are creating a new item and want to assign it to a category.

- When you want to add images to the item as you assign it to a product category. For more information about adding images, see *Adding Images and Descriptions to an Item* on page 107.

The following procedure shows how to assign product categories.

1 Do either of the following in Sage ERP MAS 500:
   - ▶ For inventory items, select Inventory Management Maintenance menu > Maintain Items.

   - ▶ For non-inventory items, select Common Information Maintenance menu > Maintain Non-Inventory Items > Maintain Non-Inventory Items.

2 Open the item that you want to assign.

3 Click the Categories tab, which appears as shown:
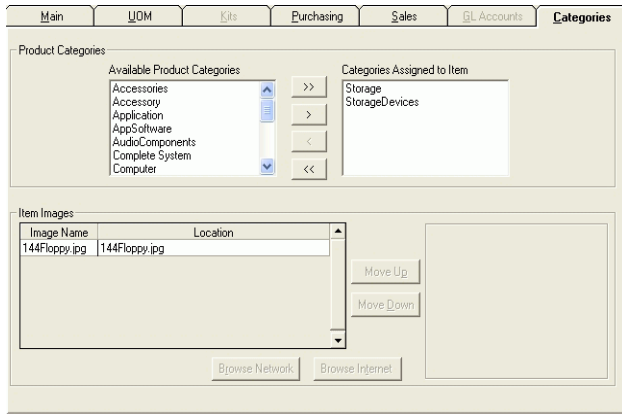
If the item has been assigned to product categories, they are listed in the Product Categories Assigned to Item box.

4 Assign or remove product categories as shown:

Task	Procedure
To assign individual product categories.	Select the items you want to assign under Available Product Categories. To select more than one, hold down the CTRL key as you click each item. To select a range, click on the first item, press the SHIFT key, and then click on the last item.
	Click >. The selected items move to the Categories Assigned to Item box.
To add the item to all product categories	Click >>. All of the items under Available Product Categories move to Categories Assigned to Item.

Task	Procedure
To remove individual items from the selected product category.	Select the items you want to assign under Categories Assigned to Item. To select more than one, hold down the CTRL key as you click each item. To select a range, click on the first item, press the SHIFT key, and then click on the last item. Click <. The selected items move to Available Product Categories.
To remove all items that were assigned to the selected product category.	Click <<. All of the items under Categories Assigned to Item move to Available Product Categories.

Tip: You can also drag and drop items from one box to another.

5 Click Save to accept the changes.

Adding Images and Descriptions to an Item

Overview

Description   eCustomer enables you to add images and a description of each item you sell through your Web site. You can use images saved to your server or upload images from the Internet or an intranet.

Requirements for Images

Supported formats   You can use any image format that is supported by Internet Explorer, including JPEG files and static, interlaced, and animated GIFs. Keep the following in mind:

- The image will appear in the Web site in a box of 140 x 140 pixels and be resized as needed to fit in the box. For best image quality, use an image that is 140 x 140 pixels so that it does not get distorted through resizing.

- Avoid using a high number of colors. If a user has set the display to a low number of colors (such as 256), a high-color image might not look right.

- Make sure you have legal rights to use the images on your site.

Where to Store Images

Introduction   With eCustomer, you can either upload images to your server or use them from the URL where you found them.

Location where images are stored

When you upload images, they are saved in the location you specify in the Inventory Images Share Name field in Set Up CI Options. (For more information, see *Setting Up the eCustomer Web Site* on page 90.) To maintain images through the shared folder, you need NetBIOS access to that folder.

Images and security

If you are using Secure Socket Layer (SSL) security, it is recommended that you upload images to your Web site. SSL generates a warning when a secured Web site makes reference to elements on non-secure Web sites. For more information, see *Secure Socket Layers (SSL)* on page 35.

Comparison of image locations

The following table lists the advantages and disadvantages of each option:

Option	Advantages	Disadvantages
Uploading to server	Images are always available; you do not need to worry about missing files.	You do not get updated images automatically. You need to upload new images when they change.
	You do not need to provide a long path for specifying the file location.	You need NetBIOS access to shared folder to maintain files.
	You can edit the file as needed.	

Option	Advantages	Disadvantages
Keeping them at their location	When images are updated at the other site, the updated images go on your site as well. Frees drive space on your server.	This makes you dependent on some other company's Web system. When the other company changes paths or filenames, you can lose the file, affecting the appearance of your Web site. You cannot edit the file. You need to provide a long path to the graphic. This is not recommended if your Web site uses SSL.

Adding Images and Descriptions

Procedure Use the Maintain Items task in Inventory Management to add images and descriptions. Follow these steps:

1 Do one of the following:

   ▶ For inventory items, select Inventory Management Maintenance menu > Maintain Items.

   ▶ For non-inventory items, select Common Information Maintenance menu > Maintain Non-Inventory Items > Maintain Non-Inventory Items.

2 Open the item to assign.

3 Make sure the name of the item clearly identifies it. The Web site uses the name in the header to label the product on the Web site.

4 In the Long Description field in the header of the Maintain Items window, type a description of the item that you want to have appear in the Web site. You can enter up to 255 characters.

5 Click the Categories tab. Add image files by doing any one of the following:

▶ If you know the name of the file, type it in the Location column. If the file is in a location other than the one specified in Set Up CI Options, include the whole path.

▶ To select a file from a local drive or a network drive to which your system is attached, click Browse Network. An Open window appears from which you can select the path and file.

▶ To select a file by specifying a URL, click Browse Internet. The following window appears:
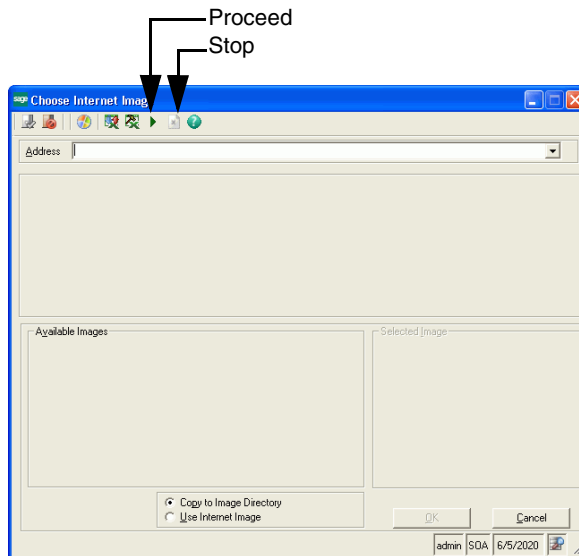
Type the address of the site in the Address field and press ENTER or click the Proceed button. The browser only connects to addresses through HTTP and HTTPS, not FILE and FTP.

The Web page appears in the middle of the window. You can click on the links in the window to go to other pages, but the browser does not support links that open in a separate browser window. As you navigate, the list of images changes to show the images on the page you are viewing.

A list of the GIF and JPG files in the site appears in the bottom left box. When you select an image, it appears in the box on the bottom right.
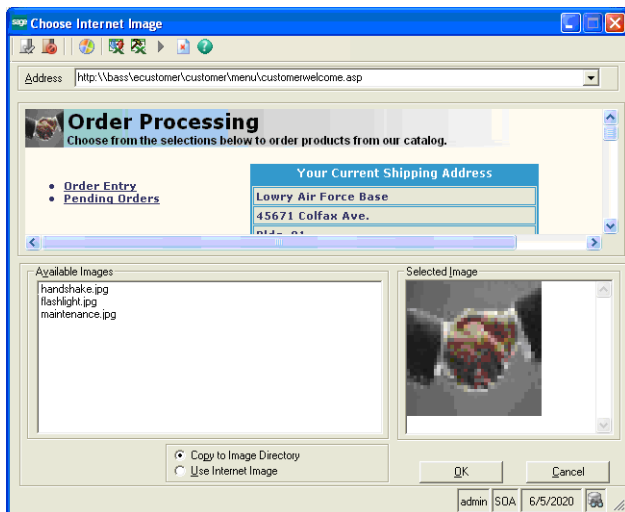
Select the image you want. Then, select whether you want to copy the image to your server or use Internet image (which means that it will be left at its current location). Click OK to add the image.

6   To continue to adding images, repeat step 5. If you are finished adding images, click Save.

Setting Up Customers

Overview

Introduction   In order for customers to use the Web site, they need to be granted access. In Sage ERP MAS 500, you set up one of the customer's buyers to be administrator. That person can then set up access for the other buyers for that customer.

This section explains how the eCustomer Web site uses customers, how to set them up in Sage ERP MAS 500, and how customers set up additional buyers from the Web site.

> **Note:** If the Sales Order and Inventory Management modules are not activated, you cannot use Sage ERP MAS 500 to set up customers. In this case, use eOrder or eSalesforce to launch eCustomer, and then set up customers in eCustomer's Buyer Maintenance page.

Explanation of "customer"   The term "customer" refers to the organization that uses your site, whether it is a purchasing department or an individual who buys products for a company. A customer can have more than one buyer. With eCustomer, each buyer can have an individual logon and password. Customers designate supervisors who review and approve orders generated by the buyers and administrators who set up and maintain other buyers for a customer.

Levels of Access Rights

Introduction   This section explains the different levels of access available to customers and other issues involved in setting up a customer on the site.

Basic access rights   Every buyer on the Web site has basic user access rights that enable them to place and process their own orders. You can assign additional access rights that enable users to perform additional tasks on the Web site.

Additional access rights   Each user can be granted additional levels of access.

Level	Description
Administrator	Can add new buyers for a customer through the Web site, set up transaction limits, and set access options for any user. You must have at least one administrator per customer.
Supervisor	Can process other buyers' shopping carts if the cart total is less than the supervisor's transaction limit.
Allow Inquiry	Can view account information and run inquiries.
Allow Maintenance	Can change customer address information, when this feature is available.

You can assign more than one of these additional levels to the same buyer. For example, a customer should have a main administrator who has all four of these additional access rights.

Administrators   Each customer needs to have at least one buyer to be designated as an administrator. Administrators can create, modify, and delete other buyers from the Web site.

A customer can have more than one administrator. After you have created the first administrator from Sage ERP MAS 500, that person can create other administrators.

A customer cannot create its first administrator from the Web site. Consider adding an e-mail link or a form to your Web site where customers can request to be added as an administrator to the Web site. The Web site cannot be modified so that the first administrator for a new customer can be added directly from the Web site.

Customers who do not have administrators cannot administer the buyers from the site, but you can administer all buyers from Sage ERP MAS 500, whether they were created from the Web site or in the CI module.

Transaction Limits

Introduction Each buyer can have a transaction limit, which is the maximum amount the buyer can purchase on a single order. Customers can set different transaction limits for each of their people who use the site. For example, they can put a $10,000 limit on buyers and a $25,000 limit on supervisors.

Unlimited transactions If you do not want to restrict the amount a buyer can enter for a single order, set the transaction limit to 0.

Limits on total orders There is no limit on the total of orders generated by a buyer, but the total of orders are subject to the customer's credit limit. If the customer is over the credit limit, the orders still go to Sage ERP MAS 500, but they are placed on hold until the customer pays down their account or their credit limit is increased.

For information about setting the credit limit, see *Activating Customers Created from the Web Site* on page 129.

Currency of the transaction limit	The currency of the transaction limit is determined by the home address of the transaction company selected in Sage ERP MAS 500. If the home address is in London, enter the transaction limit in British pounds. If you change the home address to Los Angeles, the transaction limit is interpreted as United States dollars, but the amount is not translated from pounds to dollars. The former £10,000 limit becomes $10,000. Therefore, remember to change the amount of customer transaction limits when you change the home address to another country.

Adding and Administering Buyers

Linking buyers to customers	All the buyers for a customer are linked to the customer record in Sage ERP MAS 500. Their information is retained in transaction records for audit trail purposes.
Where to create buyers	You can create any buyer for a customer through Sage ERP MAS 500. Typically, you just create the first administrator through Sage ERP MAS 500 so that customers can add, manage, or delete buyers themselves through the Web site. However, you can change or delete any buyers through the Sage ERP MAS 500, including those created from the Web site.
Setting up customers in Accounts Receivable	Before you add a buyer, you need to set up the customer information in Accounts Receivable and follow the requirements for logon names and passwords.

You need to set up the customer in Accounts Receivable as an Accounts Receivable customer. The customer needs to have at least one of the following:

- Ship-to address
- Contact
- Default warehouse |

For instructions on setting up customers, ship-to addresses, and contacts see the *Accounts Receivable* Help system. For information about setting up warehouses, see the *Inventory Management* Help system.

> **Important:** Customers will only be able to order inventory items that are in their assigned warehouse. For more information, see *Selecting Items to Sell* on page 95.

Logon name and password requirements

The logon name and password for each buyer needs to meet the following requirements:

- The logon name must be at least six characters long.

- The password must meet the following requirements:

  ▶ At least six characters long.

  ▶ Alphanumeric characters only.

  ▶ Different from the logon name.

- Passwords are always case-sensitive. Note the case you use for the password.

Adding Sage ERP MAS 500 users to eCustomer

There are two ways that Sage ERP MAS 500 users can gain access to the eCustomer Web site:

- If you are using eSalesforce, you can configure salespeople so that they can enter eCustomer through the eSalesforce Web site. For more information, see *Setting Up Salespeople* on page 124.

- To enable Sage ERP MAS 500 users to enter the eCustomer Web site directly, you need to set them up as external users. Logons for external users are separate from those for Sage ERP MAS 500. A user's logon name for eCustomer could be the same as that for Sage ERP MAS 500, but there is no connection between the two logons.

Adding buyers through Sage ERP MAS 500

Follow these steps to add buyers in Sage ERP MAS 500:

1   Select Common Information Maintenance menu > Maintain External User for Internet App. The following window appears:

2   Type the logon name to use.

Important: A dedicated user, ProcessWebSOUser, has been set up for adding sales orders to the application database. Do not delete this user. For more information, see *Requirement for ProcessWebSOUser* on page 183.

3   Select the customer, a customer contact (in the User Name field), and default ship-to address for this user. This information is defined through the Maintain Customer form in Accounts Receivable.

4   Type a transaction limit. For more information, see *Transaction Limits* on page 114.

5   To grant additional access rights, select the check box for each of the rights you want to add. For more information, see *Levels of Access Rights* on page 112.

6   Enter the password into both of the fields in the Password section.

7   Click Save. The user now has access to the Web site.

Changing User Information and Replacing Lost Passwords

Introduction   Use the Maintain External Users window to change the settings and passwords of any customers of the Web site, including buyers and administrators created through the Web site. You can change customer information, access rights, and passwords.

Procedure   Perform the following to change information and passwords.

1   Open the Maintain External Users window as shown in *Adding and Administering Buyers* on page 115.

2   Click the Search button to the right of the Login Name field. From the Search window that appears, select the user. The user's information appears in the Maintain External Users window.

3   Change the information as needed. If you are issuing a new password, type it in both the Enter Password and Repeat Password fields.

4   Click Save.

Deleting Administrators and Buyers

Introduction   Deleting administrators and buyers removes their access to the Web site.

Precautions   Be careful of the following:

- Do not delete all of the administrators. You need at least one administrator to enable customers to administer users themselves through the Web site.

- Do not delete an administrator or buyer if there is an order from that person in the queue, because this can cause errors. Wait until the order is cleared from the queue before deleting the administrator. For information about viewing orders in the queue, see *Processing Orders in Queues* on page 183.

Procedure To delete an administrator or buyer, perform the following:

1 Open the Maintain External Users window as shown in *Adding and Administering Buyers* on page 115.

2 Click the Search button to the right of the Login Name field. From the Search window that appears, select the user. The user's information appears in the Maintain External Users window.

3 Click Delete. The administrator is removed.

Adding and Administering Buyers Through the Web Site

Buyer Maintenance page After you have created an administrator for a customer, that person can then add, change, and delete buyers through the Buyer Maintenance page of the eCustomer Web site. Administrators can get instructions from the online help of the Web site.

The following figure shows the Buyer Maintenance screen as it appears when an administrator uses the Web site:

Changes buyers can make themselves

Buyers who are not administrators can use the Buyer Maintenance page to view and change their own information, including their password. Buyers who are not administrators cannot perform the following:

- Change their own access rights and transaction limit

- Add or delete buyers

When Changes Take Effect

Description

Changes in buyer information take effect the next time that the buyer logs into the Web site. If the buyer is logged in while the changes are made, the old settings apply until the buyer logs out. This is true whether the changes are made through the Web site or Sage ERP MAS 500.

Configuring the System for eSalesforce

6

This chapter shows how to set up options in Sage ERP MAS 500 to use eSalesforce. See the following sections for instructions on performing these tasks. For more information about individual windows, see the Help system.

In this chapter

Setting Up Credit Manager Messages

Overview

Introduction
When a salesperson completes a credit application through the eSalesforce Web site, it is sent to the credit manager. To enable this feature, you need to specify the credit manager's e-mail address in Set Up AR Options. You can also configure the system for additional e-mail communications between the credit manager and salespeople.

Setting up credit manager e-mail
Follow these steps:

1   Select Accounts Receivable Maintenance menu > AR Setup > Set Up AR Options. The following window appears:

2   Type the credit manager's complete e-mail address (name@company.com) in the E-Mail field. This enables the credit manager to receive credit applications that are sent from the eSalesforce site.

3 If you are using Microsoft Exchange and want to send e-mail messages from the credit manager to salespeople, type the credit manager's mailbox in the Mailbox field. This enables the credit manager to send documents through Microsoft Exchange.

4 Click the Finish and Exit button to save the change.

Setting Up Salespeople

Overview

Introduction

You need to set up your salespeople in Sage ERP MAS 500 to enable salespeople to log on to the eSalesforce Web site. Only salespeople whose logon information is entered in Accounts Receivable can log on to the eSalesforce Web site.

This section explains how to set up salesperson records in Accounts Receivable to use eSalesforce. For more information about setting up salespeople, see the Accounts Receivable Help system.

Setting Up Salespeople in Accounts Receivable

Introduction

This section shows you how to set up salespeople in Accounts Receivable to use eSalesforce. For information about setting up salespeople, see the Accounts Receivable Help system.

Prerequisites

Before setting up a salesperson for eSalesforce, set up a Sage ERP MAS 500 user logon. The user must be configured for Windows integrated logon. For more information, refer to the *Installation and System Configuration* guide.

Limitation in the number of salespeople

The number of salespeople you can create in Sage ERP MAS 500 is limited according to the terms of your license. It is the total number of named users for all companies. One named user can be set up for more than one company and take up one named license. The system displays a message when you approach the maximum number of salespeople. To add more salespersons, purchase additional licenses. For more information, refer to the *Installation and System Configuration* guide.

Procedure   Follow these steps:

1   Select Accounts Receivable Maintenance menu > Maintain Salespersons. The following window appears:

2   In the User ID field, type the salesperson's Sage ERP MAS 500 user ID. You can also click the Lookup button and select the salesperson from a list.

3   Complete any of the other fields as needed.

4   Click Save. The salesperson is added to Sage ERP MAS 500 and can have access to the eSalesforce Web site.

Changing salesperson records

If you change salesperson records, note the following effects on eSalesforce:

•   Only active salespeople have access to eSalesforce. When you set the status to Inactive or Deleted, the salesperson no longer has access to eSalesforce.

•   If the salesperson is a primary team member of a sales team, that person's status must be active. For information about sales teams, see the next section, *Setting Up Sales Teams*.

Setting Up Sales Teams

Introduction   You can organize salespeople into sales teams. Members of a sales team can be permitted to view and process orders by any other member. This feature enables a team to serve a large customer or for a team of salespeople to serve customers in a product line or geographical area.

Primary member   Each team can have a primary member, who is usually the team's manager or supervisor.

The primary member enables you to set up teams that match the department's management hierarchy. If the primary member has a sales manager, that manager can view and process orders for the primary member's team.

Setup procedure   To set up sales teams, perform the following in Accounts Receivable:

1   Select Accounts Receivable Maintenance menu > Maintain Sales Teams. The following window appears:
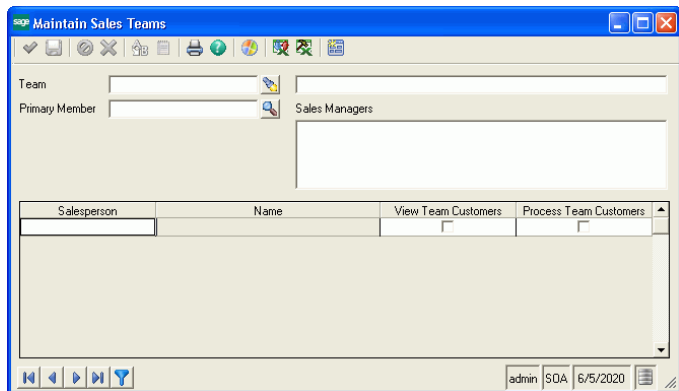
2   Type an identification code for the sales team in the Team field. Then, type a longer description in the field to the right of the Team field.

3   Select a primary team member. If the primary team member has a sales manager, that manager and the manager's manager, if any, appear in the Sales Manager field.

4   Add members to the team as follows:

   ▶   Type or select a salesperson to add to the team.

   ▶   Select whether the member can view and process customers for other team members. Put a check in a box to enable each option.

5   Click Save to accept all of the information you added to the sales team.

Viewing a list of sales teams

Run the Sales Team listing to view information about sales teams. You can generate the listing by doing either of the following:

•   Click the Print button in the Maintain Sales Teams window.

•   Select Accounts Receivable Reports menu > Other Lists > Sales Team List.

Changing and deleting sales teams

Use Maintain Sales Teams to change the membership of a sales teams or delete it.

Select a sales team from the Team field. You can add or remove members and save the changes. To delete a team, click the Delete button.

   Note: Deleting a sales team does not affect any transactional data.

Setting Up Customers

Overview

Ways to set up customers

With eSalesforce, you can create customers in the following ways:

- When you complete a credit application in the eSalesforce Web site, a customer record is created in Sage ERP MAS 500.

- Create a customer in Accounts Receivable Maintain Customers.

This section describes considerations for setting up customers in Accounts Receivable and how to activate customers created through the eSalesforce Web site. For more information, see the Accounts Receivable and eSalesforce Help system.

Creating Customers in Accounts Receivable

Differences from standard Accounts Receivable procedures

Create new customers in Accounts Receivable using the same procedure shown in the *Accounts Receivable* Help system, with the following exceptions:

- Provide a primary sales contact. Complete the Primary Contact section on the Main tab. Click Other Contacts to add additional contacts.

- On the Sales Order tab, select an option at the Closest Warehouse field. A warehouse is required in this field.

Activating Customers Created from the Web Site

Initial state of customers created from the Web site

When a salesperson generates a credit application from a potential customer, a customer record is created in Accounts Receivable with the following defaults:

- Credit limit: 0.00
- Use Credit Limit option: Selected
- Closest Warehouse: As configured in Set Up SO Options.

Approving customers

To enable a customer to place orders, perform the following:

- Type the approved credit limit, or select a customer class to use the defaults for that type of customer.
- On the Sales Order tab, change the warehouse at the Closest Warehouse field if you need to use a warehouse other than the default.

E-mail notification Of credit limit change

When the credit manager changes the credit limit or customer status, an e-mail is sent to each salesperson for each address associated with the customer, if the e-mail features are enabled.

To set up e-mail for use in Sage ERP MAS 500, see the Help system.

Changing eSalesforce Settings

Overview

Introduction   This section describes Web site settings that you can change and view for eSalesforce.

Viewing and Changing the Web Site

Introduction   Like eCustomer, eSalesforce has a Web Site Maintenance page that shows the Web site settings and enables you to select the processing company and put a message in the status bar. You must open and set this page to activate the eSalesforce site. Also use this page if there are problems with processing or to add a message to the status bar.

You can open the page either remotely from a browser or from the Web server.

Procedure   To use the Web Site Maintenance page, perform the following:

1   Do either of the following:

   ► To launch the page from the Web server: Select Windows Start menu > All Programs > Sage ERP MAS 500 > Internet Applications > eSalesforce > eSalesforce Site Maintenance.

   ► From Internet Explorer: Open the following Web page:

   http://*server/folder*/administration/sitemaint.asp

Where *server* is the Web server and *folder* is where the eSalesforce Web components are installed. For an explanation of how the address of the site is determined, see *Determining the URL* on page 38.

The following Web page appears.
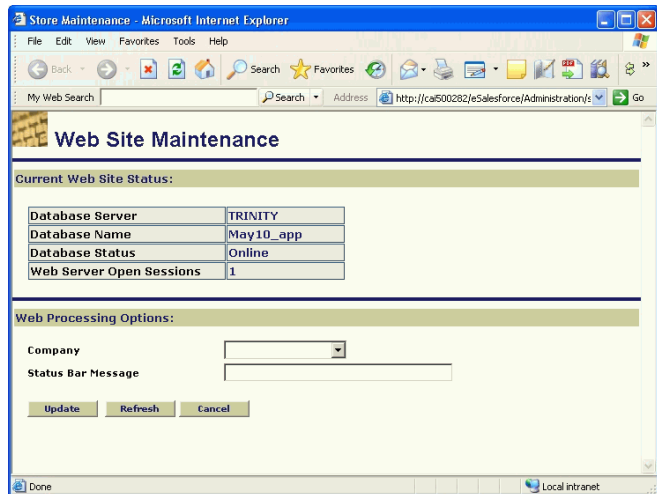
2 Select the company. The Web site supports only one company at a time.

3 In the Status Bar Message field, type a message of up to 128 characters. Because this message is not saved in the database, it should not be used for long-term messaging.

4 Click Update to make the change.

When changes take effect

If there are people using the Web site when you make changes, they will see and use the new settings as they refresh data in the browser and process information.

Chapter 6

Configuring Business Insights Dashboard

7

This chapter shows how to configure Business Insights Dashboard. See the following sections for instructions on performing these tasks. For more information about individual windows, see the Business Insights Dashboard Help system.

In this chapter

Configuring the Dashboard for Users

Introduction   Now that you have installed Business Insights Dashboard, use the instructions in this section to set up users, set up the Dashboard URL for users to access the Web site, set security for Web Parts, and update data.

Setting Up the Users

Setting Up Users   After installing Business Insights Dashboard, make sure the users running the Business Insights Dashboard Web site are set up in the Maintain Users task in Sage ERP MAS 500. For more information about setting up users in Sage ERP MAS 500, refer to your *Sage ERP MAS 500 Installation and System Configuration* guide.

The Business Insights Dashboard Forms Authenticated users (Dashboard users who are not Windows authenticated) must have passwords set up for their Sage ERP MAS 500 accounts.
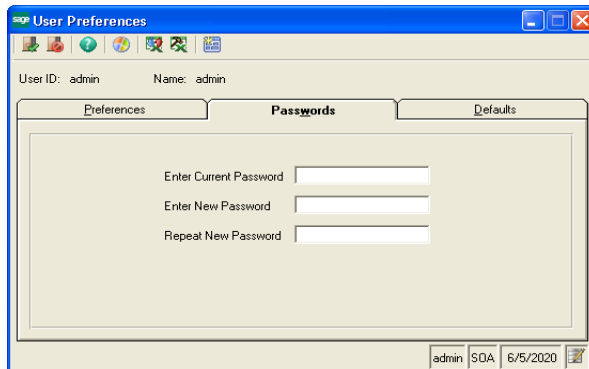
Users who are Windows authenticated into the Dashboard Web site must also be Sage ERP MAS 500 users. Use Maintain Users to add a user.
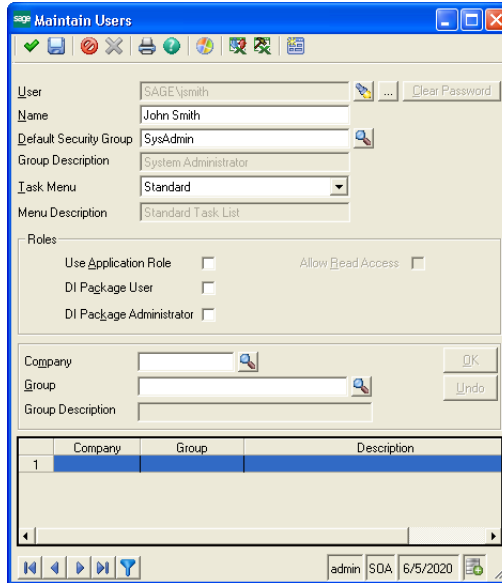

Updating Data

Updating data   The data that appears in the Business Insights Dashboard site is updated according to the schedule you set in Set Up CI Options. You can also generate manual updates. For more information, see *Setting Site Options in Sage ERP MAS 500* on page 78.

Setting security for Web parts

Use Maintain Security Groups (accessed from the System Manager module) to establish permissions for the Web Parts available in Business Insights Dashboard. For more information, refer to your *Sage ERP MAS 500 Installation and System Configuration* guide.
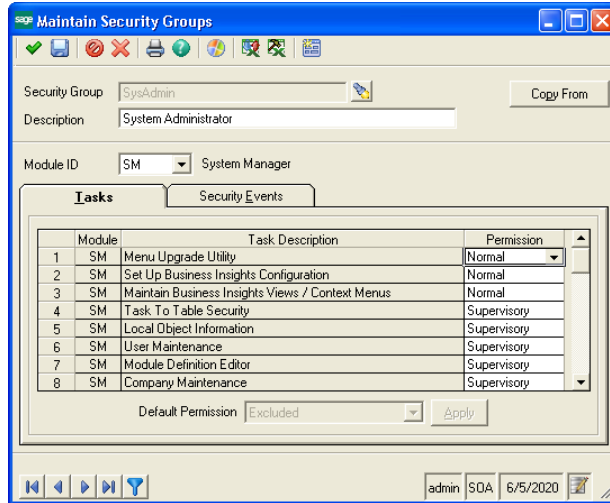
Setting Up Security for Dashboard Actions

In addition to the permissions for each Web part task, the Dashboard Enter Shared Scope and Dashboard Add Content tasks relate to the maintenance actions of the Dashboard pages.

Dashboard Add Content

A user with normal or supervisory permissions to Dashboard Add Content can add or delete content on the Dashboard page in Personal view.

A user who is also granted normal or supervisory permissions to Dashboard Enter Shared Scope can add or delete content from the Shared view on the Dashboard page.

Dashboard Enter Shared Scope

A user with normal or supervisory permissions can perform the following tasks in Dashboard Enter Shared Scope:

- View the Dashboard page in Shared view, which only shows the Web part content that is shared among all users.

  Note: Users given permission to Enter Shared Scope should also be given normal or supervisory permission to Dashboard Add Content for maintaining shared content.

- Create additional Dashboard pages, name them, and provide display names and descriptions.

- Change display name and description of the standard Dashboard page.

- Delete any additional Dashboard pages. The standard Dashboard page cannot be deleted.

Setting up the Dashboard

Introduction

After installing the Business Insights Dashboard as an IIS application on the same Web server as the other Internet applications, you can set a shortcut on the user's instance of Internet Explorer using the following convention:

\\servername\BusinessInsightsDashboard

You should also set the Business Insights Dashboard Web site as a trusted site in Internet Explorer.

Customizing Dashboard Web pages

You can customize the Business Insights Dashboard Web site with Microsoft Visual Studio 2010.

Configuring ASP.NET

Introduction   This section contains information about registering a different server or database to contain the ASP.NET tables, changing the property settings in ASP.NET without modifying the application code, and securing the Business Insights Dashboard connection.

ASP.NET Database Registration

Registering a different server or database

If you need to register a different server or database to contain the ASP.NET tables, perform the following tasks:

1   Run the aspnet_regsql.exe file located on your Web server at: drive:\\Windows\Microsoft.net\Framework\ VersionNumber

2   In SQL Management Studio, load and execute the ASPNET_REGMAS500.SQL script found on the Installation DVD for Internet Applications in the InternetApps\SupportFiles folder.

3   Reset IIS. You can restart the server or run the IISReset.exe command.

4   Verify the Web site has been started by launching the Internet Information Services (IIS) Manager from Administrative Tools. If the Web site has not been started, select the default Web site and click the Run button.

To enable Business Insights Dashboard to use the newly created ASP.NET database, change the ASP.NET LocalSqlServer connections string. For more information, see *Setting the Connection Strings* on page 141.

Configuring ASP.NET Settings

Configuration resources

The ASP.NET configuration settings allow you to change the properties of the ASP.NET application without modifying the application code. These settings are stored in a Web.Config file for the Business Insights Dashboard application. Revising any configuration settings updates this configuration file.

For more information about configuring ASP.NET, visit the following sites:

▶ For Internet Information Services (IIS) versions 5 and 6, go to:
http://msdn.microsoft.com/en-us/library/ ms186189(VS.80).aspx

▶ For Internet Information Services (IIS) version 7, go to:
http://msdn.microsoft.com/en-us/library/ ms178477.aspx
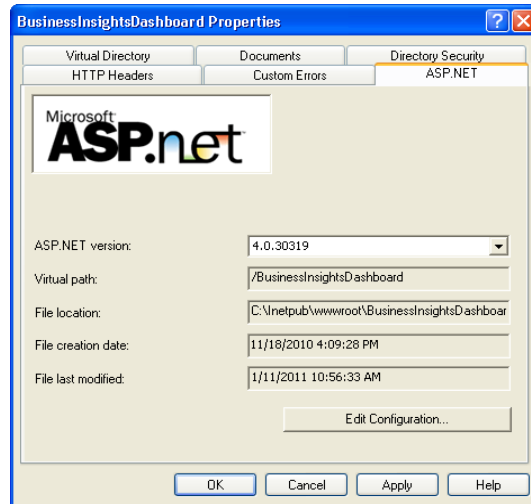
Configuration settings

This section describes the configuration settings that can be changed for your Business Insights Dashboard application.

Windows XP and Windows 2003 Server Procedure

Follow these steps to modify ASP.NET configuration settings in Windows XP and Windows 2003 Server:

1 Open the Internet Information Services (IIS) Manager program from the Administrative Tools folder.

2 Select the name of the installed Business Insights Dashboard, which resides under Web Sites\Default Web Sites.

3 From the menu, select Action, and then Properties.

4 Click the ASP.NET tab.

5 Click Edit Configurations.

**Windows Vista, Windows 2008 Server, and Windows 7 Procedure**

Follow these steps to modify ASP.NET configuration settings in Windows Vista, Windows 2008 Server, and Windows 7:

1 Open the Internet Information Services (IIS) Manager program from the Administrative Tools folder.

2 Select the name of the installed Business Insights Dashboard, which resides under Sites\Default Web Site.

3 On the Actions pane click Basic Settings. Ensure the Edit Application settings are as follows:
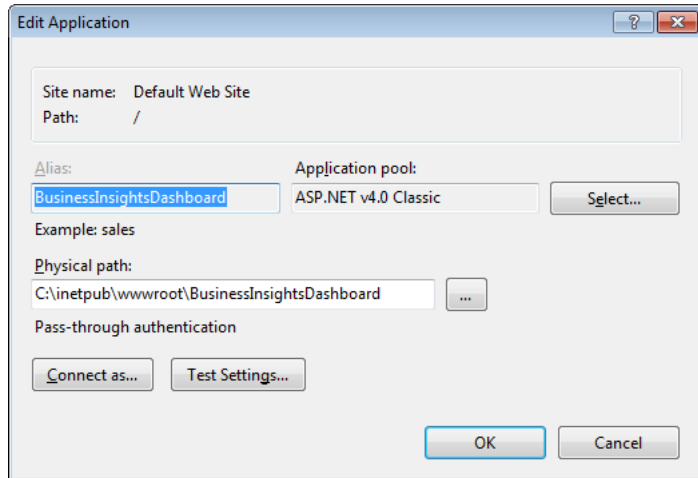
4 Double-click Authentication setting under BusinessInsightsDashboard and ensure Anonymous Authentication is enabled.

Setting the Connection Strings

Introduction
The following section contains information and procedures for setting and modifying LocalSqlServer and MAS500App connection strings.

Setting the LocalSqlServer connection string
Use the following procedures to set the LocalSqlServer connection string. LocalSqlServer is used by ASP.NET to connect to the data used by ASP.NET.

Windows XP and Windows 2003 Server Procedure
Follow these steps to set the LocalSqlServer connection string in Windows XP and Windows 2003 Server:

1 In the ASP.NET Configuration Settings window, click the General tab.

2 In the Connection string section, select the LocalSqlServer connection string.

3 Click Edit.

4 In the Edit/Add Connection String window, modify the connection string as needed.

Data Source: Name of the SQL Server
Initial Catalog: Name of the database in SQL Server
User ID: User ID used to log on to the server
Password: Password used to log on to the server

Note: Do not modify or remove Application Name.

5 Click OK.

Windows Vista, Windows 2008 Server, and Windows 7 Procedure

Follow these steps to set the LocalSqlServer connection string in Windows Vista, Windows 2008 Server, and Windows 7:

1 Double-click Connection Strings setting under BusinessInsightsDashboard to set up LocalSqlServer connection string.

2 In the Connection Strings section, select the LocalSqlServer connection string.

3 On the Actions pane click Edit.

4 In the Edit Connection String window, modify the connection string as needed.

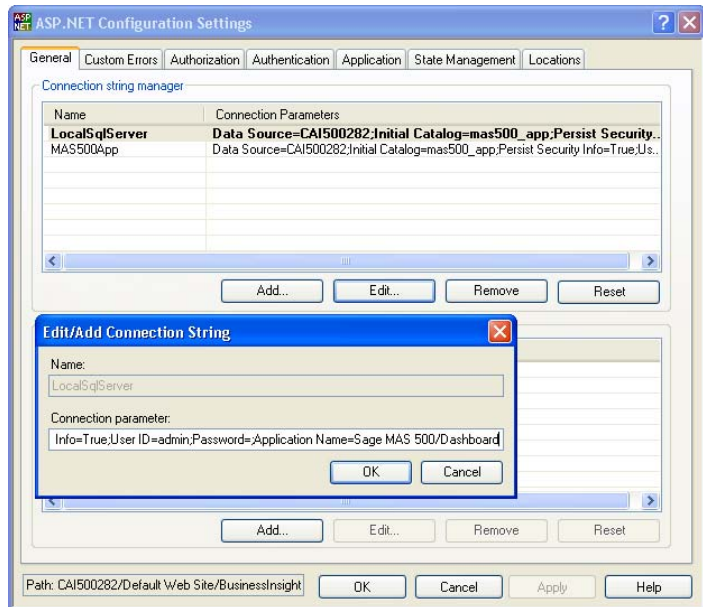Data Source: Name of the SQL Server

Initial Catalog: Name of the database in SQL Server

User ID: User ID used to log on to the server

Password: Password used to log on to the server

Note: Do not modify or remove Application Name.

5 Click OK.

Modifying the MAS500App connection string   Use the following procedures to modify the MAS500App connection string. MAS500App is used to access Sage ERP MAS 500 data.

Windows XP and Windows 2003 Server Procedure

Follow these steps to modify the MAS500App connection string in Windows XP and Windows 2003 Server:

1 In the ASP.NET Configuration Settings window, click the General tab.

2 In the Connection string section, select the MAS500App connection string.

3 Click Edit.

4 In the Edit/Add Connection String window, modify the connection string as needed.
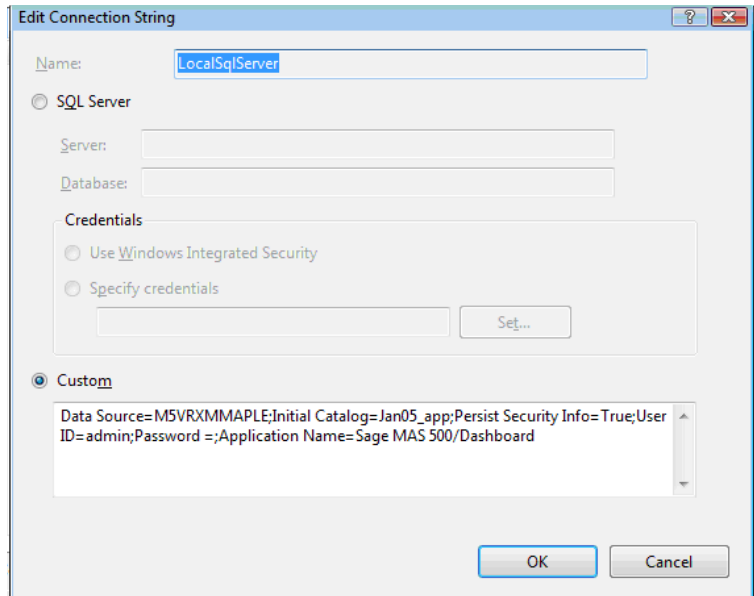
Data Source: Name of the SQL Server

Initial Catalog: Name of the database in SQL Server

User ID: User ID used to log on to the server

Password: Password used to log on to the server

Note: Do not modify or remove the Application Name and Persist Security Info entries.

5 Click OK and close the ASP.NET Configuration Settings window.

6 On the Properties window, click OK.

7 Close IIS.

Windows Vista, Windows 2008 Server, and Windows 7 Procedure

Follow these steps to modify the MAS500App connection string in Windows Vista, Windows 2008 Server, and Windows 7:

1 Double-click Connection Strings setting under BusinessInsightsDashboard to set up MAS500App connection string.

2 In the Connection Strings section, select the MAS500App connection string.

3 On the Actions pane click Edit.

4 In the Edit Connection String window, modify the connection string as needed.

Data Source: Name of the SQL Server
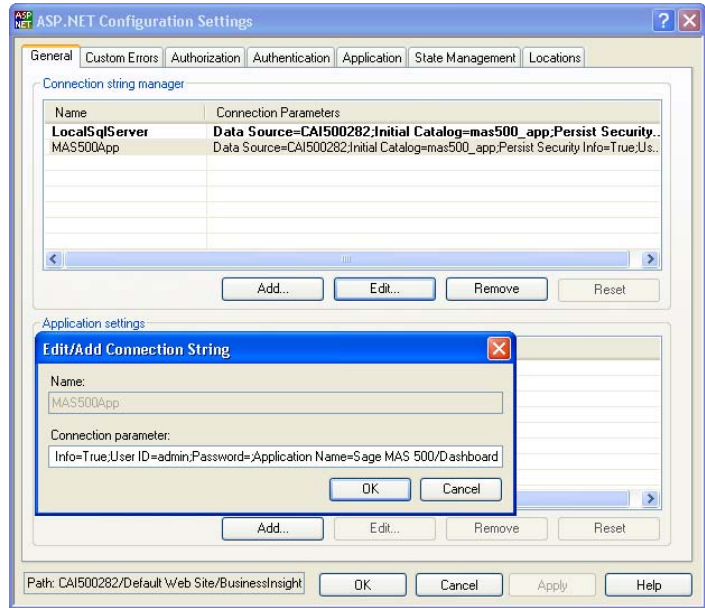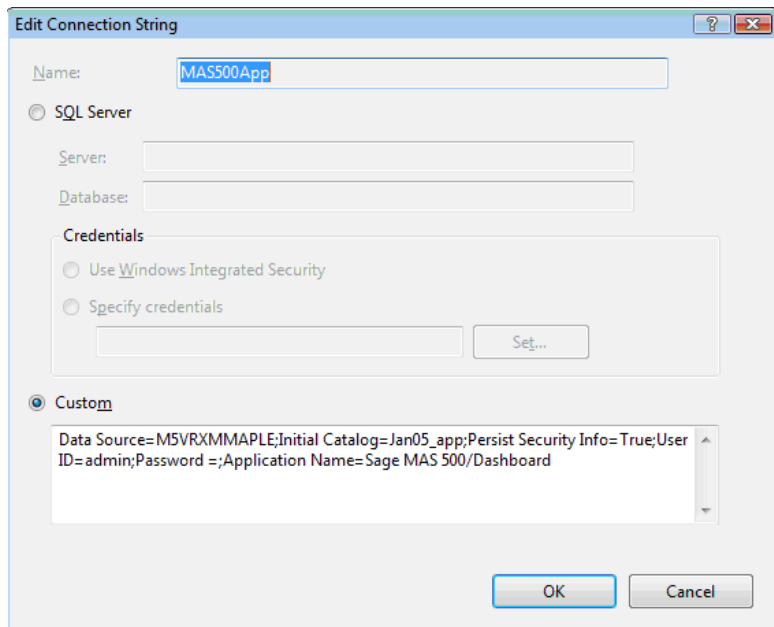
Initial Catalog: Name of the database in SQL Server

User ID: User ID used to log on to the server

Password: Password used to log on to the server

Note: Do not modify or remove Application Name.

5 Click OK.

Securing the Business Insights Dashboard Connection

Security measures   Business Insights Dashboard stores two connections to the database in the web.config file. One connection, LocalSqlServer, is used by ASP.NET to connect to the data used by ASP.NET. The other connection, MAS500App, is used to access Sage ERP MAS 500 data. Typically, these connections are created using a SQL Server user ID and are stored in the web.config file. This is usually sufficient because the web.config file is protected by Internet Information Services (IIS) Manager by not allowing the file to be transferred to a client. There also is protection from access outside of IIS using normal NTFS protection.

Additional steps can be taken to further increase the security of these connection strings, such as encrypting the connection strings in the web.config file, implementing a trusted subsystem configuration, and impersonating the application level. The following section describes these methods.

Encrypting the connection string   Encrypting the connection string is not difficult to do and will protect the connection string information from being accessed in case the web.config file is compromised.

> **Note:** The steps in the following procedure can be implemented independently.

To encrypt the connection string:

1   From the machine that is running the Web server, run the following command line utility:

aspnet_regiis -pe "connectionStrings" -app "/BusinessInsightsPortal" -prov "DataProtectionConfigurationProvider"

> ▶ aspnet_regiis is located in the %systemroot%/ Microsoft.Net/Framework/<version> folder where %systemroot% is typically C:\Windows and <version> is the version of the .NET framework in use.

> ▶ /BusinessInisghtsDashboard is the name of the web application.

> ▶ DataProtectionConfigurationProvider is implemented in .NET Framework 4.0 and provides the encryption facilities.

The .NET Framework 4.0 Software Developer's Kit (SDK) provides two different Protected Configuration providers, which you use with the aspnet_regiis.exe tool:

> ▶ RSAProtectedConfigurationProvider. This is the default provider and uses the RSA public key encryption to encrypt and decrypt data. Use this provider to encrypt configuration files for use on multiple Windows Servers in a Web farm.

> ▶ DPAPIProtectedConfigurationProvider. This provider uses the Windows Data Protection API (DPAPI) to encrypt and decrypt data. Use this provider to encrypt configuration files for use on a single Windows Server.

Implementing a trusted subsystem

In the trusted subsystem model, the database server trusts the Web application identity and allows the Web application to make calls on behalf of the original caller.

Procedure

To implement a trusted subsystem:

1 Modify the MAS500App Connection String to use integrated security as follows:

Data Source=YourSQLServerMachine;Initial Catalog=mas500_app;Integrated Security=True

Where YourSQLServerMachine is the name of the SQL Server, and mas500_app is the name of the MAS500 database.

2 Grant access to the SQL Server for the identity of the ASP.NET application. Typically this is <machinename>/ASPNET. You can determine the correct user ID using Task Manager and looking at the User Name for the aspnet_wp object.

Allowing the <machinename>/ASPNET user access to your SQL Server can pose a potential risk because anyone using ASP.NET on the Web server will have access to the SQL Server. The potential of risk can be reduced by also impersonating the application level.

Impersonating application levels

A good practice for building a trusted subsystem is to also use the application impersonation method. After implementing a trusted subsystem, isolate the access to the database for the Business Insights Dashboard application. This allows the Business Insights Dashboard application to have its own identity, separate from the identity used by other ASP.NET applications. This allows you to grant database access tailored to the needs of the Business Insights Dashboard application.

To implement application impersonation, set the impersonation identity for the Business Insights Dashboard application by accessing the IIS properties for the Business Insights Dashboard application and updating the ASP.NET configuration to set the local impersonation setting as shown in the following window.
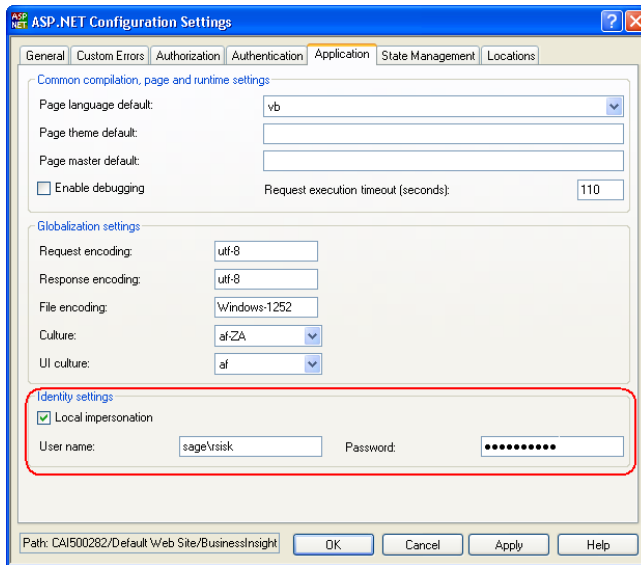
For more information, refer to the following article on the Microsoft Web site:

http://msdn2.microsoft.com/en-us/library/ms998292.aspx

Protecting the LocalSqlServer connection string

In Business Insights Dashboard, AppRole functionality is not supported for the LocalSqlServer connection string. The best approach for securing this connection string is to limit the access to only the database objects accessed using this connection. Use the following procedure to secure this connection string.

Procedure

To secure the LocalSqlServer connection string:

1 Create a database role (DBRole) that has access to objects that start with aspnet.

2 Select a Windows Authenticated user ID that is a Sage ERP MAS 500 user, has the MAS500 AppRole option selected, and is a member of the database role created in step 1.

3 Modify the LocalSqlServer and MAS500App connection strings to use Integrated Security.

4 Modify the Dashboard application to impersonate the user selected in step 2.

5 Encrypt the web.config file.

Encrypting and decrypting connection strings

You can encrypt and decrypt sections in the web.config file using the aspnet_regiis.exe command-line tool, which can be found in the %WINDOWSDIR%\Microsoft.Net\Framework\version folder, normally located at:

C:\Windows\Microsoft.Net\Framework\v4.0.30319.

Encryption:

aspnet_regiis.exe -pef "connectionStrings" "C:\Inetpub\wwwroot\BusinessInsightsDashboard" -prov "DataProtectionConfigurationProvider"

-- or -

aspnet_regiis.exe -pe "connectionStrings" -app "/BusinessInsightsDashboard" -prov "DataProtectionConfigurationProvider"

Decryption:

aspnet_regiis.exe -pdf "connectionStrings" "C:\Inetpub\wwwroot\ BusinessInsightsDashboard"

-- or -

aspnet_regiis.exe -pd "connectionStrings" -app "/BusinessInsightsDashboard"

Note: You may need to replace BusinessInsightsDashboard with the name given the site at time of install.

Encrypting still allows you to use the ASP.NET configuration to maintain the connection strings through the ASP.NET configuration.

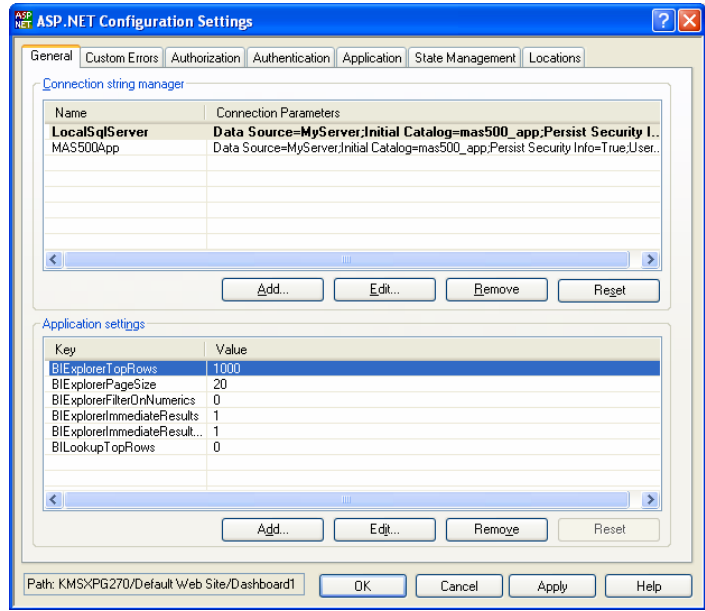# Handling Large Sets of Data

Overview   To handle performance issues with large sets of data, Business Insights Explorer data within the Business Insights Dashboard uses the Top feature of SQL Server to limit the amount of data delivered back to the server and client. This value is stored as an application setting and can be modified at the installed site. The following steps describe how to modify this value.

Windows XP and Windows 2003 Server Procedure

Follow these steps to modify the Top value in Windows XP and Windows 2003 Server:

1 In the ASP.Net Configuration Settings window, click the General tab.

2 Select BIExplorerTopRows from the Application settings section.

3 Click Edit.

4 Type the integer value, and then click OK.

5 In the ASP.NET Configurations Settings window, click OK.

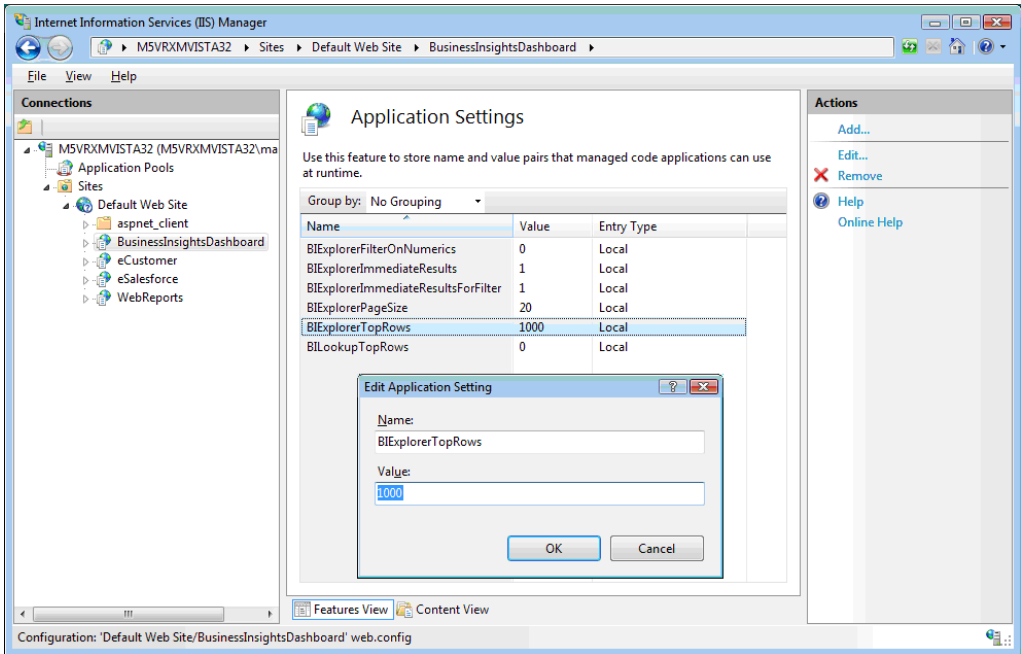**6** In the Properties window, click OK.

7 Close IIS.

You can also handle large sets of data for the selection filter in the Lookup window. The default is 0 to return all the rows, but can be modified by selecting BILookupTopRows from the Application settings section.

Windows Vista, Windows 2008 Server, and Windows 7 Procedure

Follow these steps to modify the Top value in Windows Vista, Windows 2008 Server, and Windows 7:

1 Double-click Application Settings under BusinessInsightsDashboard to maintain the Top value.

2 In the Application Settings section, select BIExplorerTopRows.

3 Click Edit.

4 Type the integer value, and then click OK.

5 Close IIS.

You can also handle large sets of data for the selection filter in the Lookup window. The default is 0 to return all rows, but it can be modified by selecting BILookupTopRows from the Application Settings section.

Displaying a Specific Number of Rows

Overview

Business Insights Explorer within Business Insights Dashboard uses a paging model to display only a specified number of rows to the user. The default size is 20 but can be modified at the installed site. The following procedure describes how to modify this value.

Windows XP and Windows 2003 Server Procedure

Follow these steps to modify the number of rows to display in Windows XP and Windows 2003 Server:

1 In the ASP.NET Configuration Settings window, click the General tab.
2 Select BIExplorerPageSize from the Application settings section.
3 Click Edit.
4 Type the integer value, and then click OK.
5 In the ASP.NET Configurations Settings window, click OK.
6 In the Properties window, click OK.

7 Close IIS.
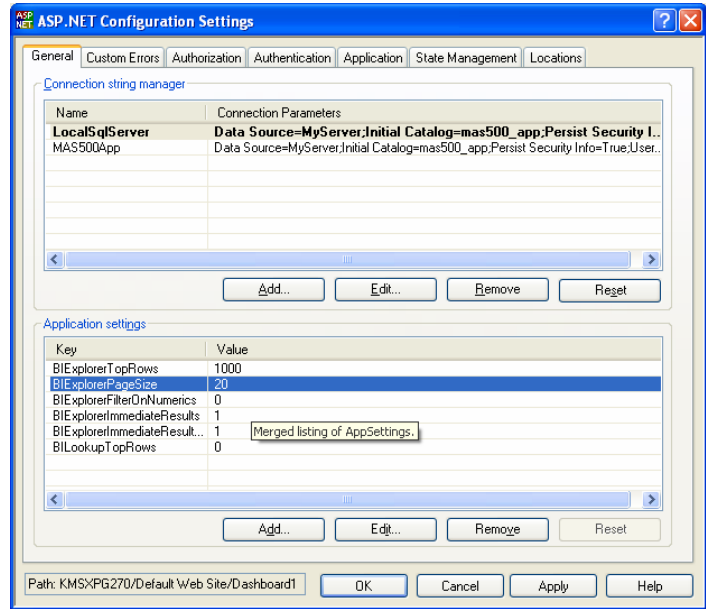
Windows Vista, Windows 2008 Server and Windows 7 Procedure

Follow these steps to modify the number of rows to display in Windows Vista, Windows 2008 Server and Windows 7:

1 Double-click Application Settings under BusinessInsightsDashboard to maintain the Top value.

2 In the Application Settings section, select BIExplorerPageSize.

3 Click Edit.

4 Type the integer value, and then click OK.

5   Close IIS.
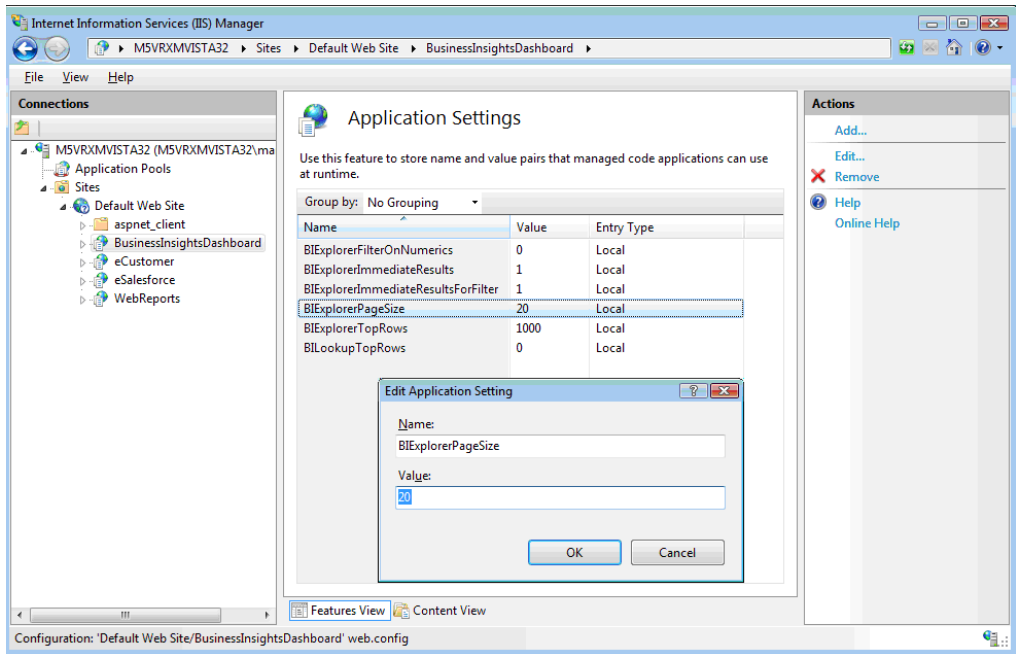
Modifying the Filter On Numerics Setting

Overview   The Filter on Numerics setting is used to enable or disable filtering on numeric data. The version of the Infragistics control used by the Business Insights Dashboard has problems with numerics formatted with a group separator or percent symbol. Performing the following procedure provides a way to allow filtering on numeric values; however, doing so does not allow group separators.

> **Note:** Percentage columns do not allow filtering.

Windows XP and Windows 2003 Server Procedure

Follow these steps to modify the Filter on Numerics setting in Windows XP and Windows 2003 Server:

1   In the ASP.NET Configuration Settings window, click the General tab.

2   Select BIExplorerFilterOnNumerics in the Application settings section.

3   Click Edit.

4   Type the bit integer (0, 1) value, and then click OK.

    Note: Percentage columns do not allow filtering.

5   In the ASP.NET Configurations Settings window, click OK.

6   In the Properties window, click OK.

7   Close IIS.
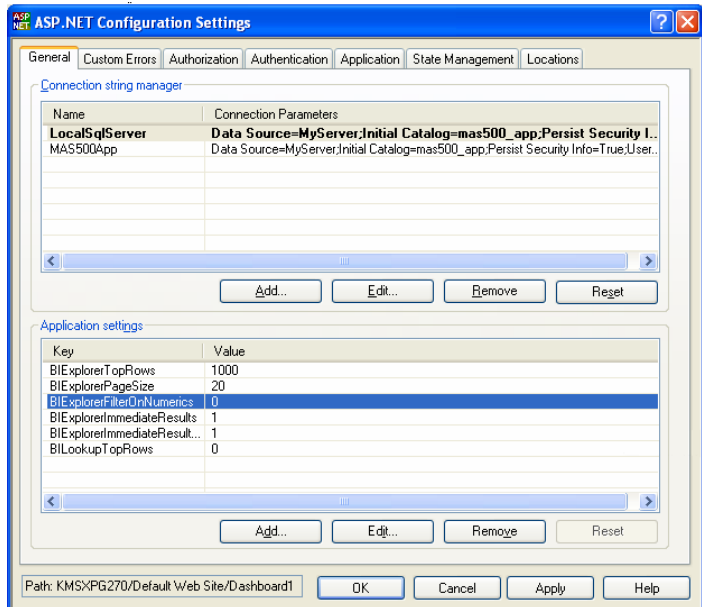
Windows Vista, Windows 2008 Server, and Windows 7 Procedure

Follow these steps to modify the Filter on Numerics setting in Windows Vista, Windows 2008 Server, and Windows 7:

1   To maintain the Top value, double click Application Settings under BusinessInsightsDashboard.

2   In the Application Settings section, select BIExplorerFilterOnNumerics.

3   Click Edit.

4   Type the bit integer (0, 1) value, and then click OK.

    Note: Percentage columns do not allow filtering.

5   Close IIS.
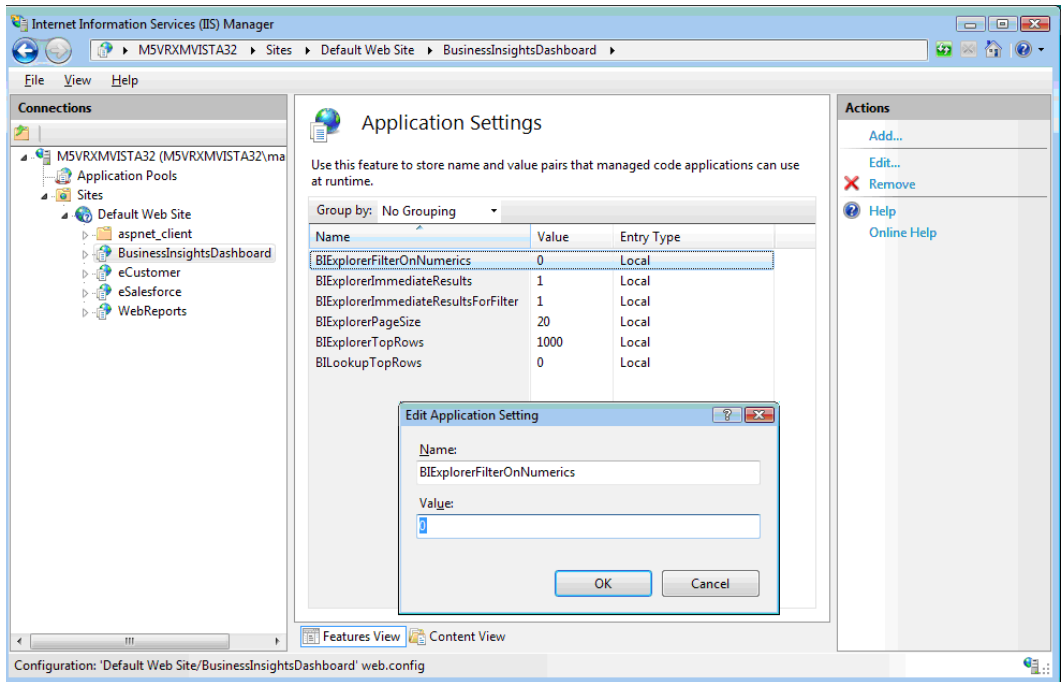
Modifying the Immediate Results Setting for Explorer

Overview   The Immediate Results setting is used to enable or disable the ability to view Explorer results immediately when selecting the Explorer task. A Web site can disable immediate results when there is the possibility of large data sets being returned, or to allow being able to enter a filter condition to limit the results instead of viewing the larger set of data first. The Sage ERP MAS 500 client default setting for immediate results is enabled as is the Business Insights Explorer Immediate Results setting. You can disable the immediate results for the client as a setting per Explorer task. The Business Insights Dashboard observes this setting when it is disabled.

> **Note:** To view immediate results, both client and Dashboard setting must be enabled.

Windows XP and Windows 2003 Server Procedure   Follow these steps to modify the Immediate Results setting in Windows XP and Windows 2003 Server:

1   In the ASP.Net Configuration Settings window, click the General tab.

2   Select BIExplorerImmediateResults from the Application settings section.

3   Click Edit.

4   Type the bit integer (0, 1) value, and then click OK.

5   In the ASP.NET Configurations Settings window, click OK.

6   In the Properties window, click OK.

7 Close IIS.
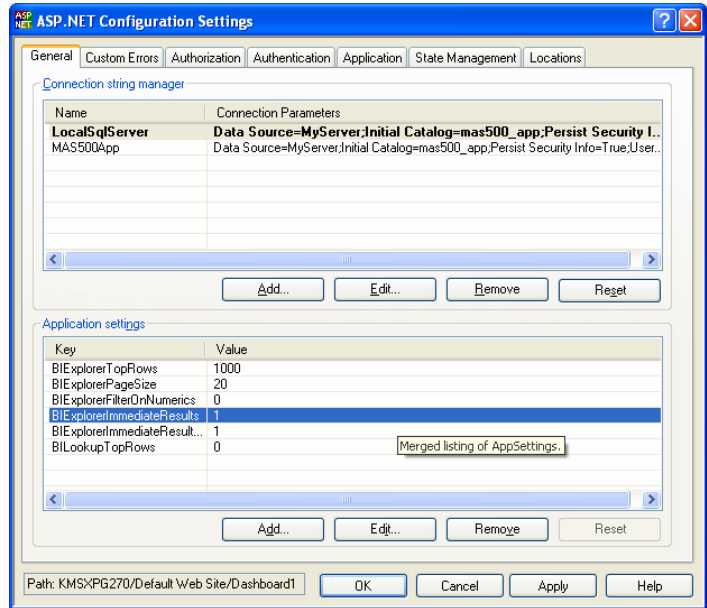
Windows Vista, Windows 2008 Server, and Windows 7 Procedure
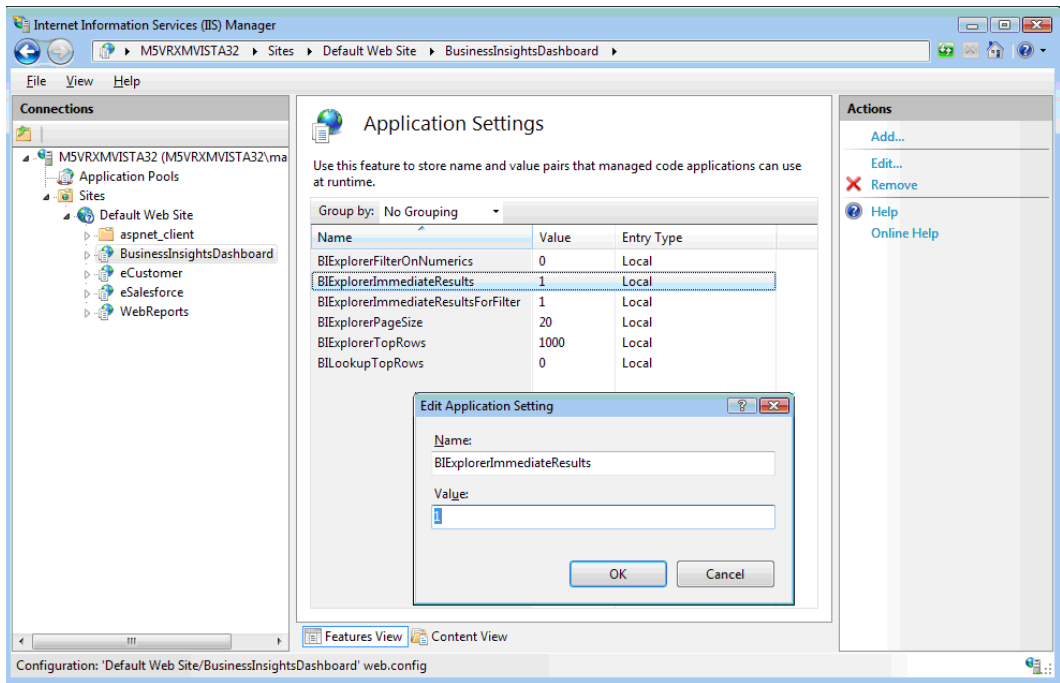
Follow these steps to modify the Immediate Results setting in Windows Vista, Windows 2008 Server, and Windows 7:

1 To maintain the Top value, double click Application Settings under BusinessInsightsDashboard.

2 In the Application Settings section, select BIExplorerImmediateResults.

3 Click Edit.

4 Type the bit integer (0, 1) value, and then click OK.

5 Close IIS.

Modifying the Immediate Results for Filter Setting

Overview   The Immediate Results for Filter setting is used to determine if the data is loaded when a filter is applied for the Explorer view. When a filter exists and the value for this setting is 1, this setting will display the data for the filtered view. Setting this value to 0 is designed to force the user to select the Refresh button to view the results. This setting is ignored when Drill Into is performed to another data view. The Business Insights Dashboard observes this setting when it is disabled.

> **Note:** To view immediate results, both client and Dashboard setting must be enabled.

Windows XP and Windows 2003 Server Procedure

Follow these steps to modify the Immediate Results for Filter setting in Windows XP and Windows 2003 Server:

1   In the ASP.Net Configuration Settings window, click the General tab.

2   Select BIExplorerImmediateResultsForFilter from the Application settings section.

3   Click Edit.

4   Type the bit integer (0, 1) value, and then click OK.

5   In the ASP.NET Configurations Settings window, click OK.

6   In the Properties window, click OK.

7   Close IIS.
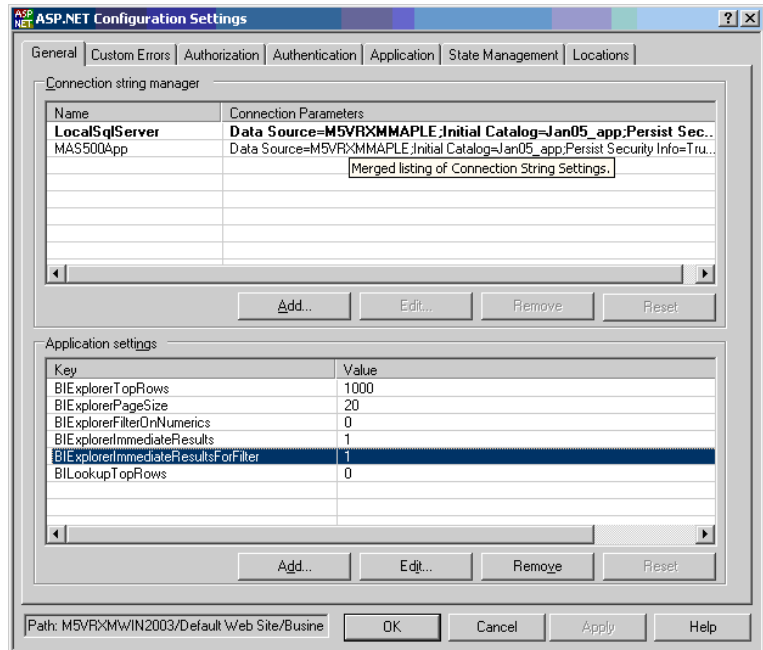
Windows Vista,
Windows 2008
Server, and
Windows 7
Procedure

Follow these steps to modify the Immediate Results for Filter setting in Windows Vista, Windows 2008, and Windows 7:

1   Double click Application Settings under BusinessInsightsDashboard to maintain the Top value.

2   In the Application Settings section, select BIExplorerImmediateResultsForFilter.

3   Click Edit.

4   Type the bit integer (0, 1) value, and then click OK.

5   Close IIS.
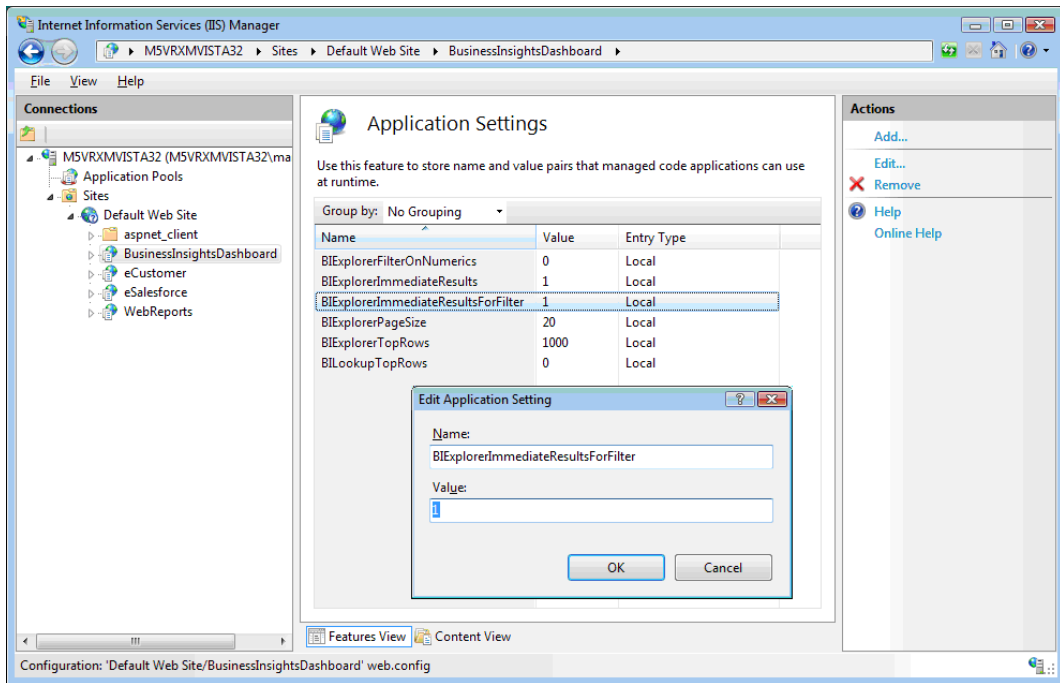
Enabling or Disabling Custom Errors

Overview   The capability to implement custom errors is enabled to provide messages within Business Insights Dashboard. If the custom error messages do not provide enough detail, you can disable custom messaging, which allows you to provide more detailed descriptions to problems.

Custom error setting for IIS 5 and 6   To modify the custom error mode setting for Internet Information Services (IIS) versions 5 and 6

1   In the ASP.NET Configuration Settings window, click the Customer Errors tab.

2   At the Custom error mode field, select the custom error mode to use. The following mode options are available:

▶   On: Custom errors are displayed for local and remote clients.

▶   Off: Detailed custom errors are displayed for local and remote clients.

▶   Remote Only: Custom errors are displayed for remote clients and detail errors are displayed for local clients. This option is the installation default option.

3 In the ASP.NET Configurations Settings window, click OK.
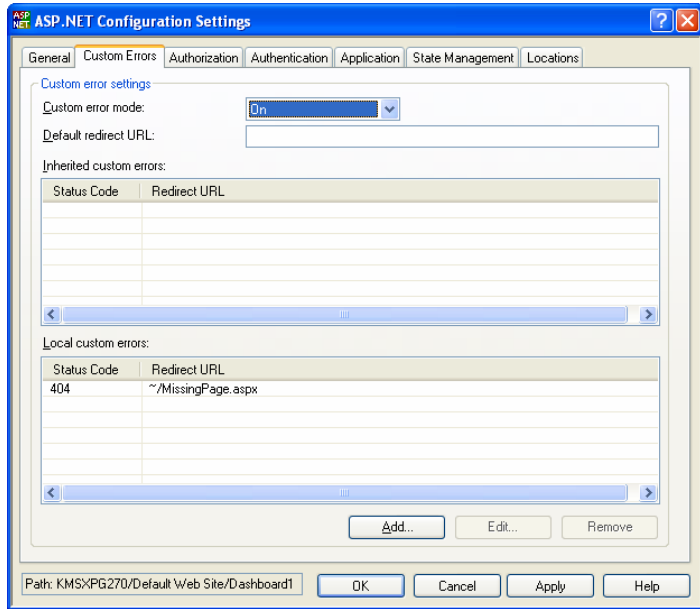
4 In the Properties window, click OK.

5 Close IIS.

Custom error setting for IIS 7

To modify the custom error mode setting for Internet Information Services (IIS) version 7

1 Locate the installation folder for the Business Insights Dashboard. Unless a virtual folder is used for this application, the folder is under the IIS Server hard drive as shown in the following example:

C:\Inetpub\wwwroot\BusinessInsightsDashboard

2 Open the web.config file in Notepad.

3 Locate the customErrors mode section in the web.config file as follows:

<customErrors mode="RemoteOnly">

4   Enter the custom error mode. The following options are
    available:

    ▶   On: Custom errors are displayed for local and
        remote clients.

    ▶   Off: Detailed custom errors are displayed for local
        and remote clients.

    ▶   RemoteOnly: Custom errors are displayed for
        remote clients and detail errors are displayed for
        local clients. This option is the installation default
        option.

5   Save the web.config file.

Modifying the Maximum Request Length Exceeded

Overview   An error may occur if the value for the MaxRequestLength is
not large enough to allow for data to be posted back to the
server. When custom errors are disabled, this error is
identified by a "Maximum request length exceeded." error
message.

Procedure   To resolve this problem, use the following method. The
web.config file for Business Insights Dashboard requires
modification.

1   Locate the installation folder for the Business Insights
    Dashboard. Unless a virtual folder is used for this
    application, the folder is under the IIS Server hard drive
    as shown in the following example:

    C:\Inetpub\wwwroot\BusinessInsightsDashboard

2   Make a backup copy of the web.config file.

3   Open the web.config file in Notepad.

4   Locate the httpRuntime markup in the web.config file
    as follows:

    <httpRuntime   maxRequestLength="12288" />

5   Adjust the value by some increment (for example, by 1024).

6   Save the web.config file.

7   You may need to continue to adjust this value until the problem is resolved.

Note: When changing the maxRequestLength property, be aware of the setting provided for the executionTimeout property. This property sets the time (in seconds) for a request to attempt to execute to the server before ASP.NET shuts down the request (whether or not it is finished). You receive a timeout error notification in the browser if the time limit is exceeded. If you are going to permit larger requests, remember that they take longer to execute than smaller ones. If you increase the size of the maxRequestLength property, you should examine whether to increase the executionTimeout property as well.

For more information, refer to the following article on the Microsoft Web site:

http://support.microsoft.com/default.aspx?scid=kb;EN-US;295626

Troubleshooting Business Insights Dashboard

For more information about troubleshooting Business Insights Dashboard issues, see *Troubleshooting Business Insights Dashboard* on page 197.
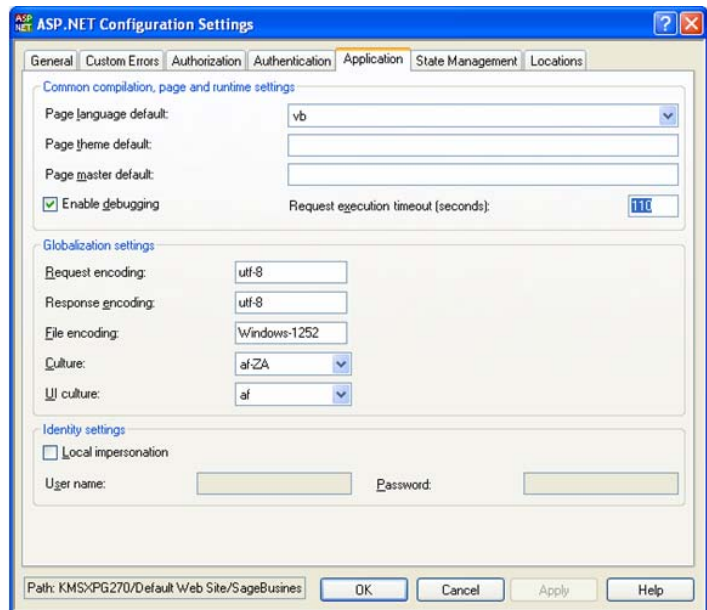
Modifying the Execution Timeout Value

Overview

Execution timeout indicates that maximum number of seconds that a request is allowed to execute before being automatically shut down by ASP.NET.

Windows XP and Windows 2003 Server Procedure

Follow these steps to modify the execution timeout value in Windows XP and Windows 2003 Server:

1   Launch Internet Information Services (IIS) Manager from the Administrative Tools folder.

2   Select the name of the installed Business Insights Portal, which resides under Web Sites\Default Web Sites.

3   Select Action menu > Properties.

4   Click the ASP.NET tab.

5   Click Edit Configurations.

6   Click the Application tab.

7   Enter the numbers in seconds for the Request execution timeout entry.

8 In the ASP.NET Configurations Settings window, click OK.

9 In the Properties window, click OK.

10 Close IIS.

Windows Vista, Windows 2008 Server, and Windows 7 Procedure

Follow these steps to modify the execution timeout value in Windows Vista, Windows 2008 Server, and Windows 7:

1 Open the Internet Information Services (IIS) Manager program from the Administrative Tools folder.

2 Select the name of the installed Business InsightsDashboard, which resides under Sites\Default Web Site.

3 Double click ASP Settings under BusinessInsightsDashboard to set the Request Queue Time-out.

4 In the ASP Settings section, open the Limits Properties node.

5 Select Request Queue Time-out.

6 Enter appropriate time in hours, minutes and seconds. Enter 00:00:00 to wait indefinitely.

7 Close IIS.
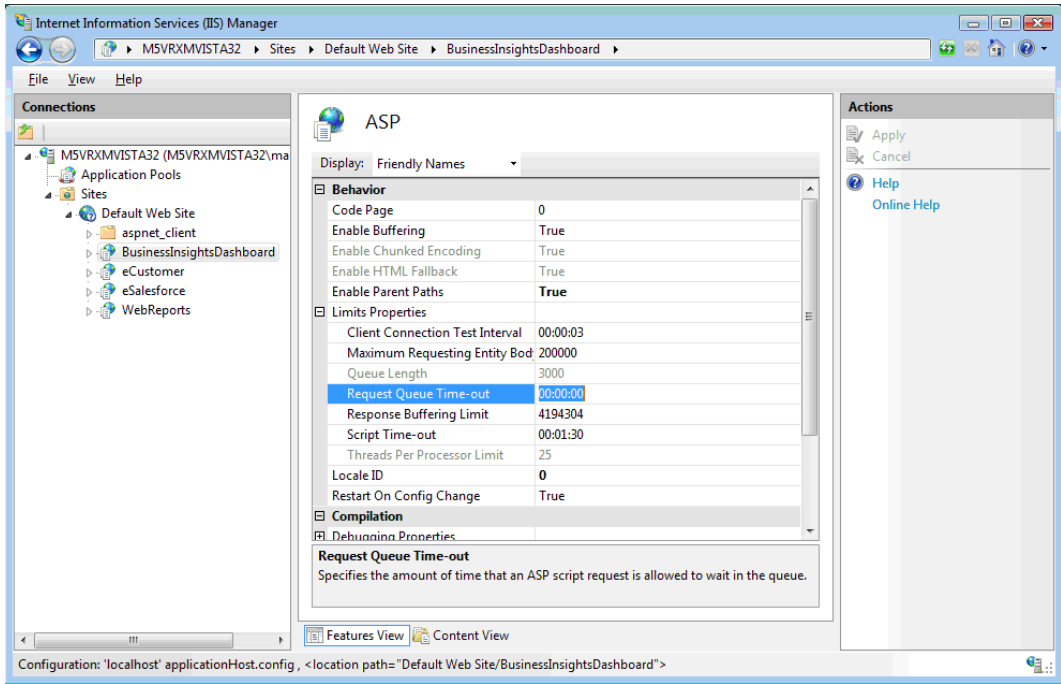
Chapter 7

Resolving Issues with eCustomer and eSalesforce

8

This chapter gives you suggestions on how to resolve issues if they occur with the Web site. You have a number of diagnostic tools you can use, including special pages provided with the Web site and Windows administrative tools such as Component Services and Computer Management.

In this chapter

Diagnostic Web Pages

Overview

Introduction   The eCustomer and eSalesforce Web sites have several pages that provide information about the Web site and report errors. These pages are your first source of information about Web site conditions. You can customize some of these pages to provide additional information to your customers.

Web Site Maintenance Pages

Description   The Web Site Maintenance page is the first place to look if the Web site is not working. There are Web Site Maintenance Pages for eCustomer and eSalesforce. See the following pages for information on opening them:

- eCustomer: See *Configuring the Web Site* on page 91.
- eSalesforce: See *Viewing and Changing the Web Site* on page 130.

eCustomer Web Site Maintenance page   The page for eCustomer site shows the following:

Field	Description
Server	The SQL Server to which the Web site is attached.
Database	The Sage ERP MAS 500 Internet application database used by the Web site.
Open Sessions	The number of people using the Web site.

Field	Description
Unprocessable Sales Orders	The number of transactions in the queue that have not completed processing. (For more information, see *Processing Orders in Queues* on page 183.)

You can also use this page to open the site if it is closed or resume processing. For instructions on opening and using the page, see *Configuring the Web Site* on page 91.

eSalesforce Web Site Maintenance page

The page for the eCustomer site shows the following:

Field	Description
Database Server	The SQL Server to which the Web site is attached.
Database Name	The Sage ERP MAS 500 Internet application database used by the Web site.
Database Status	Whether the database connection is online or offline.
Web Server Open Sessions	The number of people using the Web site.

Customizing Error Message Pages

Changes that can be made

You can customize the pages that appear when an HTML error, eCustomer, or eSalesforce-specific error occurs. The changes you can make include the following:

- Add a company logo and name.

- Provide more descriptive information about the error. For an authorization error page, you can add that you need a logon and password to enter the site and describe who to contact to get them.

- Provide contact information customers can use to get help. You can include a phone number and generic e-mail address.

These are described in the following sections.

eCustomer-specific error message pages

eCustomer has the following error message pages that indicate conditions of the site. These pages are located in the eCustomer Common folder:

- BrowserError.htm: Indicates that the customer is trying to view the eCustomer Web site with a browser that is not supported.

- SiteNotConfigured.htm: Indicates that the Web site is not configured for a company in the Sage ERP MAS 500 database.

- StoreClosed.htm: Indicates that the store is closed. For more information, see *Managing the Site* on page 93.

eSalesforce-specific error message pages

eSalesforce has the following error message pages. These are located in the eSalesforce Common folder:

- AccessDenied.htm: Indicates that the salesperson does not have access rights to use the Web site. Make sure that the salesperson has been properly set up as shown in *Setting Up Salespeople* on page 124.

- Error.htm: Indicates that eCustomer has not been set up and configured, if you are using it with eSalesforce.

- SiteNotConfigured.htm: Indicates that the eSalesforce Web site has not been set up correctly and cannot be opened.

Customizing HTML error message pages

To customize HTML error messages and pages, run Internet Information Services. You should be knowledgeable about HTML errors and what causes them.

Perform the following:

1   Select Windows Start menu > All Programs >
     Administrative Tools > Internet Information Services.

2   In the Tree pane, expand the server name, and then
     Default Web Site. Look for the name you assigned to
     the eCustomer Web site.

3   Right-click the eCustomer Web site name and select
     Properties. In the Properties window, click Custom
     Errors. The following figure shows the Custom Errors
     tab.
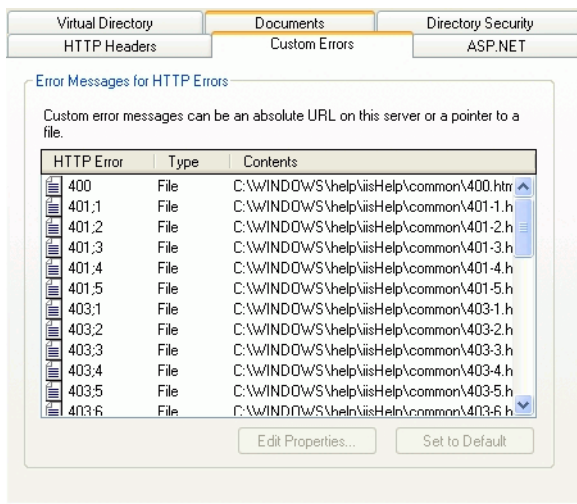
4   Double-click the error you want to change. A properties
     window for the error opens. You can change the
     attributes to have the Web server display the default
     text, open an error page, or jump to another URL if the
     error occurs.

5   To make an error page appear, specify the location of the page on the Web server. Normally, the error page files are located at C:\Windows\help\iisHelp\common.

You can edit the error pages in Visual InterDev or any HTML editing tool. Add the information, links, and images you want and save the file. Make sure that the Internet Information Services refers to that page if the error occurs.

Troubleshooting Issues

Overview

**Introduction**   This section shows how to use the diagnostic tools to resolve issues.

Viewing System Messages

Introduction   The Event Viewer lists activity that occurred on the system, including system and error messages. If there is an error in using the Web site, use Event Viewer to see the details.

Procedure   To view system events, follow these steps:

1   You can either start Event Viewer directly, or you can view system events from the Component Services window. Start the Event Viewer by doing either of the following:

  ▶   To see events in the Components Services window: Select Windows Start menu > All Programs > Administrative Tools > Components Services. In the Component Services window, look for "Event Viewer (Local)" near the bottom of the Tree pane. Expand the folder for Event Viewer to see the type of events listed.

  ▶   To open the Event Viewer directly: Select Windows Start menu > All Programs > Administrative Tools > Event Viewer.

2 Click Application to view the events related to the Internet Applications. The following figure shows an example of system messages.
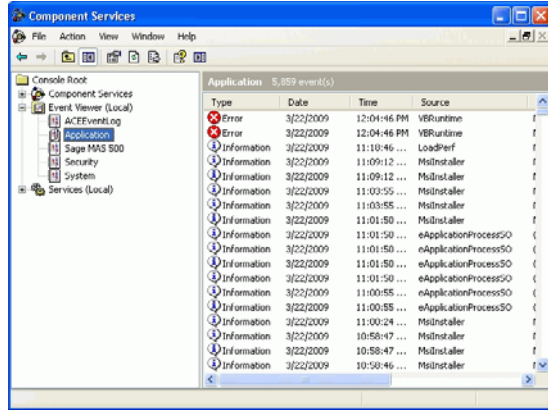
3 To view details about an item in the Event Viewer, double-click it to open the Event Properties window.
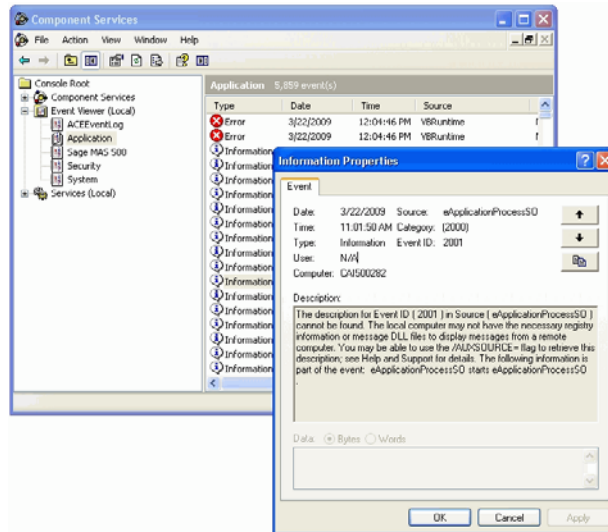
Processing Sales Orders with Errors

Introduction   When customers generate sales orders from the eCustomer Web site, they are saved in a staging area in the Internet application database. If the order does not have errors, it updates the system immediately and is removed from the staging area. If the sales order has errors, it remains in the staging area.

You can identify sales orders with errors from Sage ERP MAS 500 by using the Import Sales Order task in Sales Order. Then, you can either correct the sales orders and try processing them again or purge them.

Errors that can be corrected   If a sales order has an error, it might be from one of the following reasons:

- The data was entered incorrectly at the Web site, such as the buyer left off a quantity. The buyer should correct the sales order at the Web site. If the buyer cannot correct the sales order, purge it from Sage ERP MAS 500 and either have the buyer reenter the order or try to recreate it yourself from Sage ERP MAS 500 based on the information from the error report.

- The item ordered is inactive, discontinued, deleted, or the quantity ordered converted to the sale unit of measure is below the minimum sale quantity entered in Maintain Items.

- A change was made to Sage ERP MAS 500 so that the order is invalid, such as removing an item from inventory or deleting a ship-to address. You need to correct the problem in Sage ERP MAS 500 and then attempt to process the order again.

**Procedure for
sales orders with
errors**

Follow these steps:

1 Select Sales Order Activities menu > SO Utilities >
Import Sales Orders. The following window appears:

Process
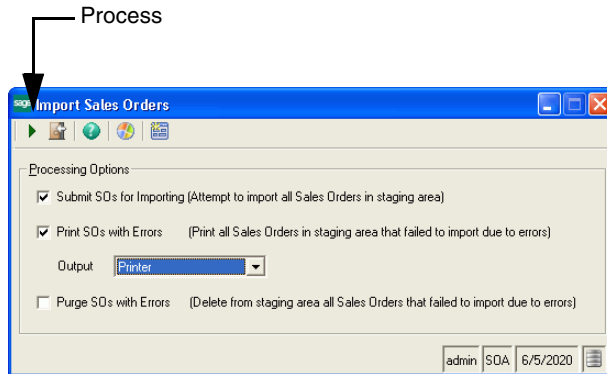
2 Run a report of errors first. Make sure that *only* the Print
SO with Errors check box is selected. Clear all the other
check boxes. In the Output field, select to send the
report directly to a printer or display it in a preview
window. Click the Proceed button.

3 Correct the conditions that caused the errors, such as
replacing a unit of measurement or item that was
removed. Then, in the Import Sales Orders window,
select the Submit SOs for Importing and Print SO with
Errors check box and click the Proceed button.

Sales orders that no longer have errors are updated in the
system and removed from the staging area. The report
runs after the system attempts to update the database.
Any sales orders that could not be updated appear on the
report.

4 To purge sales orders with errors, select the Purge SOs
with Errors check box *only* and click the Proceed button.
All sales orders with errors are removed from the staging
area and cannot be recovered.

Requirement for ProcessWebSOUser

Introduction ProcessWebSOUser is a Sage ERP MAS 500 user assigned to all sales orders as they are populated in the application database. The system requires a valid Sage ERP MAS 500 user ID in order to add transactions to the database.

Recreating ProcessWebSO-User If you delete the user ProcessWebSOUser, no more sales orders can be added to the application database until the user is recreated. For instructions on how to recreate a user, refer to the *Installation and System Configuration* guide. Use these general steps:

1 Create ProcessWebSOUser as a user of the SQL Server where the Sage ERP MAS 500 databases are located. You can assign any password.

Important: Type ProcessWebSOUser in the exact case and spelling shown. If you do not type the user name exactly, the logon will not work and sales orders will not be added to the application database.

2 In System Manager, use Maintain Users to make ProcessWebSOUser a Sage ERP MAS 500 user for one of the companies. Assign it to the Public security group. This logon is strictly for database access only and is not used for logging into the client.

Processing Orders in Queues

Description If transactions are unprocessable and does not appear in the database, or if buyers are unable to view information they requested, it could be because the transactions are still in the queue. This section explains how to fix them.

How queues work This section explains how queues are used in eCustomer. This information can help you in resolving problems with unprocessable sales orders.

The following queues are set up for eCustomer:

- A normal input queue, eapplicationprocessso, that is used for normal transaction transmission.

- Five retry queues. If the transaction fails in the normal input queue, it goes into the first retry queue. The system tries three times to process a transaction in a queue before it goes to the next retry queue. In each level of retry queue, the system waits for an increasing amount of time before attempting processing at the next level.

  The queues are numbered _0 through _4, with _0 as the first retry queue.

- A final resting queue that is used when a transaction cannot be processed in any of the retry queues. Transactions in this queue remain until they are manually moved or purged. The name of this queue ends with _deadqueue.

  The Web Site Maintenance page enables you to retry processing on transactions that are in the _deadqueue.

The following table lists how long the system keeps a transaction in a retry queue before sending it to the next retry queue:

Queue	Queue ID	Delay before retries begin (in minutes)
First retry queue	_0	1
Second retry queue	_1	2
Third retry queue	_2	4
Fourth retry queue	_3	8
Fifth retry queue	_4	16

Methods for processing transaction in the queue

If transactions are stuck in the queue, you can do either of the following to fix them:

• Retry the transactions through the Web Site Maintenance page. The COM+ applications retry processing of all eCustomer transactions in _deadqueue.

• View the queues for the COM+ applications in the Computer Management window. You can then retry or purge transactions in the queue.

Retrying unprocessable transactions

Perform the following to retry unprocessable transactions through the Web Site Maintenance page:

1 Open the Web Site Maintenance page as shown in *Configuring the Web Site* on page 91.

2 Look at the Unprocessable Sales Orders field to see how many transactions are in the queue.

3 Click Retry unprocessable sales orders. The COM+ applications attempt to process the transactions in the queue.

4 Refresh the page. If the COM+ applications are successful in processing the transactions, the Unprocessable Sales Orders field will indicate 0.

Procedure for viewing queues

Follow these steps:

1 Select Windows Start menu > All Programs > Administrative Tools > Computer Management.

2 In the left pane, expand the listing of Services and Applications. Then, expand the folder for Message Queuing. Click Private Queues. The right pane shows the private queues in the system, including the ones for the Internet Applications. A column shows how many transactions are still in the queue.
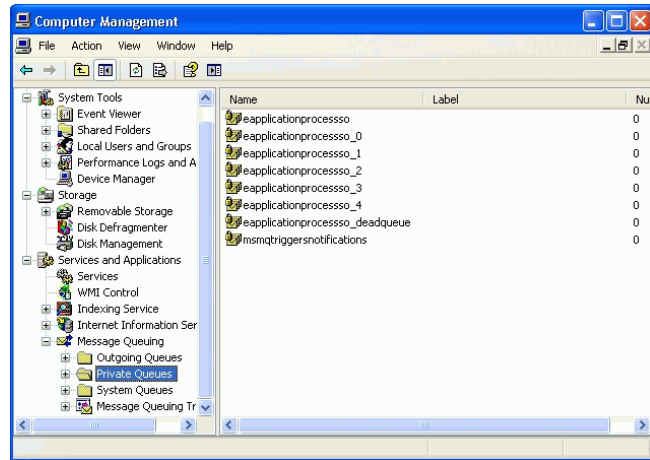
3 Click the queues to view information in them. Drill down to view details. You can purge all tasks in the queue as needed. For information about the queues and how to resolve problems, see the Computer Management online help.

Troubleshooting COM+ Applications

Introduction If you have transactions in the queue, it might be caused by a COM+ application that stopped processing. After you restart it, the transaction should finish processing and clear the queue. This section explains how to restart COM+ applications and fix them so they do not stop processing.

Restarting stopped COM+ applications

To restart a stopped COM+ application, perform the following:

1 Select Windows Start menu > All Programs > Administrative Tools > Component Services. The Component Services window appears.
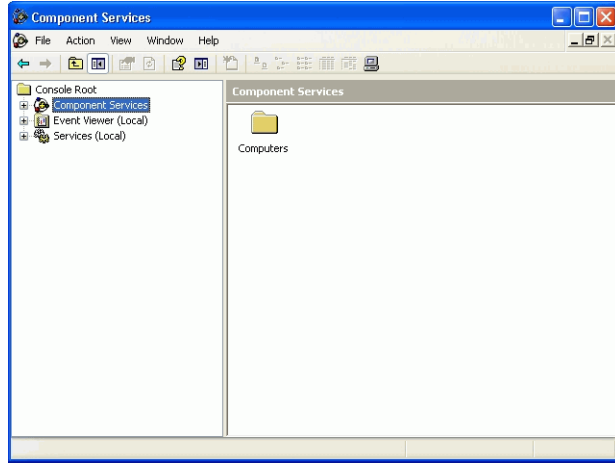
2 In the Tree pane, click Component Services to expand the list. Then click the Computers folder, and then My Computer. Click COM+ Applications. The COM+ applications on your system appear in the right pane as shown:
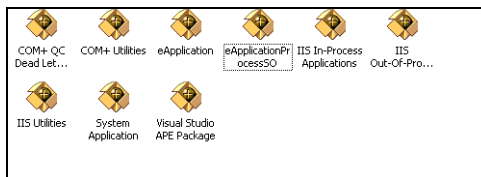
3 Notice that on some of the icons, the ball with the + symbol is rotating. This indicates that the COM+ object is active. To view the status of all the COM+ objects, from the View menu, select Status View. A column indicates whether the COM+ object is running.

4   There are two COM+ applications that directly affect order processing:

▶   eApplication

▶   eApplicationProcessSO

5   To restart a COM+ application, right-click it and from the menu that appears, select Start.

Links Not Working

Introduction   This error can occur when using the Web server as the client. For example, when the site administrator is verifying a good installation. To change the default distributed COM properties, use the following procedure.

Procedure   To change the default distributed COM properties, follow these steps:

1   On the Web server, select Windows Start menu > All Programs > Administrative Tools > Component Services.

2   In the Tree pane, click Component Services to expand the list. Then click the Computers folder, and then My Computer.

3   Right-click My Computer, and click the Default Properties tab.

4   At the Authentication Level field, select Connect.

5   At the Impersonation Level field, select Identify.

6   Click OK, and Yes at the message dialog box.

Internet Explorer Client Appearance and Script Errors

Introduction   These errors can occur when the form of styles is not applied, images do not appear, or script error problems appear when using Internet Explorer version 8. These errors usually occur when the Compatibility View is disabled.

Procedure   To enable the Compatibility View on the client, follow these steps:

1   From Internet Explorer, select Tools.

2   Select Compatibility View.

Note: If the Compatibility View option is disabled, the option is already turned on for this site. This means there are other issues with the site.

Tip: The error may also occur if Internet Explorer version 8 with a Web server installation is running Internet Information Services (IIS) 5. Consider upgrading IIS 5 to a higher version.

Alternate setting   If the Compatibility View is disabled, follow these steps to add the site.

1   From Internet Explorer, select Tools.

2   Select Compatibility View Settings.

3   Select the Display intranet sites in Compatibility View check box, and click Close.

Note: If you do not want to select all intranet sites, click Add to add only this site in the compatibility list.

Changing Settings

Overview

Introduction   The default settings created by the installation can be changed as shown in this section. These procedures require a familiarity with Windows Server and IIS.

Changing the COM+ Logon

Introduction   To change the logon used for COM+ applications, set up a dedicated user and assign the user name and password to the COM+ applications. For an explanation of COM+ applications and dedicated users, see *Settings Generated Automatically by the Installation* on page 56.

Procedure   Follow these steps:

1   On the Web server, create a local administrator user. This can be a local user on the Web server or one in the domain where the Web server is located. Perform the following:

▶   Select Windows Start menu > All Programs > Administrative Tools > Computer Management.

▶   In the Tree pane of the Computer Management window, click Local Users and Groups.

▶   In the Computer Management window, click Groups. A list of security groups appears. Right-click Administrators and select Add to Group.

▶   Click Add and add the user you want to the Administrators group.

If the user does not exist on the computer or on the domain where the computer is connected, create the user. Perform the following:

▶ Right-click the Users folder and select New User.

▶ Create a logon and password. Make sure that the password is at least six characters and is different from the user name.

▶ Grant the dedicated user Admin rights over COM+ applications. The user does not need rights over anything else.

2 In SQL Server, grant the user access to SQL Server and the Sage ERP MAS 500 databases. Perform the following:

▶ Select Windows Start menu > All Programs > Microsoft SQL Server > Enterprise Manager.

▶ In the left pane, click the SQL Server. Then, click Security.

▶ Right-click Logins and select New Login.

▶ On the General tab, type the user's name and select either Windows authentication or SQL Server authentication.

To grant sa status to the user, on the Server Roles tab, put a check in the System Administrator box.

On the Database Access tab, put checks in the Permit box for each of the Sage ERP MAS 500 databases. In the Database roles box for each database, put a check in the db_owner.

3 Make a note of the user's logon and password so that you can enter them when you run the installation.

You do not need to grant access from within Sage ERP MAS 500 as you would with any other Sage ERP MAS 500 user.

4 Open Component Services. Select Windows Start menu > All Programs > Administrative Tools > Component Services.

5 In the Tree pane, expand this list for Component Services to list the Computers folder, and then My Computer. Expand My Computer and then click COM+ Applications.

6 Right-click the COM+ application and select Properties.

7 Click the Identity tab. The Properties window looks like this:
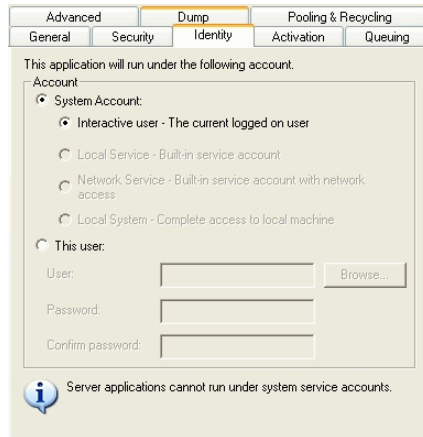
Select "This user." Type the user name and password of a dedicated SQL Server and Sage ERP MAS 500 user and click OK.

Changing the Link to the Database

Introduction   You need to configure the data link files for each of the Internet Application Web sites. For each data link file, assign the name (and password, if you use SQL Server authentication) of any user with DBO privileges for the Sage ERP MAS 500 database.

Using Windows integrated security   If you are using a logon with Windows integrated security for the data link file, perform the following:

- Set up OLE DB access to the SQL Server.

- Make sure that the logon is authenticated in the domain where the SQL Server is located.

- For trusted connections, use Named Pipes or Winsock.

Changing the link   To change the link, follow these steps:

1   Log into the Windows Server where the Web server is located.

2   Do either of the following to open the DataLink Properties window:

  ▶   Select Windows Start menu > All Programs > Sage ERP MAS 500 Internet Applications. In Sage ERP MAS 500 Internet Applications, select the Web site you are configuring and click the Data Link Configuration command.

▶ In Windows Explorer, locate icConn.udl in the Setup folder for the Internet Application. (For eSalesforce, the file is in C:\inetpub\wwwroot\eSalesforce\Setup). Double-click the file.
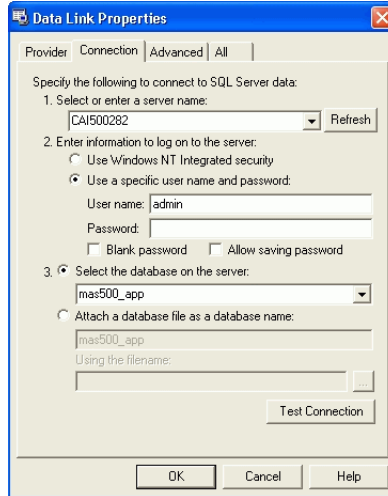
3 Click the Connection tab. Set the options in the Connection tab as follows:

▶ Under number 1, select the SQL Server where the Sage ERP MAS 500 databases are located. If the server you need does not appear, click Refresh or type the name of the server into the field.

▶ Under number 2, select how you log into the SQL Server. You can use either Windows authentication or the SQL Server logon of any database owner.

▶ To use SQL Server, select "Use a specific user name and password." If the user has a password, enter it. If the user does not have a password, leave the Password field blank and select the box "Blank password." In either case, select "Allow saving password."

▶ To use Windows integrated security, select "Use Windows NT integrated security."

▶ Under number 3, select the Sage ERP MAS 500 database for the Web site:

Internet Application	Connect to database
eCustomer	_iapp
eSalesforce and Business Insights Dashboard	_app

▶ If the database does not appear on the list, click Refresh to the right of the server selection field.

The other tabs do not need to be changed.

4   To verify the settings, click Test Connection. A dialog box appears that indicates whether or not the connection worked.

5   Click OK. The connection to the Internet application database is established.

Changing settings   You can run the data link file at any time to change the database to which the Web site is connected. For example, you might connect to a demo database when developing the site and then connect to the production database when you are ready to go live.

If there are people using the Web site when you make changes to the data link file, they will continue to use the old settings until the application is unloaded or the data link file is reloaded; therefore, you should have all users log off of the Web site while you make changes.

Chapter 8

Troubleshooting Business Insights Dashboard

9

This chapter gives you suggestions on how to resolve issues if they occur with the Web site. You have a number of diagnostic tools you can use, including special pages provided with the Web site and Windows administrative tools such as Component Services and Computer Management.

In this chapter

Verify the Correct ASP.NET Version Is Used

Overview
Use the following procedure to verify the version number when using ASP.NET with Business Insights Dashboard.

Windows XP and Windows 2003 Server Procedure
To determine the ASP.NET version number

1   Launch Internet Information Services (IIS) Manager from Administrative Tools folder.

2   Select the name of the installed Business Insights Dashboard, which resides under Web Sites\Default Web Sites.

3   From the menu, select Action, and then Properties.

4   Click the ASP.NET tab.

5   Verify the site is using the supported ASP.NET version. For supported version information, see the *Sage ERP MAS 500 Compatibility and Resource Guide*.
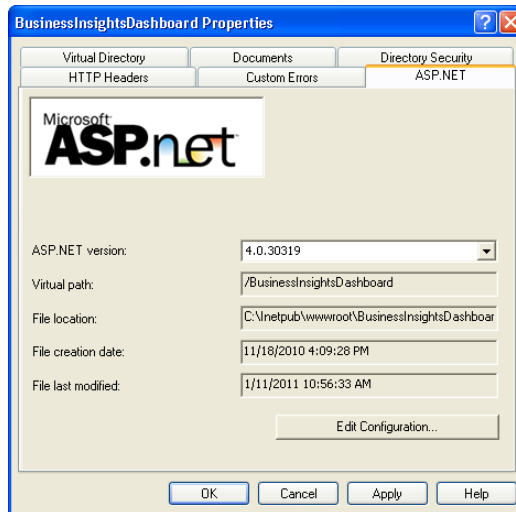
Windows Vista, Windows 2008 Server, and Windows 7 Procedure

To determine the ASP.NET version number

1   Open the Internet Information Services (IIS) Manager program from the Administrative Tools folder.

2   Select the name of the installed Business Insights Dashboard, which resides under Sites\Default Web Site.

3   On the Actions pane click Basic Settings. Verify the site is using the supported ASP.NET version. For supported version information, see the Sage ERP MAS 500 *Compatibility and Resource Guide*.

Script Error Message on Login Page

Overview   The script error "Sys is undefined" appears only on the login page and does not affect the behavior of the site or the functionality of any of its features. This error can occur on Internet Explorer version 8 clients using Forms Authentication for the site installed on a Web server running Internet Information Services (IIS) version 7. To change the site application pool to Classic.Net, perform the following procedure.

Procedure   To change the site application pool to Classic.Net

1   Launch Internet Information Services (IIS) Manager from Control Panel > Administrative Tools.

2   Select the <server> > Sites > Default Web Site.

3   Right-click the BusinessInsightsDashboard site, and select Managed Applications > Advanced Settings.

4   In the General section of the property list, select the Application Pool row.

5   Click the ellipses button on the right section of the current value.

6   At the Application Pool field, select Classic.Net AppPool, and click OK.

7   Click OK again until you are returned to the Internet Information Services (IIS) Manager.

8   Close the IIS Manager window.

Additional information

For more information, refer to the following Microsoft Web sites:

- ▶ http://learn.iis.net/page.aspx/101/introduction-to-iis7-architecture/
- ▶ http://msdn.microsoft.com/en-us/library/microsoft.web.administration.applicationpool.managedpipelinemode.aspx
- ▶ http://msdn.microsoft.com/en-us/library/microsoft.web.administration.managedpipelinemode.aspx

Failure to Access the IIS Metabase

Overview This problem may be caused by a missing ASP.NET windows process account. The ASP.NET windows process account is an operator for the IIS Default Web site. To correct the problem, perform the following procedure.

Procedure To add the ASP.NET windows process account

1 Launch Internet Information Services (IIS) Manager from Administrative Tools folder.

2 Expand to find the Default Web site.

3 Right-click the Default Web site and select Properties.

4 Click the Operators tab.

5 If LOCALMACHINE\ASPNET is not in the list (where LOCALMACHINE is the name of the IIS Machine, for example KMSWINSQL), click Add.

6 Type LOCALMACHINE\ASPNET, and then click OK. For example (KMSWINSQL\ASPNET) as shown below:
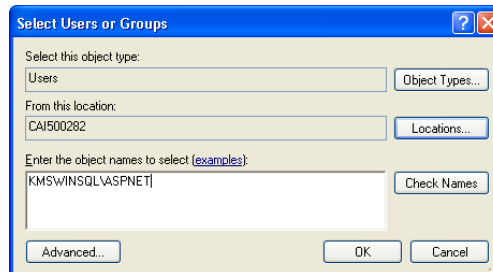
7 Click OK on the Default Web Site Properties window.

8 Run Business Insights Dashboard to determine if the problem is corrected. If the problem persists, refer to the following articles on the Microsoft Web site:

▶ http://support.microsoft.com/kb/267904

▶ http://support.microsoft.com/kb/555583

If the problem continues to persist, perform the following:

1 Select Windows Start menu > Run and type cmd. Click OK.

2 Change the IIS hard drive: + \inetpub\AdminScripts folder. For example, c:\inetpub\AdminScripts

3 Type cscript adsutil.vbs, and delete w3svc/1/ AdminACL.

HTTP 403 Error Message

Overview   Use the following procedure to verify that the default
                 document is Default.aspx in the IIS Properties window.

Procedure   To verify that the default document is Default.aspx

   1   Launch Internet Information Services (IIS) Manager
           from the Administrative Tools folder.

   2   Select the name of the installed Business Insights
           Dashboard, which resides under Web Sites\Default Web
           Sites.

   3   Select Action menu > Properties.

   4   Click the Documents tab.

   5   Verify the Enable Default Document check box is
           selected and Default.aspx is the first entry in the list. If
           it is not in the list, then add it and make sure it is
           moved to the top of the list.
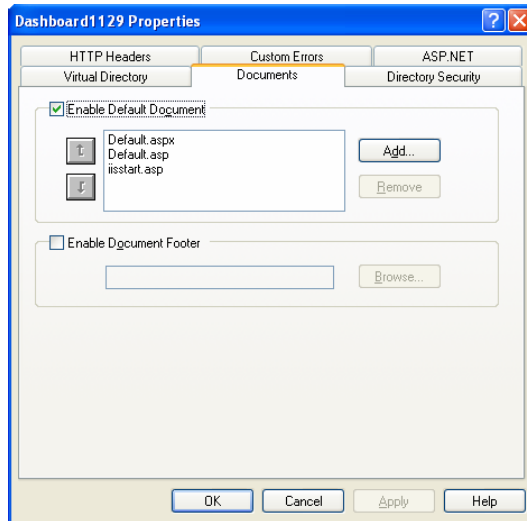
Verifying anonymous access

Verify the Anonymous access check box is cleared in Directory Security. To do this, perform the following procedure.

Procedure

To verify the Anonymous access setting

1   Launch Internet Information Services (IIS) Manager from Administrative Tools folder.
2   Select the name of the installed Business Insights Dashboard, which resides under Web Sites\Default Web Sites.
3   Select Action menu > Properties.
4   Click the Directory Security tab.
5   Click Edit for Authentication methods.
6   Verify that the Anonymous access check box is cleared.

Verifying ASP.NET allows permissions

For a Windows 2003 Server, verify the ASP.NET is allowed permissions.

Procedure

To verify ASP.NET allows permissions

1   Launch Internet Information Services (IIS) Manager from Administrative Tools folder.
2   Expand the appropriate nodes in the IIS to locate the Webservice Extensions node
3   Select Action menu > Properties.
4   Select Webservice Extensions.
5   Find a list of prohibited extensions on the right.
6   Select ASP.NET and allow it.

Links Not Working

Introduction   This error can occur when using the Web server as the client. For example, when the site administrator is verifying a good installation. To change the default distributed COM properties, use the following procedure.

Procedure   To change the default distributed COM properties, follow these steps:

1   On the Web server, select Windows Start menu > All Programs > Administrative Tools > Component Services.

2   In the Tree pane, click Component Services to expand the list. Then click the Computers folder, and then My Computer.

3   Right-click My Computer, and click the Default Properties tab.

4   At the Authentication Level field, select Connect.

5   At the Impersonation Level field, select Identify.

6   Click OK, and Yes at the message dialog box.

Internet Explorer Client Appearance and Script Errors

Introduction   These errors can occur when the form of styles is not applied, images do not appear, or script error problems appear when using Internet Explorer version 8. These errors usually occurs when the Compatibility View is disabled.

Procedure   To enable the Compatibility View on the client, follow these steps:

1   From Internet Explorer, select Tools.

2   Select Compatibility View.

    Note: If the Compatibility View option is disabled, the option is already turned on for this site. This means there are other issues with the site.

    Tip: The error may also occur if Internet Explorer version 8 with a Web server installation is running Internet Information Services (IIS) 5. Consider upgrading IIS 5 to a higher version.

Alternate setting   If the Compatibility View is disabled, follow these steps to add the site.

1   From Internet Explorer, select Tools.

2   Select Compatibility View Settings.

3   Select the Display intranet sites in Compatibility View check box, and click Close.

    Note: If you do not want to select all intranet sites, click Add to add only this site in the compatibility list.

Unable to Export to Excel

Introduction   In certain instances the "The file is corrupt and cannot be opened" error message may appear when exporting the contents of the grid to Excel. This error indicates that Excel 2010 security settings are prohibiting the exported file from being opened.

Procedure   Follow these steps to change Excel 2010 security settings so the exported file can be opened:

1   Open Excel 2010.

2   Click File and select Options.

3   In the Excel Options window, click Trust Center.

4   In the Excel Options Trust Center pane, click Trust Center Settings.

5   In the Trust Center window, clear the following:

   ► Enable Protected View for files originating from the internet

   ► Enable Protected View for files located in potentially unsafe locations.

6   Click OK to close the Trust Center window.

7 Click OK to close the Excel Options window.
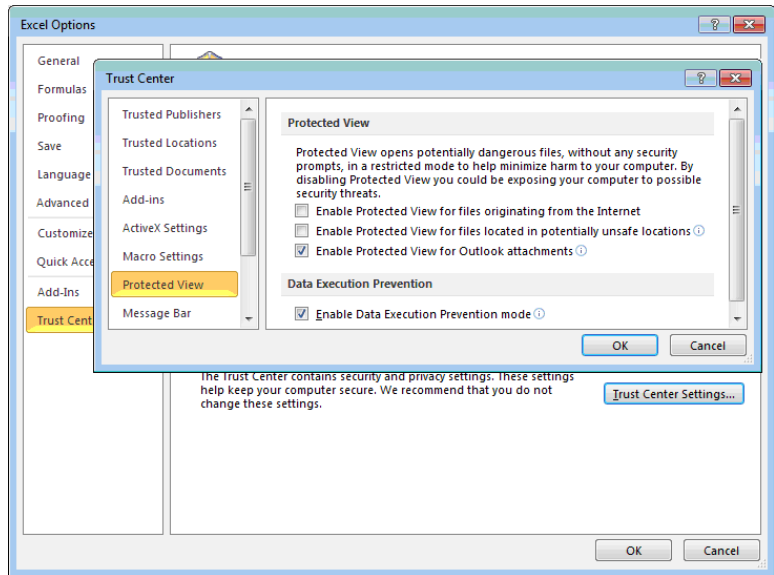
Error Messages

Connection failure

If you receive a connection failure message similar to the following, refer to *Configuring ASP.NET* on page 138.
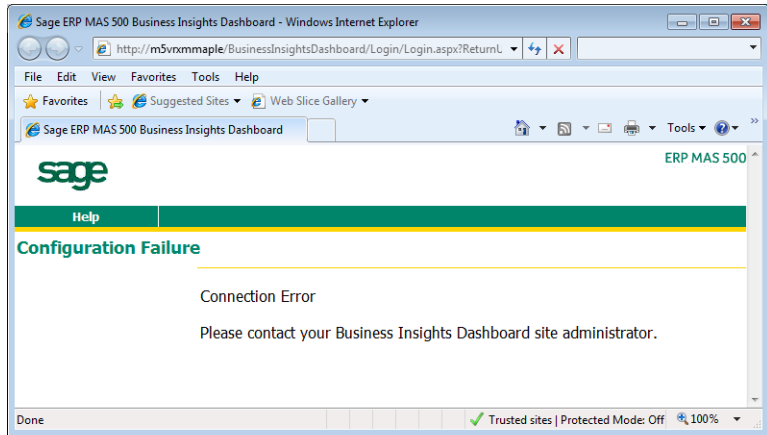
Invalid character error when viewing a Dashboard

The following error message appears when you open the Web page to view the Dashboard: "A name was started with an invalid character. Error processing resource 'http://ws2003ent/BusinessInsightsDashboard/" Line 1.

To resolve this issue, run aspnet_regiis.exe.

No data appears for the financial Dashboard content

Use Set Up CI Options to update data.

1   Select Common Information Maintenance menu > CI Setup > Set Up CI Options.

2   On the Internet Applications tab in the Set Up CI Options window, click Update Now.

If the data is still showing all zeros in the Dashboard content, there is a possibility that the user set up to run the SQL Agent job to populate the tables does not have the appropriate security setup to execute the stored procedure the job uses.

Perform the following steps for SQL Server:

1 Launch SQL Server Management Studio.

2 Connect to the server you are using.

3 Under Management, launch the SQL Server Agent.

4 Select Jobs.

5 Find the job for the Dashboard (for example, MAS 500 mas500_app Dashboard).

6 Right-click the job and select Properties. Change the owner to a user who has permissions to run the stored procedure.

7 In Sage ERP MAS 500, run Set Up CI Options to update the data (accessed by selecting the Common Information Maintenance menu > CI Setup menu > Set Up CI Options).

Perform the following steps for SQL 2005:

1 Launch SQL Management Studio.

2 Connect to the server you are using.

3 Open the SQL Server Agent.

4 Find the Dashboard job (for example, MAS 500 mas500_app Dashboard).

5 Right-click the job and select Properties. Change the owner to a user who has permissions to run the stored procedure.

6 In Sage ERP MAS 500, run Set Up CI Options to update the data (accessed by selecting the Common Information Maintenance menu > CI Setup menu > Set Up CI Options).

Chapter 9

Customizing eCustomer and eSalesforce **10**

The eCustomer and eSalesforce Web sites can be customized. This chapter provides information about how to modify the appearance of these Web sites.

This chapter briefly describes how the Web pages interact with COM+ applications to use information in the Sage ERP MAS 500 database.

The Business Insights Dashboard Web site can be customized using Visual InterDev or Visual Studio.

In this chapter

Web Site Design and Layout

Overview

Introduction   This section explains the design and format of the eCustomer and eSalesforce Web sites and the tools used to develop them so that you can decide how to customize the Web pages.

Requirements for customizing sites   Before using the information in this section, you should have knowledge in developing and editing Web pages with HTML, Active Server Pages, and cascading style sheets (CSS).

eCustomer Standard Page Layout

Description   Pages in the eCustomer Web site use a frameset with menus, contents, and navigational controls. The following figure shows the frames:
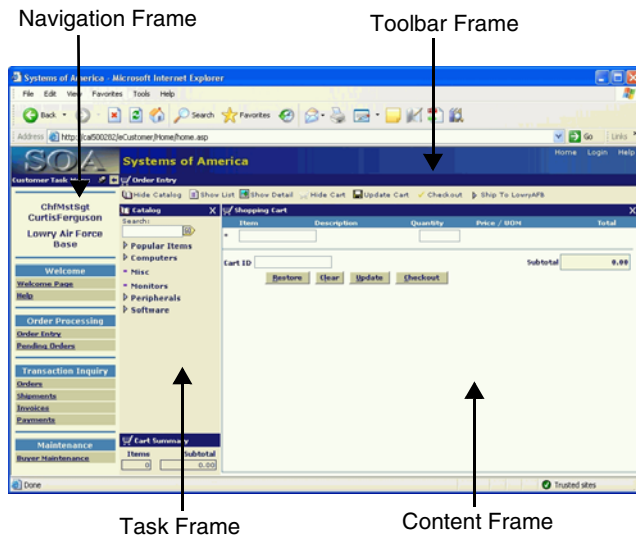
Navigation frame   The navigation frame provides links to important pages of the Web site. It also contains the company name and logo.

Toolbar frame   The toolbar frame contains buttons that perform certain functions, such as displaying, hiding, and updating information in the task or content frame.

Task frame   The task frame contains navigation controls specific to the material in the content frame.

Content frame   The content frame shows the results of the tasks performed from the task or toolbar frame. Depending on the function, the content frame might contain additional nested frames.

Nesting of frames   The following figure shows how the frames are nested within each other according to the HTML coding of the main frame.
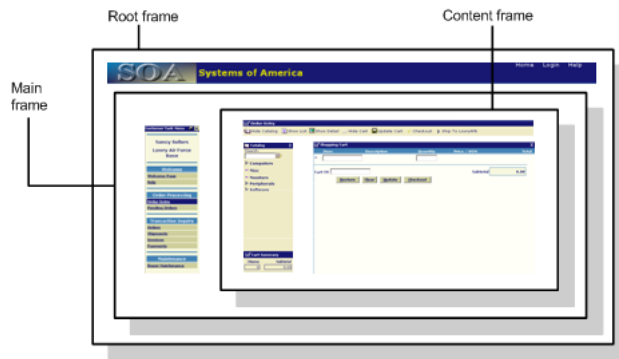
Recommendation on customizing layout   You should keep the User Login branch of the Web site in its default layout. If you want to make significant changes to the layout of these pages, you need information about how data is drawn from the COM+ applications. You should also plan for substantial development and testing time.

Appearance when launched from eSalesforce

When users launch the eCustomer Web site directly, it appears as shown on . When salespeople launch the eCustomer site from eSalesforce, the eCustomer site uses the stylesheets for eSalesforce. The Navigation frame changes slightly to show just the company name and not the logo.

eSalesforce Standard Page Layout

Layout

The layout for eSalesforce is similar to eCustomer. It is divided into frames.

Stylesheets and Themes

Introduction to themes

The appearance of each Web site is set by a theme. You can change the appearance of the site by changing the theme as a whole or modifying individual cascading stylesheets.

Stylesheets

The eCustomer and eSalesforce Web sites have the following stylesheets. These are located in the Theme\CSS folder:

- Main.css contains master styles that apply throughout the site.

- Individual pages have CSS files that apply to that particular page.

Most pages in the Web site refer to both the main and a page-specific stylesheet. These are declared in the page source as shown in the following example:

```
<link REL="stylesheet" TYPE="text/css" HREF="../Themes/
Main.css">
<link REL="stylesheet" TYPE="text/css" HREF="../Themes/
Navigation.css">
```

The page-specific CSS file is declared last so that the styles override those in Main.css.

If you are just using the global Web site styles, you only need to link to the Main.css stylesheet. If you are planning to create styles that are specific to the page you are creating, create a separate CSS file for that page. Do not add or modify styles in Main.css because the changes will affect all pages on your site.

Cascading stylesheet rules

The eCustomer and eSalesforce Web sites follow standard HTML cascading stylesheet rules. The page-specific stylesheet (in this case, Navigation.css) overrides styles in Main.css. If there are inline formats in the HTML or Active Server Pages file, those override the settings in both stylesheets.

Avoiding inline styles

The pages in the Web sites, as installed, do not use inline styles. Change formats only by modifying the stylesheets and do not apply formats manually to the pages. This makes it easier for you to make future format changes to the Web site.

eCustomer and eSalesforce stylesheets

The eCustomer and eSalesforce stylesheets are separate and not interchangeable. Each set of stylesheets needs to be in the Themes folder for their Web site.

Images

Location of site images

Buttons, icons, backgrounds, logos, and other graphics used by the Web site are located in the Images folder. The Images folder does not include images of items sold through the Web site. For more information about item images, see *Adding Images and Descriptions to an Item* on page 107.

The eCustomer and eSalesforce Web sites each have a separate Images folder. Link only to files in the Images folder for the site. If you have a graphic in the eCustomer site that you want to use on the eSalesforce site, copy the file to the Images folder for eSalesforce.

Graphic formats   The graphics provided with the Web site are basic GIF and JPG files that you can edit in any graphics editor that supports these formats. You can add animated GIFs and other graphic formats supported by Internet Explorer.

Requirements for graphics   Note the following as you customize graphics:

- Note the color depth and resolution of the graphic. If you modify an existing graphic, retain the same color depth and resolution, if possible. Saving the graphic with different settings might affect the image quality and possibly change the size.

- Keep the graphic at the same size, if possible. If you need to change the size of a graphic, you might also need to change the settings on the pages and frameset.

- Keep the graphics in the Images folder. The Web pages are written to look for graphics in that folder. If you change the folder or add subfolders, adjust the references to the graphics on your pages.

- Test the Web site with the new graphics. Make sure that all the graphics are visible. Consider looking at the site with different numbers of colors.

- Make sure you have legal rights to all graphics you use.

Graphics of upgraded sites   If you are upgrading an existing eCustomer or eSalesforce Web site, note that the locations of the Web page folders will change when you upgrade. Update any specific folder references made in your Web pages.

Customization Techniques

Overview

Introduction
This section provides general guidelines and techniques for customizing the eCustomer and eSalesforce Web sites. It is assumed that you know how to write Active Server and HTML pages and use Visual InterDev. If you have questions, see the Visual InterDev documentation and books on Active Server Pages and HTML.

Making extensive changes
If you make more extensive changes than those shown here, make them on a copy of the original Web site and plan on extensive development and testing time.

Use of Visual InterDev

Recommendation for Visual InterDev
The eCustomer and eSalesforce Web sites were originally designed with Microsoft Visual InterDev provided with Visual Studio 6.0. You should use Visual InterDev or Visual Studio to customize the Web sites, including the Business Insights Dashboard Web site. See the Visual InterDev and Visual Studio documentation for instructions on using the software.

Setting up sites as Visual InterDev projects
You can set up each of the Web sites as Visual InterDev projects to make them easier for you to manage and update. You first need to install Server Extensions on the site in order to open it as a Web project in Visual InterDev. Follow these steps to apply the extensions and open the site as a project:

1 Select Windows Start menu > All Programs > Administrative Tools > Internet Information Services.

2 In the Tree pane, expand the list for the Web server, and then the list for Default Web Site.

3 Right-click a Web site, select All Tasks, and then Configure Server Extensions. The New Subweb Wizard appears. Complete the questions in the wizard. When you are finished, close Internet Information Services.

4 Perform the following to import the project into Visual InterDev:

a Start Visual InterDev. The New Project wizard starts automatically. If it does not, select New from the File menu.

b In the New tab, select New Web Project. Follow the instructions in the window to assign a name and location to the site.

c When prompted, select the server where the eCustomer or eSalesforce Web site is located. You should use Local mode so that changes do not affect the Web site until you are ready to send the new files to the server. Click Next to continue.

d To specify the Web site, select "Connect to an existing Web application on" and then select the eCustomer or eSalesforce Web site. If you do not see the Web site in the Name field, apply the Server Extensions to it. Cancel the wizard and repeat step 3.

e Click Finish to start importing the Web site. If you are prompted to install the Visual InterDev Script Library, click Yes.

5 Repeat steps 3 and 4 for the other Web site.

Customizing How Databases Communicate with Pages

Introduction

The Active Server Pages communicate with the COM+ applications to retrieve data from and send it to the Sage ERP MAS 500 databases. These pages do not communicate directly with the databases.

Use of COM+ components and JScript

When the Active Server Pages draw data from COM+ applications to render on a Web page, they use JScript that calls classes in the stylesheet to determine how the data appears. This is how each line of a list of items appears in alternating shades and is highlighted when you move the mouse over it.

Making extensive customizations

To make more extensive customizations in how the Active Server Pages use data, use the SDK. The SDK contains information about Sage ERP MAS 500 database tables and how to customize databases as needed. To customize the COM+ applications to change what information is retrieved from and sent to the databases, contact Sage for information about source code availability.

Use extreme caution in customizing Active Server Pages and COM+ applications to change how the Web site uses data. Errors in programming can render the Web site unusable and possibly corrupt the databases. Always develop customizations on backups of the Web site and databases and verify that they work before using them on production data.

Site Customization

Overview

Introduction   The eCustomer and eSalesforce Web sites can be customized to fit your existing Web site and use your company fonts and color scheme.

This section describes the customizations that can be performed on the site. Unless noted otherwise, this information applies to both eCustomer and eSalesforce.

Required Customizations

Introduction   This section describes customizations that need to be made to the eCustomer and eSalesforce Web sites.

eSalesforce customizations   The eSalesforce Web site does not need to be customized in order for you to use it. The Web site draws the company name from the Sage ERP MAS 500 database and displays it in the Navigation frame.

You can customize the eSalesforce Web site, but these changes are not needed before going live with the site.

eCustomer customizations   The eCustomer Web site requires some customizations before using it. These customizations are described here. There are several changes that are necessary to make your Web site ready to go online:

- Configure your existing home page or create a new one.

- Add your company logo and name.

- Add contact information.

- Change to your corporate colors and text formats.

- Change links on the home page.

- Link to your production database.

Configuring or creating a home page

You probably have a Web site of your own to which you are adding the eCustomer Web site. If so, perform the following:

- Link the eCustomer Web site to your existing home page. The eCustomer Web site has a logon page, LoginDirect.asp, that is designed to integrate with existing Web sites. It does not have the navigation frame and home page menu.
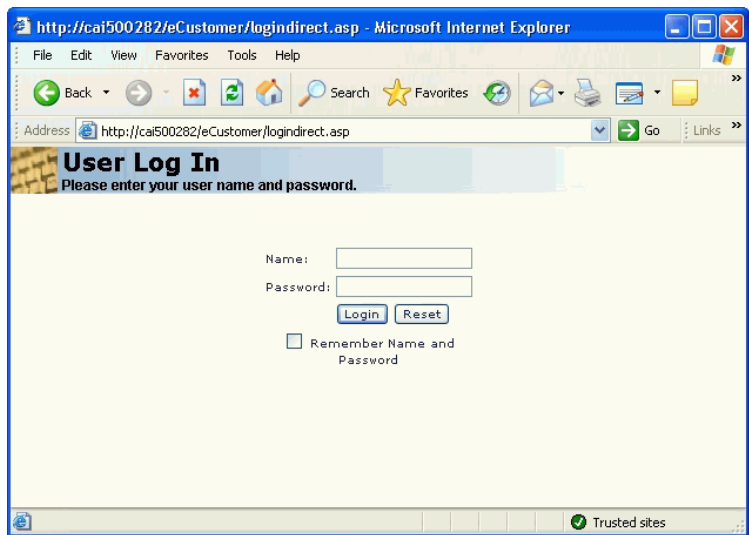
Have this page open in a separate browser window. After the user logs in, the eCustomer Web site uses a frameset that requires the whole browser window.

- Run Internet Information Services and set the default home page for the eCustomer Web site to be the home page of your site. If buyers type the URL for the eCustomer Web site, they will go to your main home page instead. For more information, see the section about changing the default home page in *Customizing the Sample eCustomer Home Page* on page 226.

• Change the home page link on the Navigation frame to jump to your home page. For instructions, see *Customizing Navigation Links* on page 228.

If you do not already have a home page, you can use the sample site provided with eCustomer to create one. For instructions, see *Customizing the Sample eCustomer Home Page* on page 226.

Adding your company logo and name

The company name and logo appear in the Navigation frame of eCustomer in Common/navigation.asp.

In the Navigation frame, the company name is derived automatically from the Sage ERP MAS 500 database. Make sure that the company name is how you want it to appear on the Web site. For instructions on entering company information, refer to the *Installation and System Configuration* guide.

The background color and font for the company name and buttons are determined by the stylesheet navigation.css. You can change the background color or use a graphic. Make sure that the text color contrasts with the background so that it is visible.

The company logo is provided by logo.jpg. Replace this file with one containing your company's logo, but keep the new graphic the same size and use the same filename. If you change the size of the graphic, you might also need to change the dimensions of the frameset. If you use a different filename, change the references to the file in navigation.asp.

If you plan to modify the sample home page to use as your company's home page, you also need to modify the home page content frame, Home/samplehomeintroduction.htm. This document provides an introduction to your site. Revise it to describe your company and highlight the features of the site.

Adding contact information

The following pages have links to the webmaster or other contact you designate at your company:

- Home page menu frame (if used): Home\samplehomemenu.htm

- Help page: Help\help.htm

You might want to set up a generic mailbox to be used as a contact point at your company, such as webmaster@yourcompany.com, instead of a specific person. This way, you do not need to change the Web site if the contact person changes. Create an e-mail link to the address you choose.

Changing to company colors and text formats

The stylesheets contain the color and text format settings. You might want to change these to match the colors and formats used by your company.

Modify the Main.css stylesheet first. This stylesheet contains the basic formats that apply to all pages. Then, look at the Web site as a whole and see what changes need to be applied to the stylesheets of individual pages.

Note the following in making decisions on colors and text formats:

- To change fonts, consider using the standard Windows Web fonts, such as Verdana, Arial, and Times. Provide alternate font choices if the user does not have the font of your choice available.

- Test the colors at different color depths. If the user is running the system at a low number of colors, such as 256, there might be palette collisions that affect the appearance of your site.

Linking to your production database

When you are ready to go live with the Web site, connect the site to your production Internet application database. Run icConn.udl in the Setup folder to change the connection. For instructions, see *Changing the Link to the Database* on page 193. Make sure that you set up a logon that has access to the SQL Server and database.

Customizing the Sample eCustomer Home Page

Introduction　　The section applies only to eCustomer.

The sample eCustomer home page can be modified so that you can use it as the home page for your Web site. This section explains changes that you can make to the content and operation of the site.

How the home page opens　　The default sample home page for the eCustomer Web site is default.asp. This page is designed to check for proper configuration and the correct version of the browser as it opens:

- If the Web site is not configured for a company on the Sage ERP MAS 500 databases, it opens SiteNotConfigured.htm to indicate the error.

- If the Web site does not open in the correct browser or version, it opens BrowserError.htm to indicate the error.

- If the Web site is configured correctly, it opens Home.asp that contains the sample home page.

Changing links on the home page menu　　The home page menu frame, Home\samplehomemenu.htm, can be used to provide links to pages you add to your site, such as pages for support, company news, and other information. By default, the text is not linked. Revise the text, add links to the pages you need, and remove the sample text and table cells you do not need. Reserve one link as an e-mail link to your contact as shown in *Adding contact information* on page 225.

The frame where the home page menu appears is designed to scroll, so you can add a long list of links. You might consider creating an expanding and contracting table of contents to manage the contents and enable them to fit on the screen. There are a number of sample scripts available on the Internet for producing this type of table of contents.

Changing the default home page

To change IIS to call a different home page, perform the following:

1   Select Windows Start menu > All Programs > Administrative Tools > Internet Information Services.

2   In the Tree pane, expand the server name, and then Default Web Site. Look for the name you assigned to the eCustomer Web site.

3   Right-click the eCustomer Web site name and select Properties. In the Properties window that appears, click Documents.

4   In the Documents tab, make sure that Enabled Default Document is checked. Add the new home page you want. In the Document tab, there are several alternate pages that can be open if the default page is not available. The pages are opened in the order they are listed on the tab. Make sure the pages are in the order you want.

Adding Other Pages

Suggestions for adding pages

When adding pages to the Web site, make sure they are consistent with the overall appearance of the Web site. The following are suggestions on how to design new pages for the site.

•   Use Main.css as your stylesheet. If you need to create styles specific to the page, use one of the other page-specific stylesheets that apply or create a new one. Avoid using inline styles.

•   If you are creating a page off the home page, have the page hosted in the main frame of Home\samplehome.htm. This maintains the design of the page and keeps the menu and navigation frames open at all times.

- Add links to new pages to the home page menu frame. Avoid adding links to the Navigation frame because it is designed to hold only a few key links. If you need to change the settings of the navigation frame, see *Customizing Navigation Links*.

Customizing Navigation Links

Introduction   The eCustomer and eSalesforce Web site pages have navigation links at the top. Both sites have a link to the help file. eCustomer has two other links, one to the logon page and another to the home page.

You can customize the links for either site, but the method of changing the links is different. Follow the instructions that apply to the Web site.

Restrictions on customizing the navigation frame   Because of the limited amount of space, restrict the number of links on the navigation frame; however, you can add more buttons as needed.

Changing the links in eSalesforce   eSalesforce has only one navigation link to Help. The link is located in the top banner file, Common\TopBanner.asp. It is a standard HTML link within a table:

<td class="Help">

Help

</td>

You can change the link to another file and add more links within the same table cell.

Changing the links in eCustomer   The navigation frame has links and text that are drawn from the Internet application database. This enables you to create a single Web site for different companies and provide different common links for different companies. For example, you might have a different home page for each company.

To change the text and links that appear in the navigation frame, modify the ticIappNavBarBtn table in the Internet application database. Use SQL Server Enterprise Manager or other SQL Server database tool.

> **Important:** At least one of the links must be to the logon page. You can either use the Login.asp, which contains the navigation frame in a frame, or LoginDirect.asp, which does not. If you link to Login.asp, see this section about linking to this page.

The following lists the columns in the table:

Column name	Description	What to enter
IappNavBarBtnKey	Key field that identifies the link.	A unique number for each link.
BtnNo	The order of the links in the navigation frame from left to right.	A unique number for each link. Links are listed in order from lowest to highest.
BtnText	Text that appears on the navigation frame to identify buttons.	Name of the link.
CompanyID	ID of the company that uses the link. Navigator links are company-specific.	Company ID.

Column name	Description	What to enter
Hyperlink	Address of the page opened by the link.	Correct file name and path. Relative paths are recommended, such as "Home/Home.hlp."
Target	Where the page will open, which can be a frame in the same window, or a separate window.	A frame in the active frameset or an HTML code to indicate how the page opens. For example, SageMain opens in the "SageMain" frame, or "_window" opens the page in a separate window.
ToolTipText	Text that appears when the mouse hovers over the link.	Add brief, but descriptive text. For example, enter "Log in to place orders" for the Login window.
UseCurrWindow	Whether the page is opened in the current window.	0: No 1: Yes
Visible	Whether the link is visible on the page.	0: No 1: Yes

Customizing Help

Forms of user assistance

The eCustomer and eSalesforce Web sites provide the following forms of user assistance:

- Help pages that explain how the Web site works.

- Tooltips that appear when you leave the mouse pointer over a button or certain links for a few seconds.

You can change any of the provided online user assistance or add more help pages. Before customizing help, you should be aware of principles of designing help for Web sites.

Customizing the help page

The file help.htm in the Help folder contains the help for the Web site. You can customize the help to add your contact information.

To create a new help file with a name other than help.htm, change the destination of the Help link in the Navigation frame. For more information, see *Customizing Navigation Links* on page 228.

Customizing tooltips

You can add tooltips to a button, link, or input field. The text appears when the user leaves the mouse pointer over the button or link for a moment.

To add a tooltip, type the text in the Title field in the Properties sheet for the button or link. You can also edit the code defining the button as shown in this example. The title code is in italics:

> <button id="btnRestoreCart" class="clsLoudButton" *title="Restores the last saved version of the cart. This discards any changes you made since the last time you saved."* language="javascript" onclick="return btnRestoreCart_onclick()" STYLE="cursor:hand">

Adding tooltips to the links on the eCustomer navigation frame is done differently. For more information, see *Customizing Navigation Links* on page 228.

Chapter 10

Web Part Development 11

The Business Insights Dashboard is composed of Web parts that can be customized. This chapter provides information about how to create Web parts, modify their appearance, and serves as a guide to creating additional Web parts.

The Business Insights Dashboard Web parts can be customized using Microsoft Visual Studio 2010.

In this chapter

Introduction to Sage Web Parts

Introduction Sage Web Parts were built using ASP.NET technologies as Web user controls. They were designed as a replacement for and share the same data structure as the Sage Business Insights Dashboard. This chapter is intended to show how these Web parts were created and to serve as a guide in creating additional Web parts for the Business Insights Dashboard.

During the course of this chapter, an example Web part will be created that shows the daily sales order total for the top five salespersons. It will use a data-bound grid to display the information.

Creating Web parts from user controls There are advantages and disadvantages to creating Web parts as user controls as opposed to compiled assemblies. The advantages are a user-friendly design surface, control property pages, and available wizards. Creating Web parts using this technology allows easy access to global objects on the Web site such as connection and default company information. You also have the ability to use some of the Sage control components used on this Web site.

The main disadvantage is that the code must be in Visual Basic. The language selection is a site-wide option. Also, Web parts built using user controls are not as easily portable as assemblies.

Compiled Web parts that load user controls The Web parts created for the Business Insights Dashboard use Web part classes that inherit from the Web Part object and load user controls at runtime. Compiling these classes to a .NET .dll file allows the Web part code to be language independent from the Web site. This also provides a design surface for the user interface (UI) of the Web part as well as allowing for simple deployment.

Setting up the development environment

Sage Web parts were developed in Visual Studio 2008 with no special libraries or templates added. SQL Server 2005 or 2008 are required for the back end with IIS. You must have Sage ERP MAS 500 version 7.30 or higher and the Business Insights Dashboard installed along with the appropriate security setup.

Setting up the Project

Use the following steps to set up the Web part project.

1   Open Microsoft Visual Studio 2010.

2   Select File menu > Open Web Site.

3   At the Web site location field, type the URL of the Business Insights Dashboard. This will add all of the files from the Web site to your project.
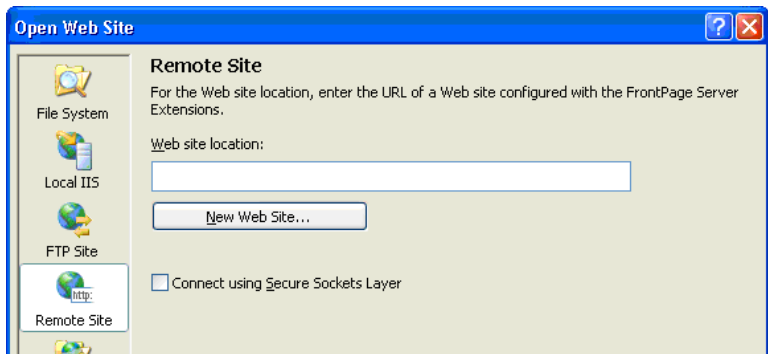
Global objects   There are two global objects in the Business Insights Dashboard that are important to discuss before creating a Web part. First, the connection used to connect to the Sage ERP MAS 500 database is called "MAS500App." This connection string is stored at the application level in the Web.config file and can be administered either through the IIS Management Console or by editing the Web.config file manually.

1   In the IIS Management Console, right-click the Business Insights Dashboard folder and select Properties to modify the connection string.

2   Click the Edit Configuration button on the ASP.NET tab to view configuration information.

The connection can be accessed in code by using the following reference:

```
Accounting.Web.Framework.Session.OpenConnection
```

The second global object that you need to reference is the default Sage ERP MAS 500 company ID. This value is set on the Dashboard master page and is stored at the application level in the Profile object in the Web.Config file. This value can be accessed in code with the following reference:

```
HttpContext.Current.Profile.Item("CompanyID").
ToString.Trim
```

Creating the Web Part User Control

Use the following steps to create a Web part user control.

1   In Visual Studio, click the Explorer button in the WebPart Custom Gallery folder.

2   Click a folder and select Add New Item.

3   Type a name for the new Web User Control (for example, DailySalesTotal.ascx). Clear the Place code in separate file check box.
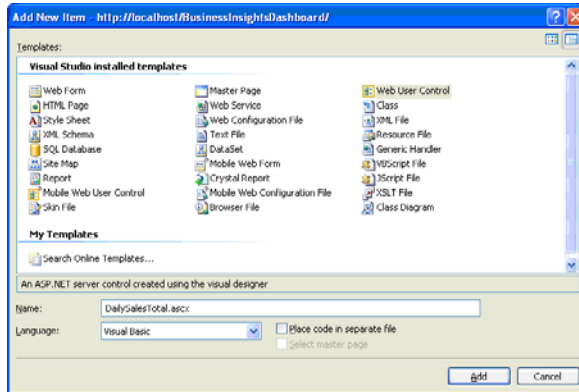
Adding controls to the ASCX file   The control will display in the development window with a blank design surface.

1   Add three panel controls from the standard toolbox to the User Control.

2   Set the ID property of the top control to pnlSelector, the middle to pnlContent, and the bottom to pnlErrorMsg.

3   Drag and drop a GridView control from the data toolbox on to the design surface in the middle panel.

4   Set the ID property of the GridView to gvSalesTotals.

5 Use the Property Manager for the GridView control to edit the columns and add formatting.

GridView Tasks		
Auto Format...		
Choose Data Source:	(None)	˅
Edit Columns...		
Add New Column		
Edit Templates		
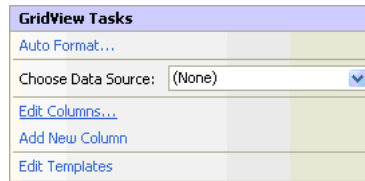
Click Edit Columns to add two BoundFields and configure them as follows:

First BoundField

Property	Value
HeaderText	Salesperson
DataField	Salesperson
HTMLEncode	False

Second BoundField

Property	Value
HeaderText	Sales Total
DataField	SOTotal
HTMLEncode	False
DataFormatString	{0:$###,###,##0}
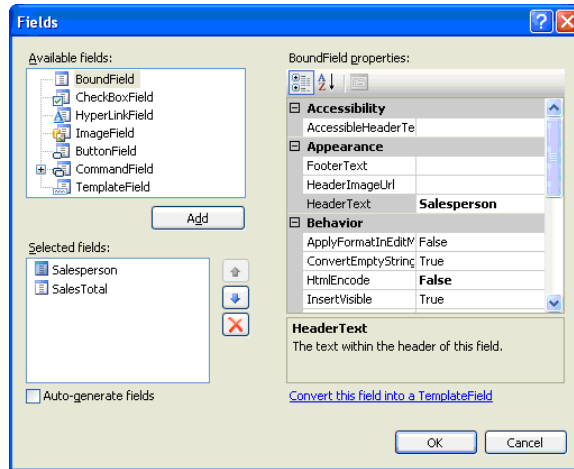
6 Clear the Auto-generate fields check box.

7 Select the .ascx file and click the Source button. Add `SkinID="WebPart"` inside the `<asp:GridView>` tag. This adds the style skin to match the Sage Web Parts.

8 For the grid cells to match the Web Parts, add `<ItemStyle CssClass="DefaultCell" />` between the `<asp:BoundField>` tag and the `</asp:BoundField>` end tag.

9 For the first BoundField, set the CssClass cell equal to DefaultCell1 and all the rest of the cells equal to DefaultCell. This sets the borders around the cells to match the existing Web parts.

10 Add a label control from the standard toolbox inside the pnlErrorMsg control and set the ID property to lblErrorMessage.

Adding the Company Selector control to the ASCX file

Use the following procedure to add Company Selector controls to the ASCX file.

1   Add a reference to the BIControls.dll to the top of the ascx file as follows:

```
<%@ Register Assembly= "Accounting.
Web.Framework. BIControls"
Namespace="Accounting.Web.Framework"
TagPrefix="cc1" %>
```

2   Add the Company Selector control to pnlSelector.

3   Add the following line between the beginning and ending tag of the Selector panel:

```
<cc1:CompanySelector ID="CompanySelector1"
runat="server" />
```

4   Save the ASCX file.

Note: Because the Company Selector control is late bound using the load control method, just as our Web part, a "can't render" error occurs in the pnlSelector control when in design mode for the DailySalesTotals.ascx file. This error can be ignored as the designer does not support this type of late binding.

Editing the Company Selector control to the ASCX file

In all the panel controls, verify there are no height and width properties specified. In addition to the SkinID for the grid, you can set the width of the grid cells to fit your specific data. Editing the ASCX file and adding an ItemStyle and HeaderStyle tag to the bound columns allow you to set the attributes of the grid control. The following is the code for the Daily Sales Totals grid:

```
<asp:BoundField DataField="Salesperson"
HeaderText="Salesperson" HtmlEncode="False" >

<HeaderStyle HorizontalAlign="Left" Wrap="false"
VerticalAlign="Bottom"></HeaderStyle >

<ItemStyle HorizontalAlign="Left" Wrap="False"
Width="80px" CssClass="DefaultCell1" ></ItemStyle>

</asp:BoundField >
```

```
<asp:BoundField DataField="SOTotal"
HeaderText="SalesTotal" HtmlEncode="False" >
```

```
<HeaderStyle HorizontalAlign="Left" Wrap="false"
VerticalAlign="Bottom"></HeaderStyle >
```

```
<ItemStyle HorizontalAlign="Left" Wrap="False"
Width="80px" CssClass="DefaultCell" ></ItemStyle>
```

```
</asp:BoundField>
```

Set the visible properties of all of the panel controls as follows:

```
pnlSelector Visible="true"
pnlContentVisible="true"
pnlErrorMsg Visible="false"
```

Creating the Web Control Project

Layout

Use the following steps to create the Web control project.

1 Open Visual Studio and create a new project.

2 Select the Class Library template.
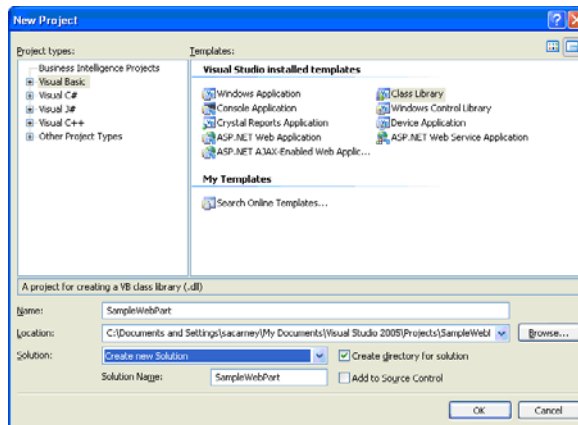
3 In the Solution Explorer, rename the class file Class1.vb to DailySalesTotal.vb.

4 Save the project and close Visual Studio. This project can now be added to the Business Insights Dashboard Web site project.

5 Select File menu > Add > Existing project. Navigate to the Sample Web Part project you just created.

6 Add the following .NET references to the Sample Web Part project:

```
System.Web
System.Data
```

7 Add the following Business Insights Framework references to the Sample Web Part project using the browse control:

```
Accounting.Web.Framework.dll
Accounting.Web.Framework.BIControls.dll
```

These framework dlls can be found in the Bin folder of the Business Insights Dashboard Web site.

8 Select the SampleWebPart.vb from the Solution Explorer. Edit the file and add the following import statements to the top of your class:

```
Imports System
Imports System.Web
Imports System.Web.UI
Imports System.Web.UI.WebControls
Imports System.Web.UI.WebControls.WebParts
Imports System.Data
Imports System.Data.SqlClient
Imports System.ComponentModel
Imports Accounting.Web.Framework
Imports System.Text
```

9 The class inherits from the WebPart class, so add the following to the class file:

```
Inherits
System.Web.UI.WebControls.WebParts.WebPart
```

Adding properties to the class

Use the following steps to add properties to the Web Part and override certain inherited properties from the Web Part class. Be sure to add a default value for each property.

1 Add two local private variables to hold the Property values:

```
Private _Title As String = "Daily Sales
Totals"
Private _CompanyID As String = ""
```

2 Add the CompanyID default constant:

```
Private Const DEFAULT_TEXT As String =
"[Default]"
```

3 Override the Title property:

```
<Personalizable(), DefaultValue("Daily
Sales Totals")> _
Public Overrides Property Title() As String

    Get

        Return _Title

    End Get

    Set(ByVal value As String)

        _Title = value

    End Set

End Property
```

4 Add The CompanyID property:

```
<Personalizable(),
DefaultValue(DEFAULT_TEXT)> _
Public Property CompanyID() As String
Get
Return _CompanyID
End Get
Set(ByVal value As String)
_CompanyID = value
End Set
End Property
```

**Building the
ASCX controls to
DailySalesTotal
class**

A reference must be made to all the controls on the ASCX
page in the class. The reference is performed in the Init event
that is inherited from the WebPart class. You must declare
the private variables in the declarations section of the class
for all the controls on the ASCX user control as well as the
User Control itself.

```
Private DailySalesUserControl As UserControl
```

```
Private WithEvents CompanySelector1 As
CompanySelector
```

```
Private pnlSelector As Panel
```

```
Private pnlContent As Panel
```

```
Private pnlErrorMsg As Panel
```

```
Private gvSalesTotals As GridView
```

```
Private lblErrorMessage As Label
```

To bind the controls, add the following code to the Init Event
in the DailySalesTotals class. Binding the User Control uses
the LoadControl command:

```
DailySalesUserControl =
DirectCast(Page.LoadControl("~/WebPart/
CustomGallery/DailySalesTotals.ascx"), UserControl)
```

```
DailySalesUserControl.ID = "DailySales"
```

```
        Me.Controls.Add(DailySalesUserControl)
```

After the control is loaded, the variables can be set for the
controls using the FindControl Method of each parent
control. You can set the variable for the panel controls as
follows:

```
pnlSelector =
DirectCast(DailySalesUserControl.FindControl
("pnlSelector"), Panel)
```

```
pnlContent =
DirectCast(DailySalesUserControl.FindControl
("pnlContent"), Panel)
```

```
pnlErrorMsg =
DirectCast(DailySalesUserControl.FindControl
("pnlErrorMsg"), Panel)
```

The child controls can now be set using the FindControl method of the panel controls as follows:

```
CompanySelector1 =
DirectCast(pnlSelector.FindControl
("CompanySelector1"), CompanySelector)
```

```
gvSalesTotals =
DirectCast(pnlContent.FindControl("gvSalesTotals"),
GridView)
```

```
        lblErrorMessage =
DirectCast(pnlErrorMsg.FindControl
("lblErrorMessage"), Label)
```

These calls should be surrounded by a Try/Catch block and some error handling should be added. Refer to the following Catch portion of the call. Because the controls are not rendered at this point, you must add a label control to display the error message.

```
        Catch ex As Exception

            Dim errLabel As Label = New Label

            errLabel.ID = "DailySalesTotalError"

            errLabel.Text = "DailySalesTotal_Init:"
& ex.Message
Me.Controls.Add(errLabel)

End Try
```

Populating the grid control and rendering the Web part

The bulk of the work in the Web part is performed in the PreRender event that is inherited from the WebPart class.

Because you are using the Sage ERP MAS 500 common routine for error handling, you must first set the control's visible properties before rendering, in case the last rendering of the Web part returns no data or has an error. You must create a method to reset the controls to the correct state and call it at the beginning of the PreRender event. Create the method:

```
Private Sub ResetControls()

        lblErrorMessage.Text = ""

        pnlErrorMsg.Visible = False

        pnlContent.Visible = True

        pnlSelector.Visible = True

End Sub
```

Next, make the call at the beginning of the PreRender event:

```
    ResetControls()
```

This is also where you must link any Help files. In the following example, the DailySalesHelp.htm is created to demonstrate the linking method, and added to the Help folder in the Business Insights Dashboard Web site. The following is the code to link the file:

```
        Me.HelpMode = WebPartHelpMode.Modeless

        Me.HelpUrl = "~/Help/DailySalesHelp.htm"
```

Using the Company Selector control

The Sage ERP MAS 500 Web parts also have a control to select a company other than the default company set in the portal master page. There are several steps that must be taken to implement this control. You have already added the control to your Web part .ascx file and a personalized property to store the CompanyID value. This saves the value for the user between sessions. You can also encapsulate the code in a Try/Catch block and use the Common Error routine to display any error messages that may occur.

You must first instantiate the Web part common class to use the Show Error method. Add the code to the declarations section of your class to instantiate the WebPartCommon class:

```
Private wpc As New WebPartCommon
```

Add the following code to the PreRender event:

```
Dim userProfileCompanyID As String = ""

Try

' get the default company from the Profile object

userProfileCompanyID =
HttpContext.Current.Profile.Item("CompanyID").ToStr
ing. Trim

Catch ex As Exception

lblErrorMessage.Text = wpc.ShowError(ex.Message,
DailySalesUserControl)

End Try


' variable to hold CompanyID that is used

        ' _CompanyID could be [Default]

         Dim UseCompanyID As String

      ' if there is no value for _CompanyID use the
default company from Profile

        If _CompanyID.Trim.Length = 0 Or _CompanyID
= DEFAULT_TEXT Then

            If userProfileCompanyID.Trim.Length = 0
Then 'if no default set then show error message

                lblErrorMessage.Text =
wpc.ShowError(wpc.NoDfltCmpnyMsg,
DailySalesUserControl)

                Exit Sub

            End If
```

```
                ' set the CompanyID property to save

                _CompanyID = DEFAULT_TEXT

                ' use the default company

               UseCompanyID = userProfileCompanyID.Trim

          Else ' if there is a saved value, use it

                UseCompanyID = _CompanyID

          End If

Try ' set the company selector to match the
companyID property

                CompanySelector1.CompanyID = _CompanyID

          Catch ex As Exception

                lblErrorMessage.Text =
wpc.ShowError(ex.Message, DailySalesUserControl)

                Exit Sub

          End Try
```

The wpc.ShowError method clears all the controls on the Web part and displays a message that it is passed in a label.

Lastly, the ValueChanged event must be handled by the Web part to change the CompanyID value when the selector's value changes. Add the following code to handle the event from the selector:

```
Protected Sub CompanySelector1_ValueChanged()
Handles CompanySelector1.ValueChanged

_CompanyID = CompanySelector1.CompanyID

End Sub
```

The Company Selector is now ready to be used.

Creating the SQL command object and binding the grid

A parameterized SQL statement is used for data retrieval with the CompanyID as the parameter. Normally, you can use a parameter for the date of the sales orders. For demonstration purposes, you can hard-code a date compatible with data in the SOA demo company. Use the following code for setting up the SQL Command object:

```
Dim SqlSelect As String

Dim _dtSales As New System.Data.DataTable

' set up the profit grid

Try

Dim str As New StringBuilder(277)

str.AppendLine("SELECT S.SperID[Salesperson],
SUM(SO.TranAmt)[SOTotal] FROM tsoSalesOrder SO")

str.AppendLine("INNER JOIN tarSalesperson S")

str.AppendLine("ON SO.PrimarySperKey = S.SperKey")

str.AppendLine("GROUP BY S.SperID, SO.TranDate,
SO.CompanyID")

str.AppendLine("HAVING SO.TranDate = '2008-06-05'")

str.AppendLine("AND SO.CompanyID = @CompanyID")

str.AppendLine("ORDER BY SUM(SO.TranAmt) DESC")


SqlSelect = str.ToString


Dim sqlCmd As SqlCommand = New SqlCommand


With sqlCmd
.CommandType = CommandType.Text

.CommandText = SqlSelect

.CommandTimeout =
Accounting.Web.Framework.Session.QueryTimeout
```

```
                    .Parameters.AddWithValue("@CompanyID",
UseCompanyID)

Dim con As SqlConnection =
Accounting.Web.Framework.Session.OpenConnection

.Connection = con

End With


Dim _daSales As SqlDataAdapter = New
SqlDataAdapter(sqlCmd)

_daSales.Fill(_dtSales)


Catch ex As Exception

lblErrorMessage.Text = wpc.ShowError(ex.Message,
DailySalesUserControl)

Exit Sub

End Try

' if no rows exist then clear and show no data
message

If _dtSales.Rows.Count = 0 Then

lblErrorMessage.Text = wpc.ShowError(wpc.NoDataMsg,
DailySalesUserControl)

Exit Sub

End If

gvSalesTotals.DataSource = _dtSales
gvSalesTotals.DataBind()
```

Upgrading Web Parts Created in Sage ERP MAS 500 Version 7.05

This section provides information about deploying Web parts, such as compiling Web parts, using selectors other than the Company Selector, and upgrading user-created Web parts from the Sage ERP MAS 500 version 7.05 Business Insights Dashboard.

Compiling the Web part

The Daily Sales Totals Web part is now be ready to be compiled.

1 Select Build SampleWebPart from the Build menu.

2 After the .dll is built, copy it to the Bin folder of the Web site.

3 The ASCX file should be in the WebParts CustomGallery folder and the Help file should be placed in the Help folder of the Web site. By placing the .dll in the bin folder, your Web part should now appear in the Custom Content 2 section when Add Content is selected.

Using other selectors

The other selectors available for the Sage ERP MAS 500 Web parts are for warehouse, budget type, and purchase product line. The code for these selectors is very similar to the Company Selector and is implemented in much the same manner. If you are using more than one selector, verify that the company selector is used first, because other selectors are usually dependent on the CompanyID being set. Refer to the following code for implementing the Warehouse Selector in the Top Items Web part. In the PreRender event of the Web part, this code follows the company selector code.

```
Try

    WhseSelector1.Initialize(UseCompanyID)

Catch ex As Exception
```

```
                            lblErrorMessage.Text =
        wpc.ShowError(ex.Message, DailySalesUserControl)

                Exit Sub

        End Try

        If _Warehouse.Trim.Length = 0 Then

                _Warehouse = WhseSelector1.WhseID.Trim

        Else

                WhseSelector1.WhseID = _Warehouse.Trim

        End If

        Dim WhseKey As Int32

        Try

          WhseKey = wpc.GetWhseKey(_Warehouse.Trim,
        UseCompanyID)

        Catch ex As Exception

                lblErrorMessage.Text =
        wpc.ShowError(ex.Message, DailySalesUserControl)

                Exit Sub

        End Try
```

The following property is used to store the warehouse value at runtime:

```
  Private _Warehouse As String = ""

   <Personalizable()> _

  Public Property Warehouse() As String

      Get

          Return _Warehouse

      End Get

      Set(ByVal value As String)

          _Warehouse = value

      End Set
```

```
End Property
```

The following event handler is used for the warehouse selector control:

```
Protected Sub WhseSelector1_ValueChanged() Handles
WhseSelector1.ValueChanged

      _Warehouse = WhseSelector1.WhseID.Trim

   End Sub
```

The event handler for the company selector control must be changed to the following to set the warehouse to "All" when the company is changed:

```
   Protected Sub CompanySelector1_ValueChanged()
Handles CompanySelector1.ValueChanged

      _CompanyID = CompanySelector1.CompanyID

      _Warehouse = "All"

      WhseSelector1.WhseID = "All"

   End Sub
```

This is the general methodology used for filtering data sets in DataViews and passing user values into GetData and Fill methods in data adapters. This same methodology can be used to create any necessary filters or user selected parameters.

Upgrading user-created Web parts from Business Insights Dashboard version 7.05

The custom user control Web parts created for Sage ERP MAS 500 version 7.05 Business Insights Dashboard are still supported in this version with only minor changes to the ASCX files.

The path in the Web site is changed from BusinessInsightsPortal to BusinessInsightsDashboard. All of the files you have created in the version 7.05 Business Insights Dashboard must be moved to the same folder in the current Dashboard. Be sure to include the CustomGallery1.ascx file that contains the list of your Web parts.

Because the common controls for the Sage ERP MAS 500 Web parts are now contained in a .dll, the reference to the controls must be changed in the user controls .ascx file. Remove any references to Sage ERP MAS 500 common controls, for example:

```
<%@ Register Src="../CompanySelector.ascx"
TagName="CompanySelector" TagPrefix="uc1" %>
```

Add a reference to the Common Controls dll:

```
<%@ Register
Assembly="Accounting.Web.Framework.BIControls"
Namespace="Accounting.Web.Framework"
TagPrefix="uc1" %>
```

This reference only needs to be added once for all the selector controls. Your selector controls now should use the same prefix that is specified in the register statement. If your Web parts use the common error messaging routine in WebPartCommon, make sure all controls are contained inside Panel controls as described in the sample Web part instructions above. The Web parts should now be compatible with the Business Insights Dashboard.

Other Techniques and Methods

The sample Web part created for this document serves as a guide to creating compatible Web parts for the Business Insights Dashboard. You can find examples of topics not covered in this document, including various filtering methods, database access, and working with data sets and data views, throughout the Sage ERP MAS 500 Web parts.

You can find additional information about the development of ASP.NET compatible Web parts at the following Web sites by typing the keywords "Web parts":

http://www.asp.net

http://www.theserverside.net

http://www.codeproject.com

The MSDN Library also contains useful information. At the following Web site, select the .NET Development menu > ASP.NET > Building ASP.NET Applications > Web Parts.

http://msdn2.microsoft.com/en-us/library/

Source Code Listings for Sample Web Part

Source code for
DailySalesTotal.vb

The following is the source code for the DailySalesTotal.vb class.

```
Imports System

Imports System.Web

Imports System.Web.UI

Imports System.Web.UI.WebControls

Imports System.Web.UI.WebControls.WebParts

Imports System.Data

Imports System.Data.SqlClient

Imports System.ComponentModel

Imports System.Text

Imports Accounting.Web.Framework

Public Class DailySalesTotal

    Inherits WebPart

Private _Title As String = "Daily Sales Totals"

    Private _CompanyID As String = ""

Private Const DEFAULT_TEXT As String = "[Default]"

Private DailySalesUserControl As UserControl

    Private WithEvents CompanySelector1 As
CompanySelector

    Private pnlSelector As Panel

    Private pnlContent As Panel

    Private pnlErrorMsg As Panel

    Private gvSalesTotals As GridView

    Private lblErrorMessage As Label

    Private wpc As New WebPartCommon
```

```vbnet
    <Personalizable(), DefaultValue("Daily Sales
Totals")> Public Overrides Property Title() As
String

        Get

            Return _Title

        End Get

        Set(ByVal value As String)

            _Title = value

        End Set

    End Property

    <Personalizable(), DefaultValue(DEFAULT_TEXT)> _

    Public Property CompanyID() As String

        Get

            Return _CompanyID

        End Get

        Set(ByVal value As String)

            _CompanyID = value

        End Set

    End Property

    Private Sub DailySalesTotal_Init(ByVal sender As
Object, ByVal e As System.EventArgs) Handles Me.Init

        Try

            ' call the load control method to load
the Daily Sales User Control

            DailySalesUserControl =
DirectCast(Page.LoadControl("~/WebPart/
CustomGallery/DailySalesTotal.ascx"), UserControl)

            DailySalesUserControl.ID = "DailySales"

            Me.Controls.Add(DailySalesUserControl)
```

```
                ' set the control variables for the controls
                contained in the user control

                        pnlSelector =
                DirectCast(DailySalesUserControl.FindControl
                ("pnlSelector"), Panel)

                        pnlContent =
                DirectCast(DailySalesUserControl.FindControl
                ("pnlContent"), Panel)

                        pnlErrorMsg =
                DirectCast(DailySalesUserControl.FindControl
                ("pnlErrorMsg"), Panel)

                        CompanySelector1 =
                DirectCast(pnlSelector.FindControl
                ("CompanySelector1"), CompanySelector)

                        gvSalesTotals =
                DirectCast(pnlContent.FindControl("gvSalesTotals"),
                GridView)

                        lblErrorMessage =
                DirectCast(pnlErrorMsg.FindControl
                ("lblErrorMessage"), Label)


                Catch ex As Exception

                        ' display the error message if necessary

                        Dim errLabel As Label = New Label

                        errLabel.ID = "DailySalesTotalError"

                        errLabel.Text = "DailySalesTotal_Init:"
                & ex.Message

                        Me.Controls.Add(errLabel)

        End Try

            End Sub

        Private Sub DailySalesTotal_PreRender(ByVal sender
        As Object, ByVal e As System.EventArgs) Handles
        Me.PreRender
```

```
' call to reset the visible state of all controls
        ResetControls()
        'set the help path
        Me.HelpMode = WebPartHelpMode.Modeless
        Me.HelpUrl = "~/Help/DailySalesHelp.htm"
        Dim userProfileCompanyID As String = ""
        Try
          ' get the default company from the Profile
object
            userProfileCompanyID =
HttpContext.Current.Profile.Item("CompanyID").
ToString.Trim
        Catch ex As Exception
            lblErrorMessage.Text =
wpc.ShowError(ex.Message, DailySalesUserControl)
        End Try
        ' variable to hold CompanyID that is used
        ' _CompanyID could be [Default]
        Dim UseCompanyID As String
      ' if there is no value for _CompanyID use the
default company from Profile
        If _CompanyID.Trim.Length = 0 Or _CompanyID
= DEFAULT_TEXT Then
            If userProfileCompanyID.Trim.Length = 0
Then 'if no default set then show error message
lblErrorMessage.Text =
wpc.ShowError(wpc.NoDfltCmpnyMsg,
DailySalesUserControl)
                Exit Sub
            End If
            ' set the CompanyID property to save
```

```
              _CompanyID = DEFAULT_TEXT

              ' use the default company

           UseCompanyID = userProfileCompanyID.Trim

        Else ' if there is a saved value, use it

           UseCompanyID = _CompanyID

        End If

        Try ' set the company selector to match the
companyID property

           CompanySelector1.CompanyID = _CompanyID

        Catch ex As Exception

           lblErrorMessage.Text =
wpc.ShowError(ex.Message, DailySalesUserControl)

           Exit Sub

        End Try

        ' set up the sales totals grid

        Dim SqlSelect As String

        Dim _dtSales As New System.Data.DataTable

        ' Sql statement for the grid data adapter

        Try

           Dim str As New StringBuilder(277)

           str.AppendLine("SELECT
S.SperID[Salesperson], SUM(SO.TranAmt)[SOTotal]
FROM tsoSalesOrder SO")

str.AppendLine("INNER JOIN tarSalesperson S")

           str.AppendLine("ON SO.PrimarySperKey =
S.SperKey")

           str.AppendLine("GROUP BY S.SperID,
SO.TranDate, SO.CompanyID")

           str.AppendLine("HAVING SO.TranDate =
'2008-06-05'")
```

```vb
                    str.AppendLine("AND SO.CompanyID =
@CompanyID")

                str.AppendLine("ORDER BY SUM(SO.TranAmt)
DESC")

                    SqlSelect = str.ToString

                Dim sqlCmd As SqlCommand = New SqlCommand

                    ' setup the sql Command object

                    With sqlCmd

                        .CommandType = CommandType.Text

                        .CommandText = SqlSelect

                        .CommandTimeout =
Accounting.Web.Framework.Session.QueryTimeout


.Parameters.AddWithValue("@CompanyID",
UseCompanyID)

                        Dim con As SqlConnection =
Accounting.Web.Framework.Session.OpenConnection

                        .Connection = con

                    End With

                    Dim _daSales As SqlDataAdapter = New
SqlDataAdapter(sqlCmd)

                    _daSales.Fill(_dtSales)

            Catch ex As Exception

                    lblErrorMessage.Text =
wpc.ShowError(ex.Message, DailySalesUserControl)

                    Exit Sub

            End Try

            ' if no rows exist then clear and show no
data message

            If _dtSales.Rows.Count = 0 Then
```

```
                    lblErrorMessage.Text =
            wpc.ShowError(wpc.NoDataMsg, DailySalesUserControl)

                    lblErrorMessage.Text =
            lblErrorMessage.Text & " For " & UseCompanyID

                    Exit Sub

                End If

                'bind the grid control

                gvSalesTotals.DataSource = _dtSales

                gvSalesTotals.DataBind()

        End Sub

            Private Sub ResetControls()

                lblErrorMessage.Text = ""

                pnlErrorMsg.Visible = False

                pnlContent.Visible = True

                pnlSelector.Visible = True

            End Sub

            Private Sub CompanySelector1_ValueChanged(ByVal
        sender As Object, ByVal e As System.EventArgs)
        Handles CompanySelector1.ValueChanged

                _CompanyID = CompanySelector1.CompanyID

            End Sub

        End Class
```

Source code for DailySalesTotal.aspx

The following is the source code for the DailySalesTotal.aspx class.

```
<%@ Control Language="VB" AutoEventWireup="false"
EnableViewState="true" %>

<%@ Register
Assembly="Accounting.Web.Framework.BIControls"
Namespace="Accounting.Web.Framework"
TagPrefix="cc1" %>
```

```
<asp:Panel ID="pnlSelector" runat="server"
Visible="true">

    <cc1:CompanySelector ID="CompanySelector1"
runat="server" />

</asp:Panel>

<asp:Panel ID="pnlContent" runat="server"
Visible="true">

    <asp:GridView ID="gvSalesTotals" runat="server"
SkinID="WebPart" AutoGenerateColumns="False">

        <Columns>

            <asp:BoundField DataField="Salesperson"
HeaderText="Salesperson" HtmlEncode="False" >

                <HeaderStyle HorizontalAlign="Left"
Wrap="false" VerticalAlign="Bottom"></HeaderStyle >

                <ItemStyle HorizontalAlign="Left"
Wrap="False" Width="80px" CssClass="DefaultCell1" >
</ItemStyle>

            </asp:BoundField >

            <asp:BoundField DataField="SOTotal"
HeaderText="SalesTotal" HtmlEncode="False" >

                <HeaderStyle HorizontalAlign="Left"
Wrap="false" VerticalAlign="Bottom"></HeaderStyle >

                <ItemStyle HorizontalAlign="Left"
Wrap="False" Width="80px" CssClass="DefaultCell"
></ItemStyle>
</asp:BoundField>

        </Columns>
</asp:GridView>
</asp:Panel>

<asp:Panel ID="pnlErrorMsg" runat="server"
Visible="false"> <asp:Label ID="lblErrorMessage"
runat="server" CssClass="ErrorLabel" Visible="true"
></asp:Label>

</asp:Panel>
```

Chapter 11

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