



## **ReadSoft Service Bus 2-4**

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# Installation Guide

July 2015 – ReadSoft AB

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# Contents

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<b>Overview</b> .....	<b>4</b>
<b>Requirements</b> .....	<b>5</b>
Software.....	5
Hardware .....	7
Development environment.....	7
<b>Supported systems</b> .....	<b>8</b>
<b>Installation</b> .....	<b>9</b>
Permissions .....	9
The RSB Installation.....	9
Creating the database manually .....	12
Connectors.....	16
RSB plug-ins .....	17
Bundled installations .....	18
<b>Upgrading</b> .....	<b>19</b>
ReadSoft Service Bus .....	19
Adapters .....	20
<b>Troubleshooting</b> .....	<b>21</b>
Database access .....	21
Images access when using DOCUMENTS .....	22
Install problems.....	22
Installing RSB on Windows Server 2008 .....	27
Uninstall problems .....	29
User not authenticated .....	29
HTTP Error 401.1 Unauthorized .....	29
Adapter compatibility .....	30
Invoices are not sent to RSB .....	31
Help .....	31
Contacting Support.....	31

# Overview

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ReadSoft Service Bus (RSB) is a universal data interface between source and target systems. It is a service-orientated, expandable component that facilitates easy integration and allows component reuse across multiple systems. You can use RSB to easily connect systems for document and data transport.

There are two types of installations for ReadSoft Service Bus which you can use to configure your system:

- **IIS hosted** – Lets you configure RSB using a web browser from anywhere you have access to the hosting server. Must be hosted by Internet information services (IIS). If you need to configure RSB from different computers, this is the best choice for you.
- **Standalone application** – A standard application for configuring RSB. Like the web application, you configure RSB using a web browser; however, the application runs locally and does not need to be hosted by IIS. The standard application can also be accessed from Windows' system tray, in addition to the Start menu and desktop icon. If you plan on configuring RSB from one computer and do not want to bother with IIS, this is the best choice for you.

Both installation types offer the same functionality and only differ in the way that they are hosted and accessed, so which one you choose is only a matter of personal preference.

# Requirements

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## Software

ReadSoft Service Bus supports the following operating systems:

- Windows Vista
- Windows 7 (32 and 64 bit)
- Windows Server 2008 (32 and 64 bit)
- Windows 2012
- Windows 8 (Note: Windows 8.1 has not been tested yet.)

ReadSoft Service Bus requires the following:

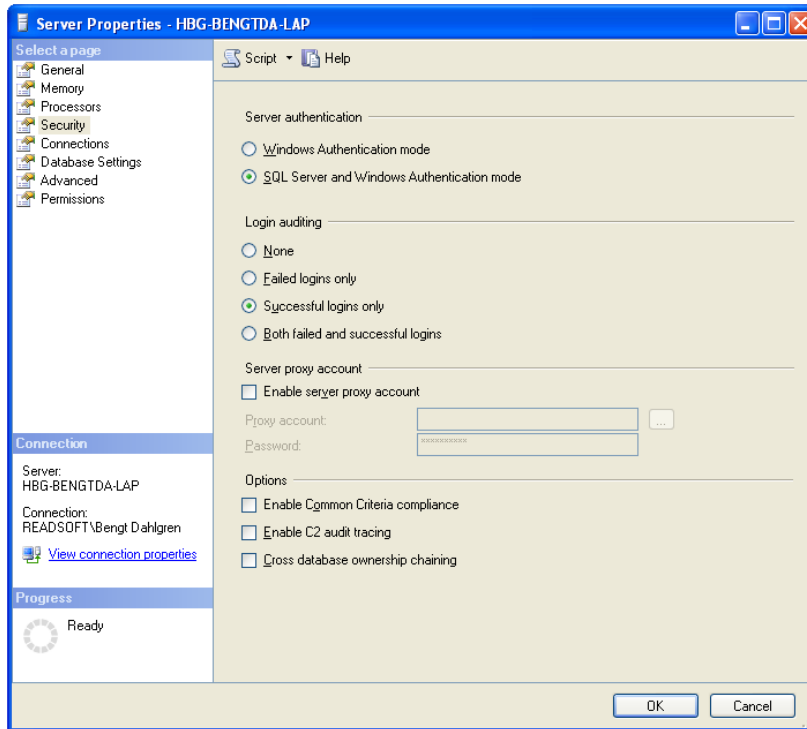
- **Internet information services 5.0** or newer (required only for the IIS hosted version of RSB).
- Microsoft **.NET Framework 4.5.1** (also required for computers that install the RSB plugin for INVOICES).

Microsoft **.NET Framework** installations and instructions can be found here:

<http://msdn.microsoft.com/en-us/netframework/aa569263>

- A web browser that supports **Microsoft Silverlight 4**. The latest version of Internet Explorer or Firefox is recommended.
- **Microsoft SQL Server 2005** or newer (one database).

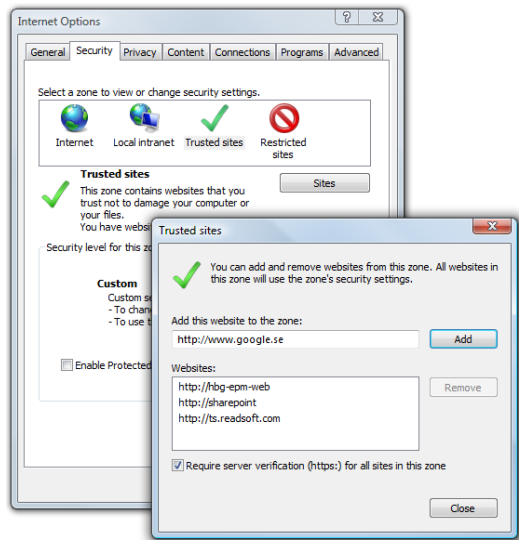
Note: Make sure the **Server authentication** setting on the **Security** settings on the server is set to **SQL Server and Windows Authentication mode**.



The installation creates a login on the server level (default name: `RSBLogin`), which is connected to a user (default name: `RSBUser`). `RSBUser` is used for the RSB database. You can specify the database name, login name and password during the installation.

RSB uses the default collation of the SQL server.

- **Ports.** RSB requires ports for internal communication. If you choose to host RSB on IIS, you must have port 80 open. RSB also uses port 9103 for the web service. You can change the **Web service** port from the **Settings** view using RSB Administration.
- **Adobe Flash Player** is required for the Help system. Flash Player is a free program available from Adobe.com (<http://get.adobe.com/flashplayer/>). You can install it manually, or you can add “\*.adobe.com” as a trusted site in the Windows **Internet Options Security** settings to install Flash Player on demand.



## Hardware

Computers running ReadSoft Service Bus should meet these minimum hardware requirements:

- 2.2 GHz processor or faster (AMD or Intel).
- 1 GB RAM.
- 1 GB disk space.

## Development environment

The SDK is developed with Microsoft Visual Studio 2010 and .NET 4. The templates and samples are developed with C#; however, you can use other .NET languages to develop new adapters.

The database used is Microsoft SQL Server 2008. If an embedded database is required, you can use SQL Server Express 2008. Note, however, that SQL Server 2005 is supported.

# Supported systems

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ReadSoft Service Bus can be customized to support a variety of systems (even products outside of ReadSoft). Some of the most common services which already exist are listed below.

ReadSoft Service Bus supports source systems such as:

- ReadSoft INVOICES 5-5 SP5 Hotfix 1 or later
- ReadSoft DOCUMENTS 6-4
- ReadSoft FORMS
- OB10
- Email input
- SFTP
- Generic file input

ReadSoft Service Bus supports target systems such as:

- Crossgate
- ReadSoft INVOICE COCKPIT SUITE 3
- ReadSoft INVOICEIT
- ReadSoft PROCESSIT
- ReadSoft PROCESS DIRECTOR
- Open Text
- SAP
- SharePoint



# Installation

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ReadSoft Service Bus can contain several installation parts, depending on your solution requirements. In most cases you install the ReadSoft Service Bus and two or more adapters. Some solutions also require a plug-in installation.

Always install RSB first, followed by any plug-ins or adapters that are required. Standard installation components are outlined here:

- The RSB Installation – The core program. Always required.
- Connectors – components that enable the services you require. For example, an INVOICES adapter enables INVOICES services and activities within RSB.
- RSB plug-ins – Optional plug-ins used to gather data from the source system.

## Permissions

ReadSoft Service Bus needs administrator permissions on Windows and SQL server. Some adapters have additional permission requirements.

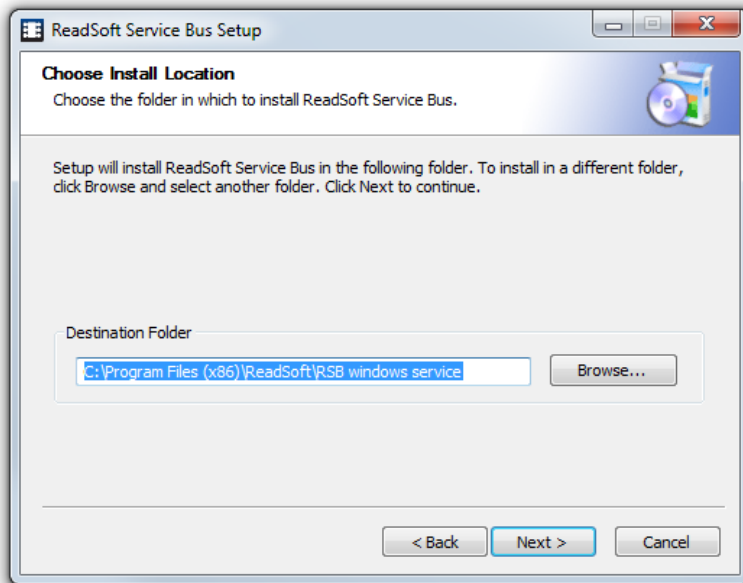
- Open Text adapter – Requires an SAP user with permission to call RFCs (Opt\_Archiv\_Doc\_Url\_Create and Opt\_Vim\_Start\_Doc\_Process\_Ext).
- SharePoint adapter – Requires a Windows user with permission to post in SharePoint.

## The RSB Installation

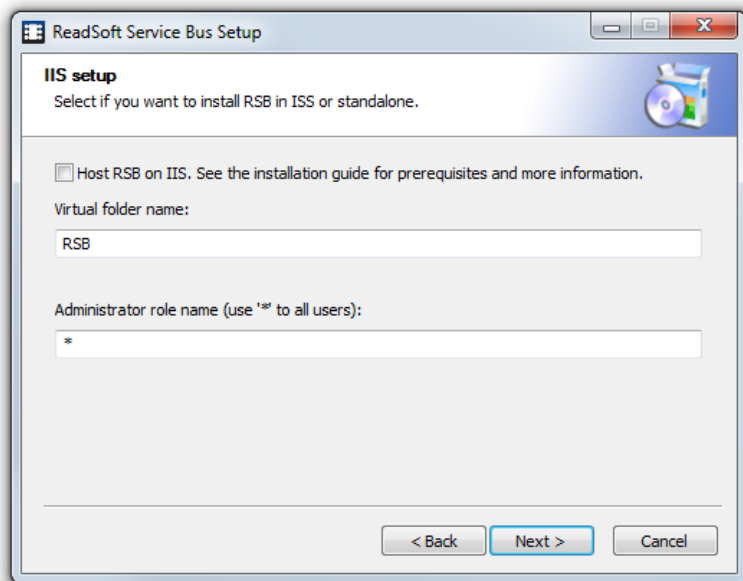
Note: Before installing ReadSoft Service Bus on Windows 2008, see *Installing RSB on Windows Server 2008*.

To install RSB:

1. Run the installation program (`RSB Standalone Install.exe`) located in the `RSB Installation` folder and follow the instructions in the wizard, clicking **Next** after each step below.
2. A check is performed to ensure adapter compatibility.
3. Select the components you want to install.
4. Specify the installation location.



5. If you want to access the RSB administration page as a web application which can be accessed on the network, select **Host RSB on IIS**.

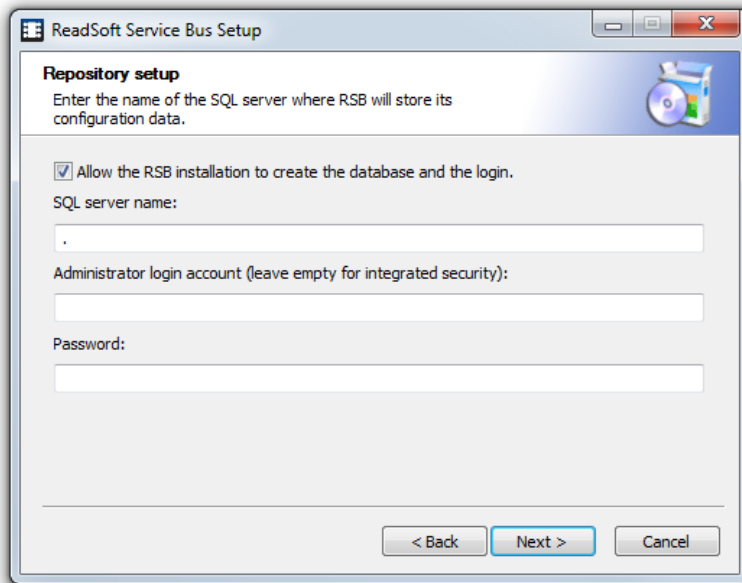


The **Virtual directory** specifies the folder where the RSB Administration web application is installed.

You can use **Administrator role name** to restrict access to RSB. If you specify a Windows group or user here, only that user (or members of the group) have administrator access to RSB. All other groups and users are restricted to read-only access of the **Tracking** view. The default setting (\*) gives all users administrator rights within RSB.

**Note:** You can change this setting later in the **System** settings on the RSB administration page.

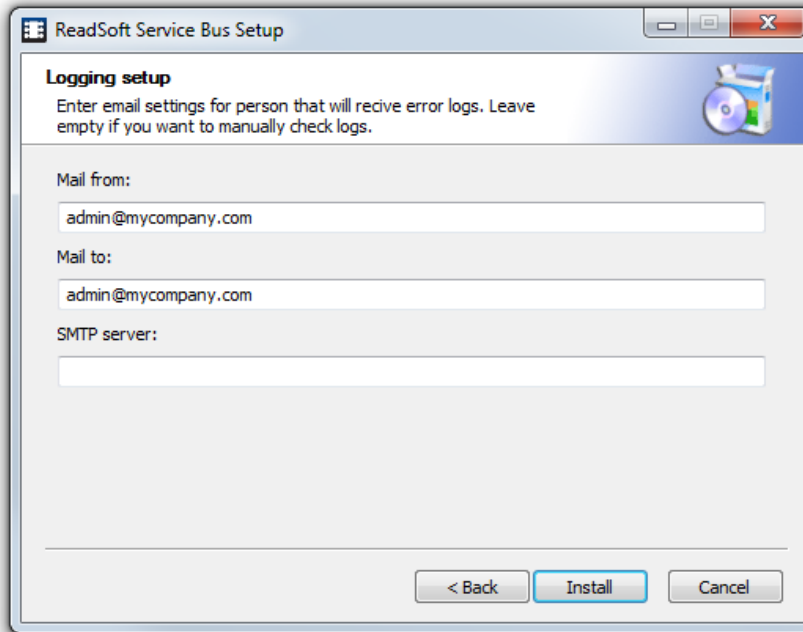
6. Specify the SQL server settings. You can leave the login information blank if you want to use Windows integrated security.



**Note:** The SQL server settings are only used to create the RSB database. Server settings are not saved by the installation.

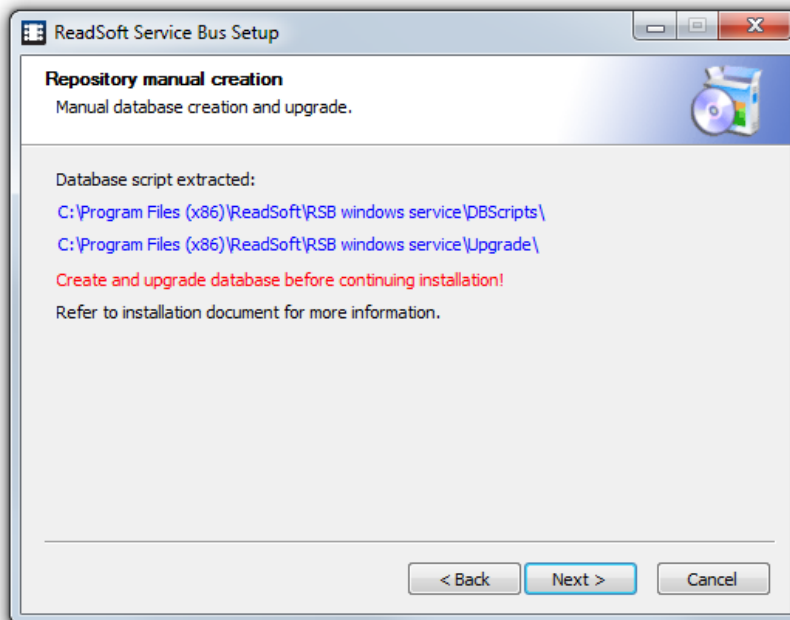
If you want to create the database manually, deselect **Allow the RSB installation to create the database and the login**.

7. Specify the **Database name**, **Login name** and **Login password**, or use the default settings. This login information is used by the RSB Windows service to access the database.
8. If you chose to create the database manually in step 6, links to the database scripts are provided by the installation at this time. See [Creating the database manually](#) for more information.
9. Specify the email settings for alert notifications. When these settings are specified, the recipient automatically receives email notifications about problems in the system. You can change these settings later using the administration application.



## Creating the database manually

If you chose to create the database manually in step 6, links to the database scripts are provided by the installation at this time. You must run both scripts. It does not matter which order you run the scripts.




After you run the database scripts located in the `DBScripts` folder, you must run the appropriate upgrade scripts, which are located in the `Upgrade` folder. Check the `DBVersion`


table to determine the database version, so you know which upgrade scripts you need to run. The database version is a four-digit number.


The file names for the upgrade scripts use the format YYYYMMDD\_XXXX-ZZZZ, where YYYYMMDD is the date, and XXXX-ZZZZ is the scope of the upgrade.


### Example

Assume your database version 0319, and the upgrade folder contains the following scripts:

 20101101\_0315-0319.sql

 20101101\_0319-0325.sql

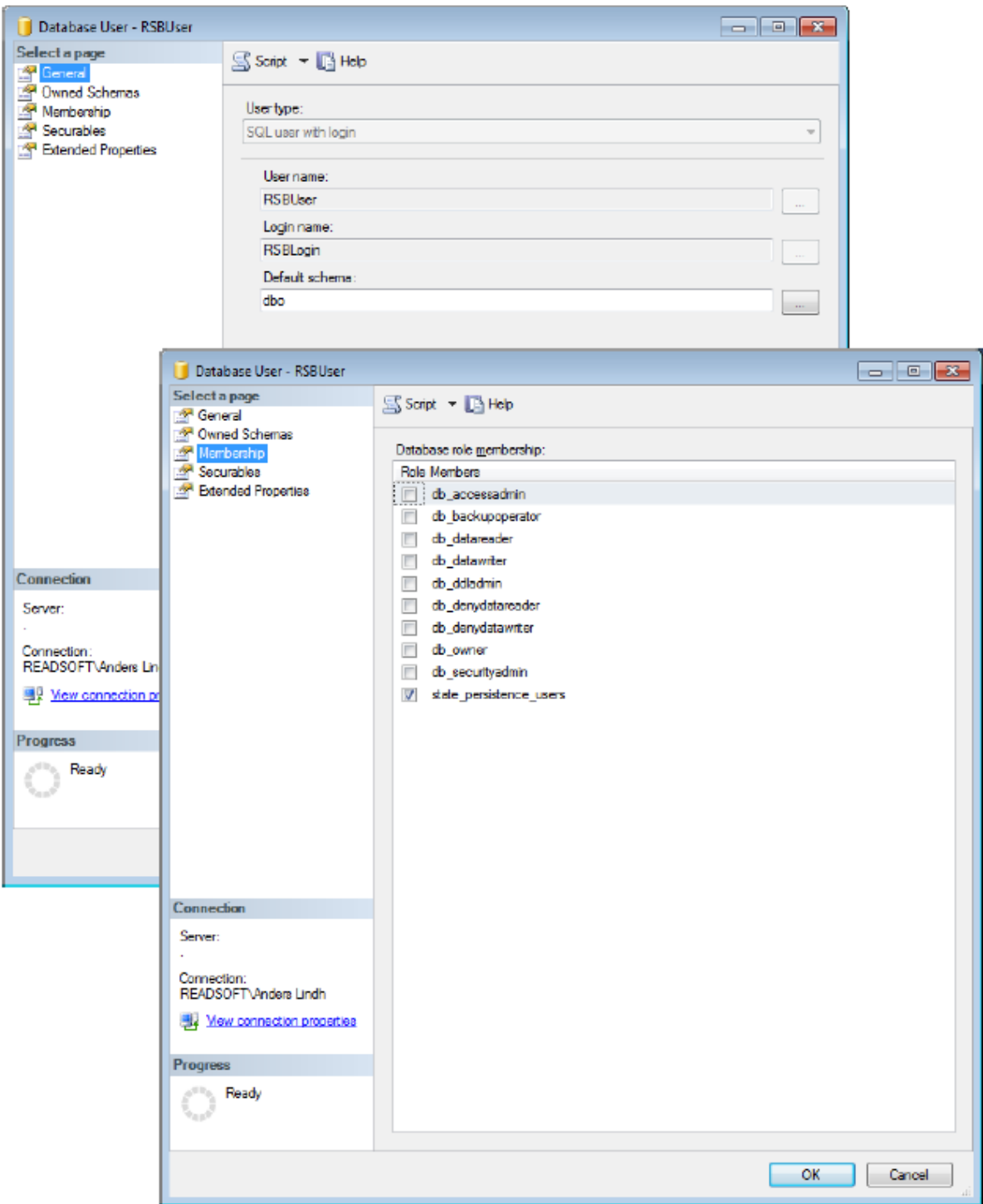
 20110905\_0325-1279.sql

 20120112\_1279-1290.sql

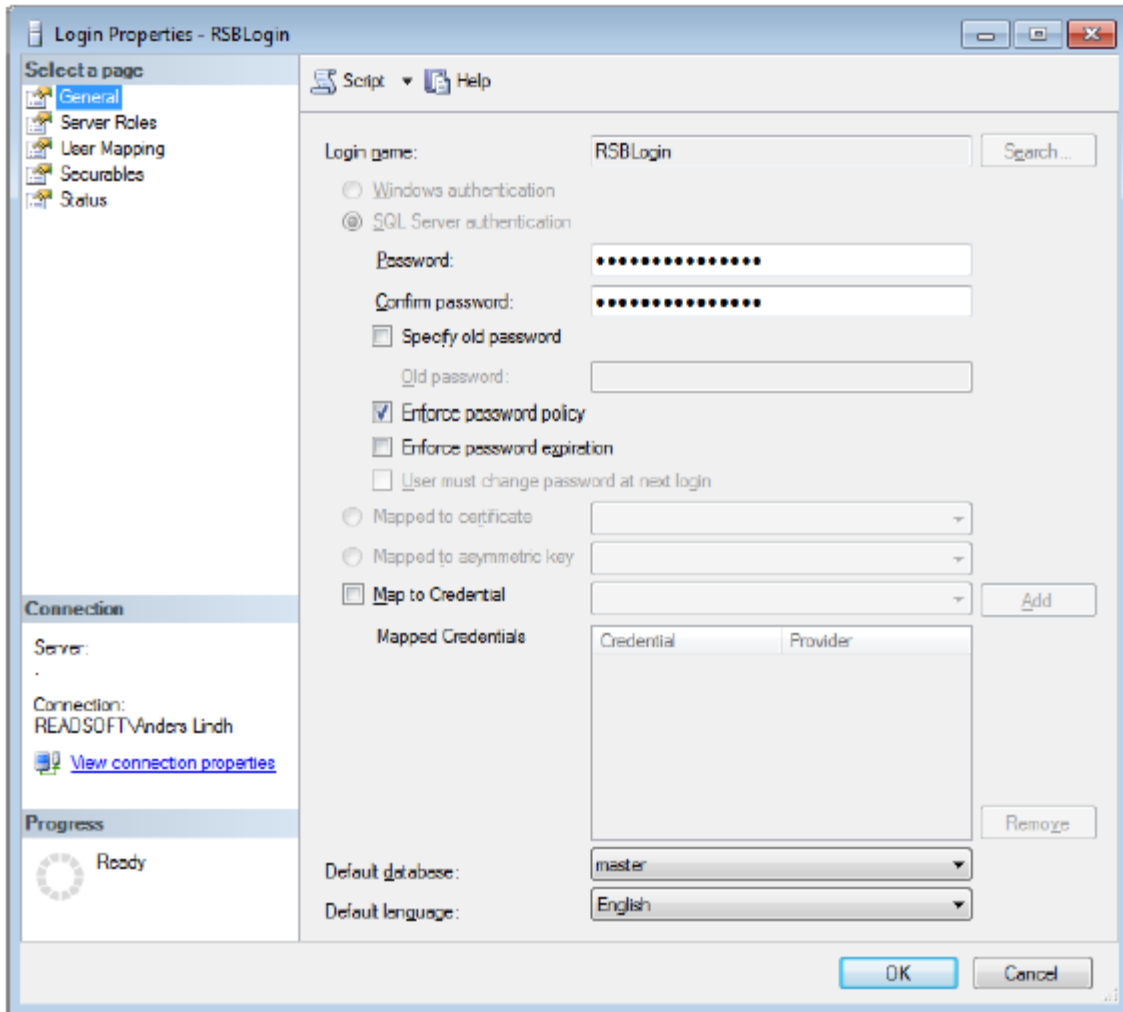
In this example, you do not need to run the first script because it covers all versions from 315 to 319, and you are already at version 319. First, you would run `201011_0319-0325.sql` to upgrade your database from version 319 to 325. Then you would continue running the scripts, in order, until your database is completely upgraded.

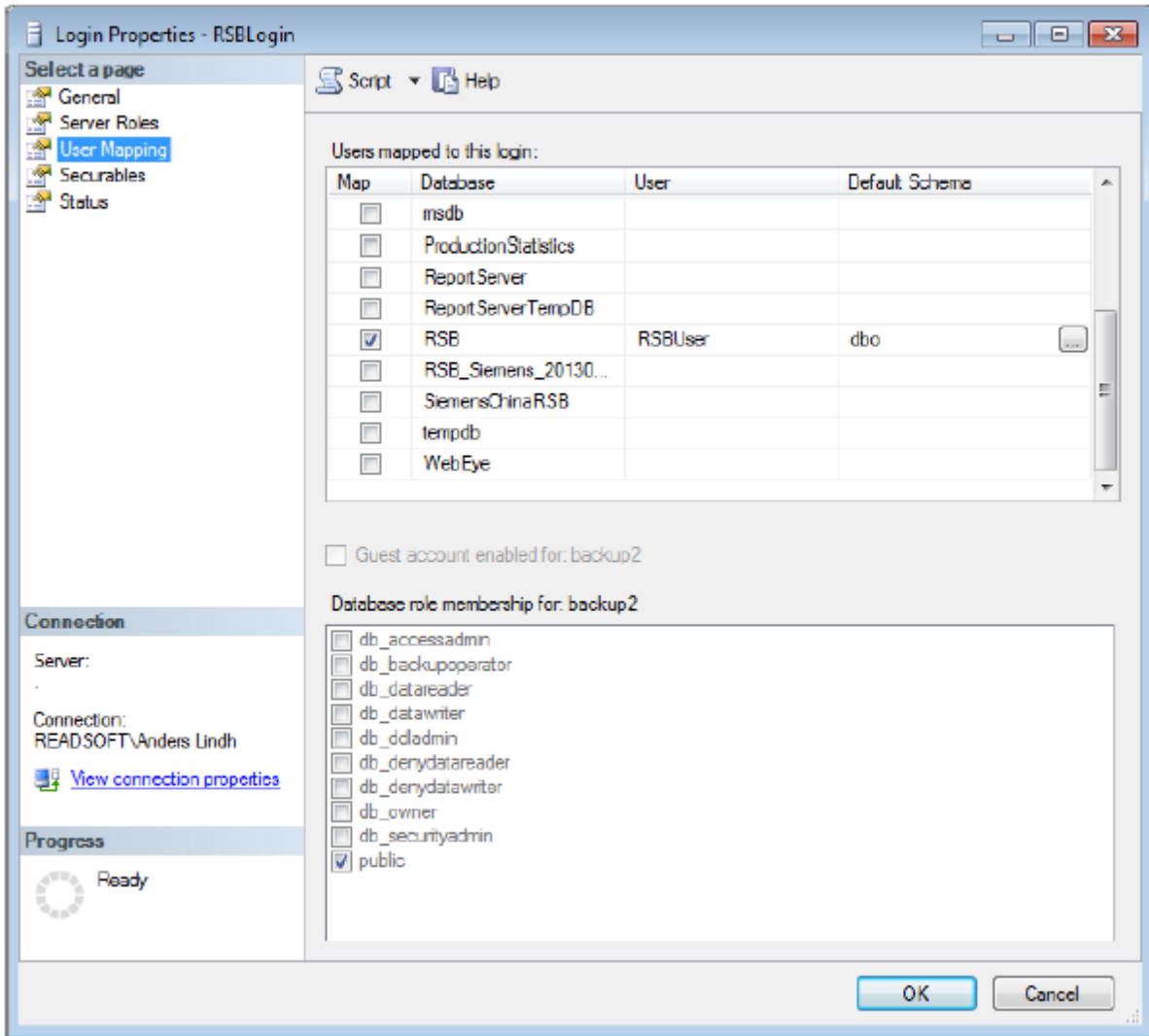
## Setting up the database user

If you chose to create the database manually in step 6, you also need to set up a database user. Create a user with the settings illustrated below:



Then specify the login properties of the RSB database using these settings:





## Connectors

RSB uses connectors to connect to source and target systems. A connector usually consists of two or more adapters, and sometimes plug-ins. An adapter describes a system, so RSB can send data between the systems in both directions. In other words, adapters enable communication between two systems.

ReadSoft Service Bus must be installed before you install an adapter. You only need to install adapters for the systems you use. Install the adapters on the same computer as RSB. Some adapters can be installed directly from the main RSB installation described in the next section. Other adapters may be found on the ReadSoft Component Center or the [ReadSoft Marketplace](#).



- ❗ It is important to consider what version of RSB an adapter was developed for and who developed the adapter. Keep in mind that some adapters—developed outside of ReadSoft’s Integration Center for older versions of RSB—might not be compatible with newer versions of RSB. Therefore, use caution when installing older adapters with newer versions of RSB.

## Adapter licensing

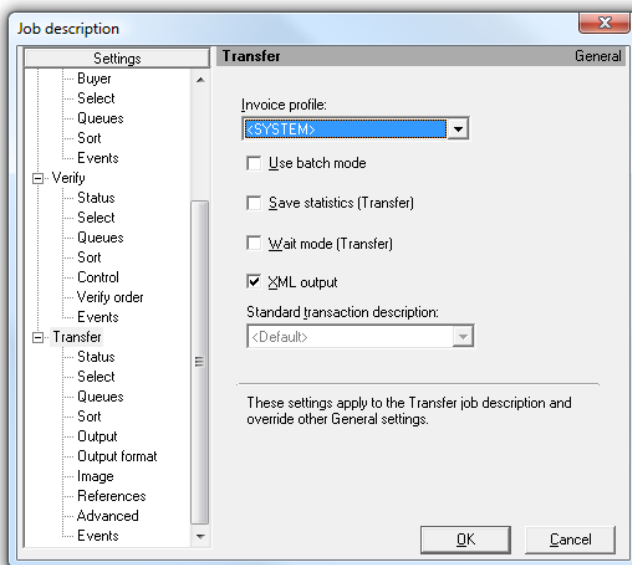
Some adapters require a license which can be purchased at the [ReadSoft Marketplace](#). When you obtain a license, you receive a file that you must save in a location that is accessible from RSB. Then when you create a service that uses that adapter, use the **License File** setting of the adapter activity to specify the path to the license file.

## RSB plug-ins

The RSB plug-in for INVOICES is installed on a computer running the INVOICES Manager module and each computer running the INVOICES Transfer module. To install the RSB plug-in, run the setup program located in the RSB INVOICES Plug-in installation folder. You must have install permissions on the same folder that EIGLOBAL.INI is located in.

Note: Do not install the plug-in on a computer that does not have INVOICES. If you do, you will get an error (1603).

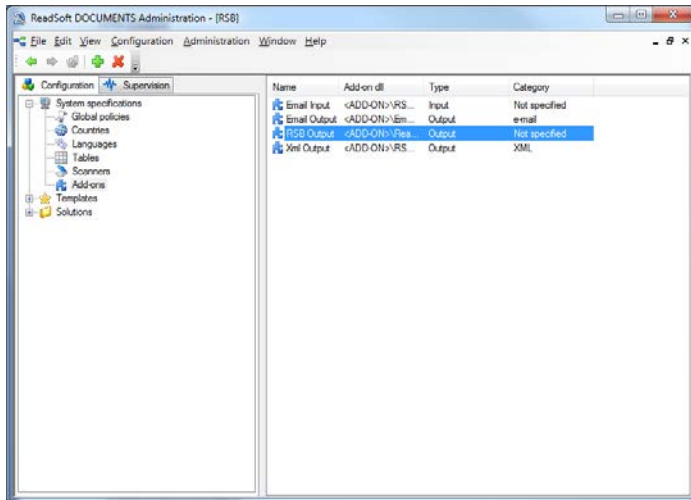
Note: In order to use RSB with INVOICES, you must enable **XML output** in the Transfer job description.



# Bundled installations

## ReadSoft DOCUMENTS

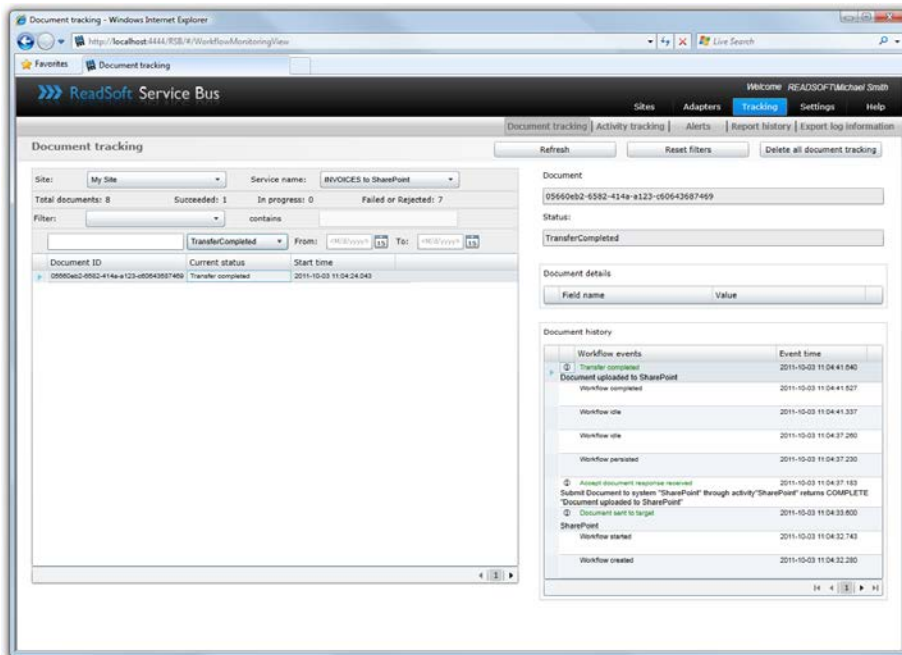
When you install ReadSoft DOCUMENTS, the RSB Plug-in for DOCUMENTS is installed automatically and appears in the **Add-on** settings. This output add-on can only be used for documents; it does not support output for batches or compound documents.



A connector for PROCESS DIRECTOR is also included with the ReadSoft DOCUMENTS installation package, but it must be installed manually. The installation can be found in the RSB folder within the DOCUMENTS installation package.

# Upgrading

Before you upgrade ReadSoft Service Bus or an adapter, stop production and make sure no documents are being processed in RSB. To check if any documents remain in the system, navigate to the **Document tracking** page and make sure no documents have statuses other than *Complete*. If you have stopped production, but there are still documents with statuses besides *Complete*, wait until all documents are *Complete* before you proceed with the upgrade.



## ReadSoft Service Bus

When you upgrade ReadSoft Service Bus, all services that are in use prior to the upgrade are deactivated.

**!** You must activate the RSB services (using the Administration page) after the installation.

During the upgrade, you are given a warning and can cancel the upgrade if:

- Documents remain in the system.
- Any adapters are incompatible with the upgrade version.

# Adapters

When you upgrade an existing adapter, the installation program deactivates services that use the adapter.

- You must check the activity settings and activate the service using the [Administration page](#) after the installation.

During the upgrade, checks are made to ensure the adapter is compatible with the current version of RSB. Any depreciated activity settings are removed and any new settings are added. Some settings can also appear to remain the same, though the data type is changed. Therefore, it is important that you check the activity settings of the service and verify that the settings are correct before you activate the service.

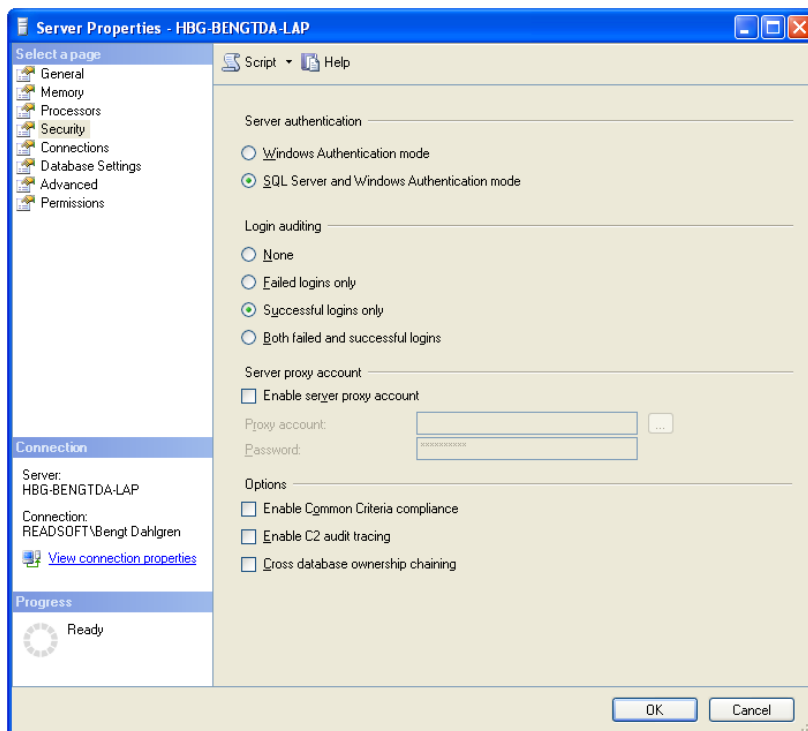
# Troubleshooting

It is important to check the following issues before you troubleshoot RSB:

- Make sure you are using the latest installation packages for RSB and its adapters from the ReadSoft Marketplace.
- Make sure all of the installations (RSB, adapters, plug-ins etc.) are compatible versions. The easiest way to do this is to download the latest versions from the ReadSoft Marketplace.
- Before you install the RSB plug-in for INVOICES, make sure you close all INVOICES modules.

## Database access

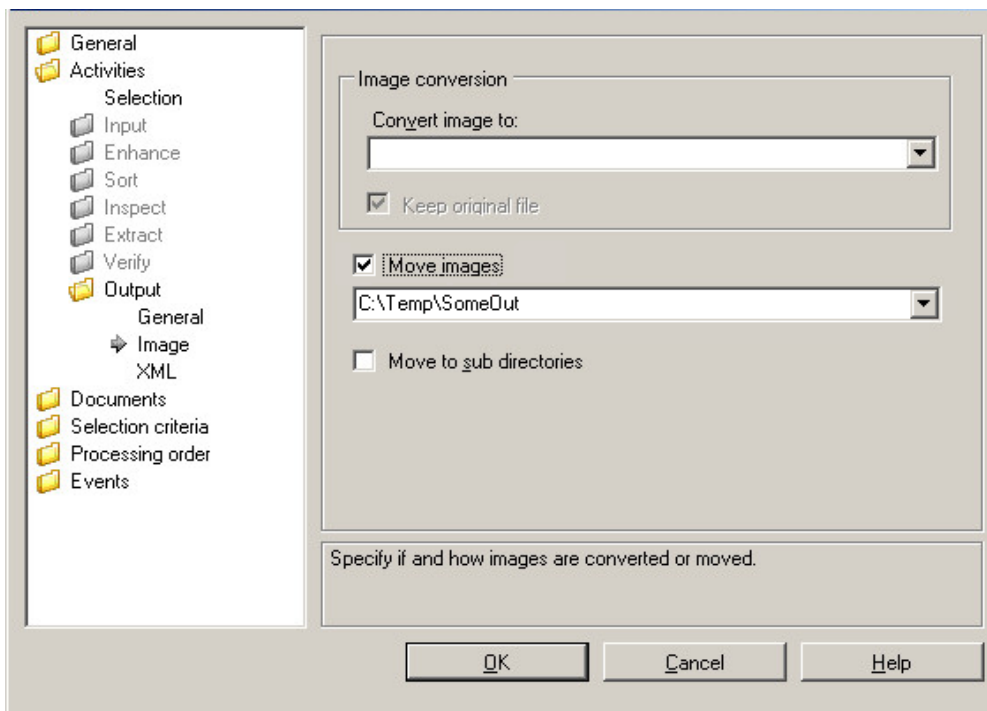
Errors can occur during installation if the installation does not have access to the database. Make sure the **Server authentication** setting on the **Security** settings on the server is set to **SQL Server and Windows Authentication mode**.



# Images access when using DOCUMENTS

If you use DOCUMENTS as a source adapter, you must select **Move images** in the production task. If **Move images** is not selected, RSB cannot retrieve the image files from DOCUMENTS.

1. Double-click a production task to display its settings.
2. Select the **Image** settings (**Activities > Output**).
3. Select **Move images** and specify the folder where you want to move the images. RSB must also have access to the folder you specify here.



## Install problems

### RSB log file shows "(405) Method not allowed"

...and/or the web interface shows raw file content (such as "<%@ServiceHost language=c# Debug="true" Service="Microsoft.ServiceModel.Samples.CalculatorService" %>") when browsing the service.

This is caused when an IIS hosted service fails. A solution can be found here:  
<http://msdn.microsoft.com/en-us/library/ms752252.aspx>

## "NETWORK SERVICE cannot access... \ASP.NET Temporary files"

This can happen if IIS was installed after .NET framework was installed.

To correct this issue, run "aspnet\_regiis -i" from the command prompt. The tool is located in the .NET framework folder.

## Installation stops when almost finished and rolls back

Start the command-line installation to invoke complete logging of the installation process.

If the log file shows the following...

"The installer has encountered an unexpected error installing this package. This may indicate a problem with this package. The error code is 2769. The arguments are: WEBCA\_EvaluateURLs, 2"

... IIS was probably installed after .NET framework was installed.

To correct this issue, run "aspnet\_regiis -i" from the command prompt. The tool is located in the .NET framework folder.

## Installation error 1603

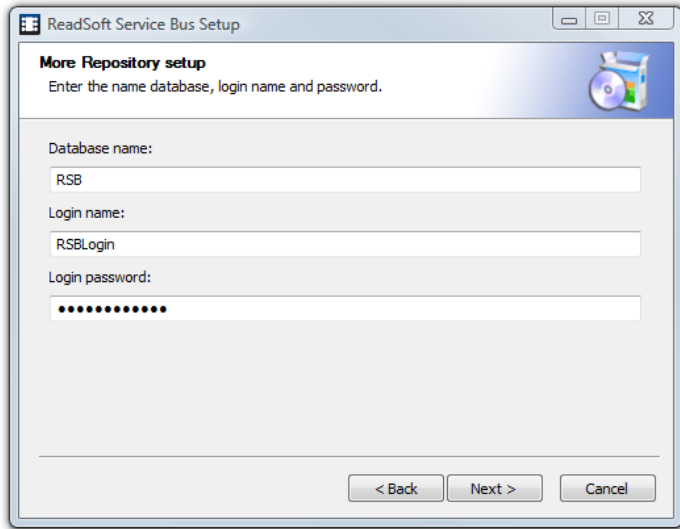
Do not install the plug-in on a computer that does not have INVOICES. If you do, you will get an error.

## Installation error 1619

You can get this error if the installation program cannot find `EILOCAL.INI`. Most likely, an environment variable is missing or incorrectly configured. To resolve this, check the Windows environment variables and make sure `READSOFTINVOICESLOCAL` exists and that the value specifies the location of `EILOCAL.INI`. You must include a backslash at the end when specifying the path.

## Failed to create database

If database creation fails, it can be because you chose a **Login name** that already exists and is in use. To solve this problem, choose a new **Login name** in the **More Repository setup** step in the installation.



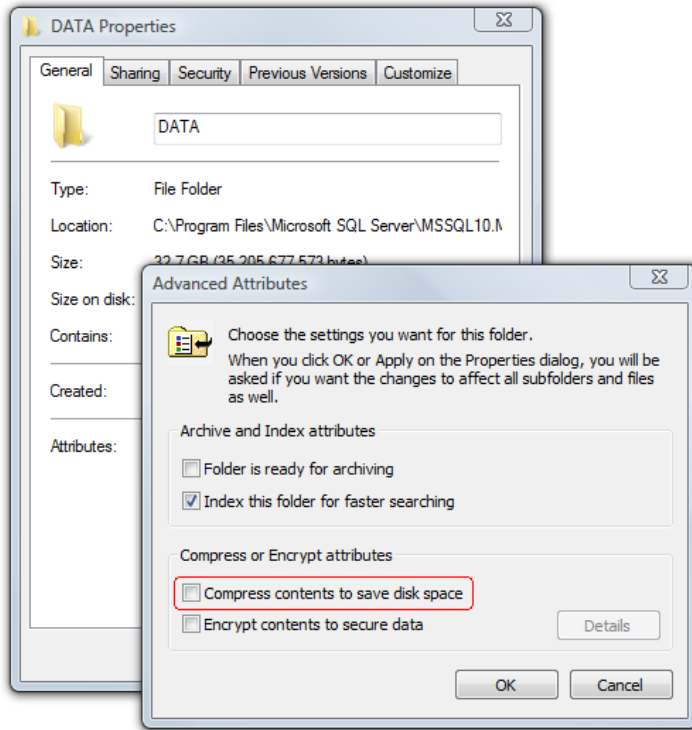
## Compressed disks

RSB can run on a compressed hard disk or folder, but the folder where SQL Server stores its data files (example: `C:\Program Files\Microsoft SQL Server\MSSQL10.MSSQLSERVER\MSSQL\DATA`) cannot be compressed during the installation. You must decompress the folder where SQL Server stores its data files before you install RSB. If you wish, you can compress the folder again after the installation.

To change the compression settings on a folder:

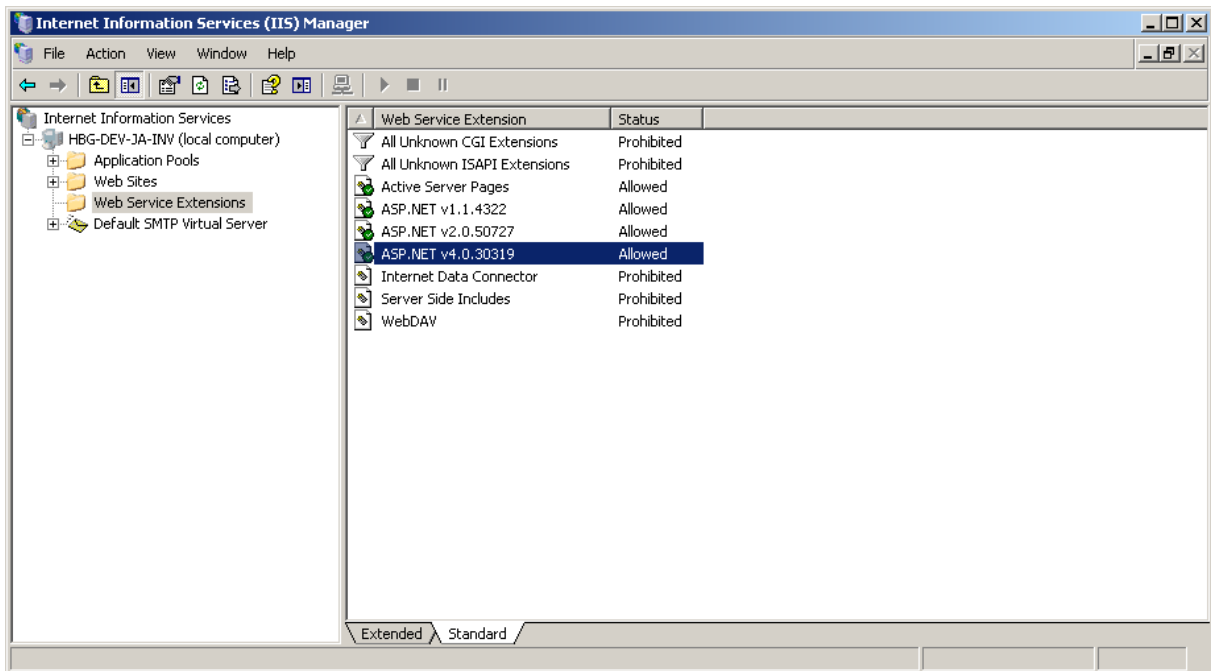
4. Browse to the folder using Windows Explorer.
5. Right-click the folder and select **Properties**.
6. Click **Advanced**.
7. Use the dialog that appears to change the compression settings.





## HTTP 401, 404 errors on Windows 2003

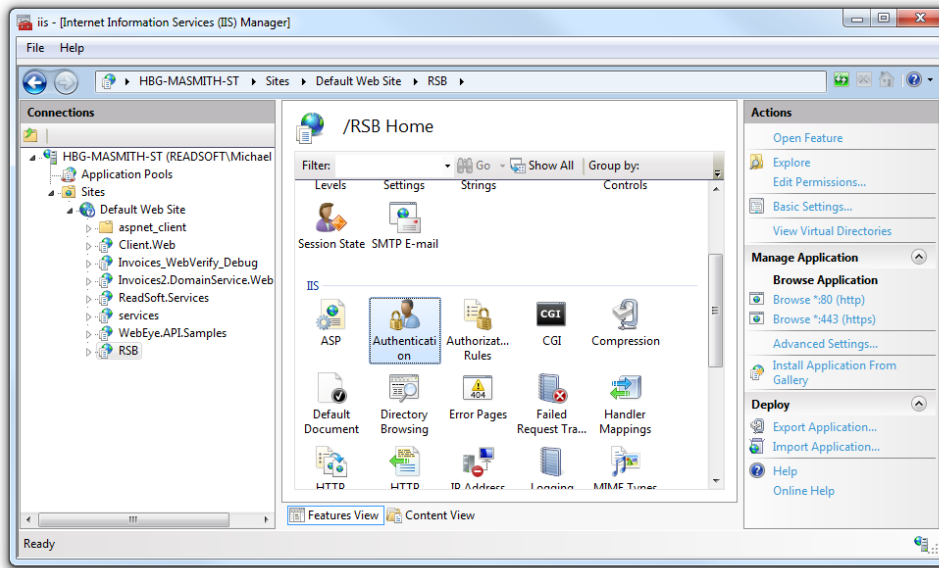
If you get a 404 error, and the log file shows a 401 error prior to the 404 error, make sure that status of ASP.NET v4.0 is set to **Allowed**. To change this setting, navigate to the **Web Service Extensions** node using Internet Information Services (IIS) 6.0 Manager.



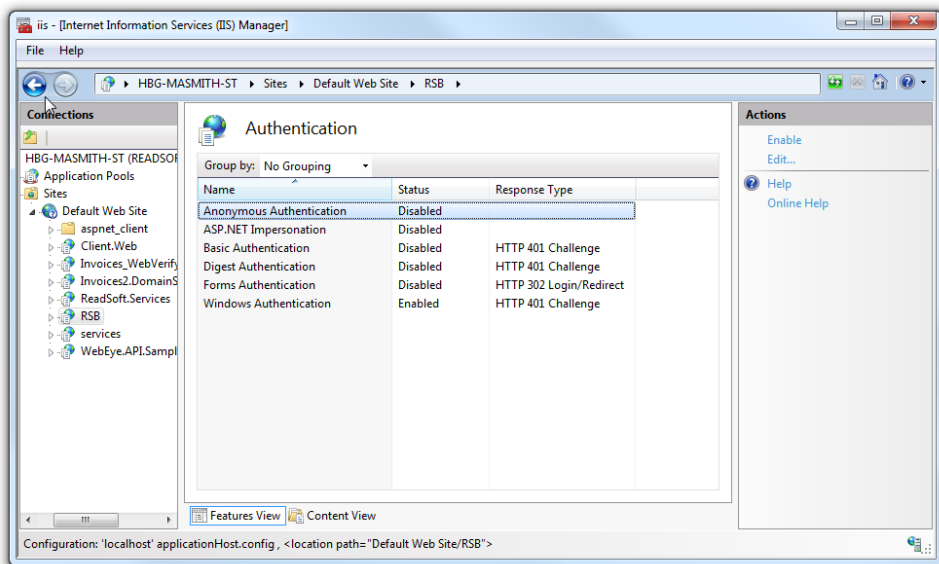
## User authentication error

If you open RSB in your web browser and receive the error, “User not authenticated,” it can be caused by incorrect authentication settings in IIS Manager. To resolve this issue, make sure **Windows Authentication** is **Enabled**, and the other authentication settings are disabled. Then restart IIS.

1. Start IIS Manager and select RSB.



2. Double-click the **Authentication** settings.
3. Make sure **Windows Authentication** is **Enabled**, and the other authentication settings are disabled.



- Restart IIS by selecting the root node in the **Connections** list and clicking **Restart**.



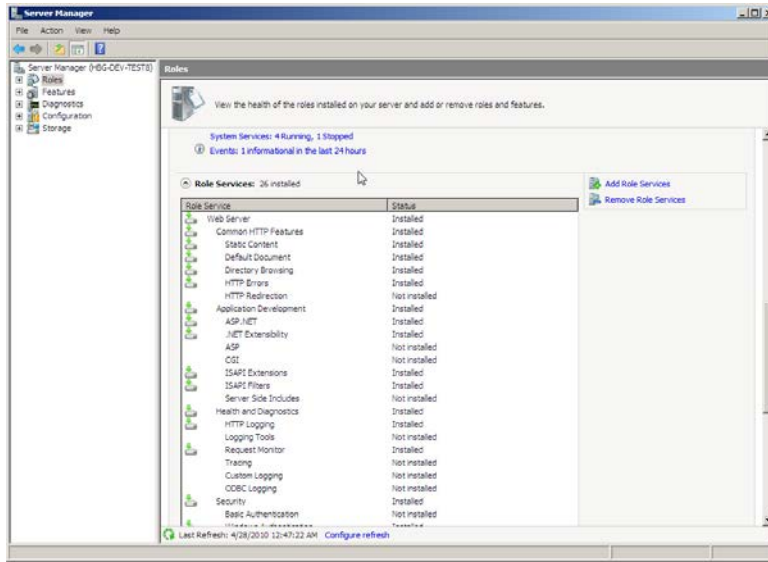
## Installing RSB on Windows Server 2008

Before you install RSB on Windows Server 2008, you must make sure the following features are installed:

- IIS 6 Management Compatibility
- ASP .NET
- Windows authentication

All of the features above can be installed using the Server Manager. To start the Server Manager and check the features:

1. Click **Start** ⇒ **All Programs** ⇒ **Administrative Tools** ⇒ **Server Manager**.
2. Select the **Roles** node in the dialog that appears and scroll down to the **Roles Services** section.



3. Make sure the following items are listed and installed:

- IIS 6 Management Compatibility
- ASP .NET
- Windows Authentication

After you confirm that the features above are installed, you can install RSB. When the installation is complete, you must follow this procedure:

1. Run Internet Explorer as an administrator.

**Note** that by default on Windows Server 2008, you do not have administrative privileges if you are logged on as a user other than the built-in administrator, even if you were added to the local Administrators group on the computer.

2. Select **Internet Options** (**Tools** menu), click the **Security** tab, and select the **Internet** zone.

3. Click **Custom level**. In the dialog that appears and make sure you use these settings:

Setting (Category)	Value
<b>File download (Downloads)</b>	<b>Enable</b>
<b>Launching applications and unsafe files (Miscellaneous)</b>	<b>Prompt (recommended)</b>

Setting (Category)	Value
Launching programs and files in an IFRAME (Miscellaneous)	Prompt (recommended)

4. Click **OK** to save the settings, and click **OK** to close the **Internet Options** dialog.
5. Close Internet Explorer and start RSB Administration. It is now possible to install Silverlight.

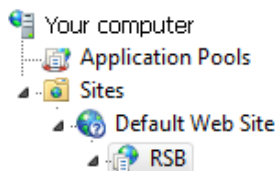
## Uninstall problems

“The following applications should be closed before continuing the install: ReadSoft Service Bus”

If this occurs, select **Do not close applications. (A reboot will be required)**. You do not have to reboot, even though the message indicates otherwise.

## User not authenticated

If you try to access RSB and receive an error message that says the use is not authenticated, make sure **Windows Authentication** is enabled, and all other settings are disabled, for RSB in IIS.



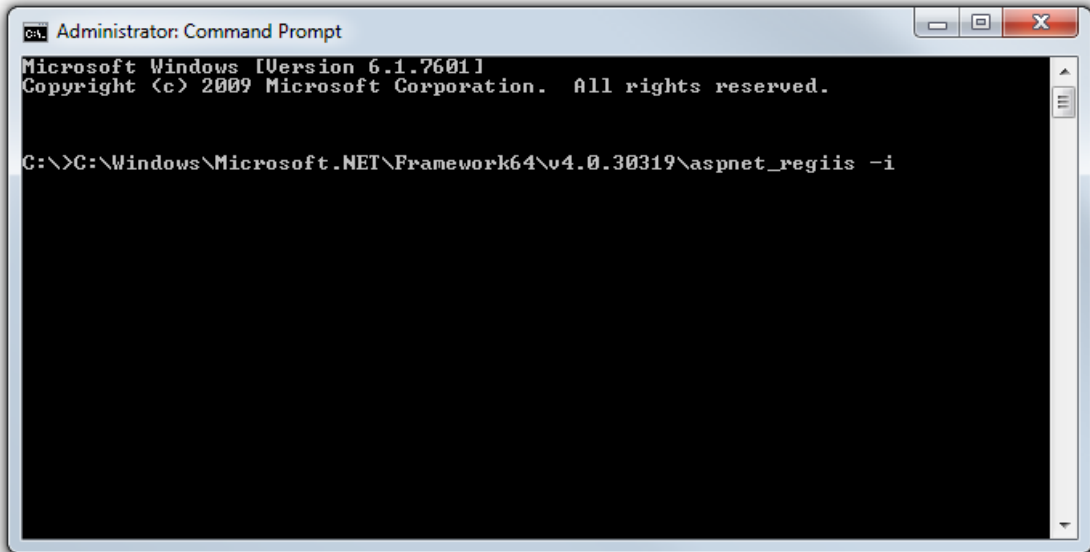
Group by: No Grouping	
Name	Status
Anonymous Authentication	Disabled
ASP.NET Impersonation	Disabled
Forms Authentication	Disabled
Windows Authentication	Enabled

## HTTP Error 401.1 Unauthorized

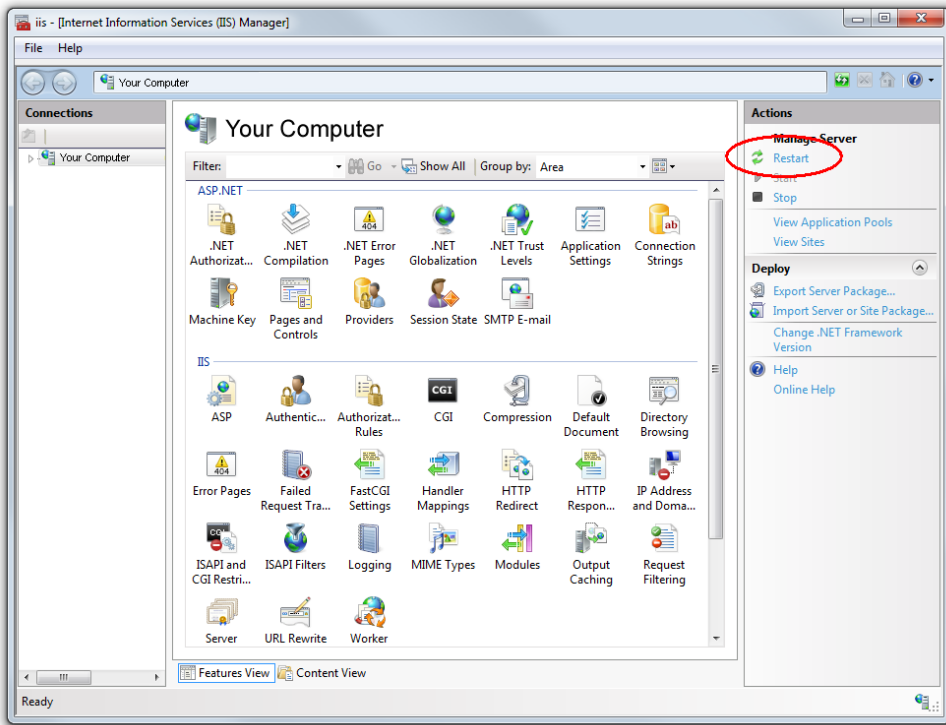
If you run RSB hosted on IIS and receive the error message above in your web browser, try this procedure:

1. Open the Windows command prompt.
2. Run the `aspnet_regiis -i` command. You must specify the full path to the command, for example:

```
C:\Windows\Microsoft.NET\Framework64\v4.0.30319\aspnet_regiis -i
```



3. Restart the server using the Internet Information Services (IIS) Manager.



## Adapter compatibility

Adapters developed by the ReadSoft Integration Center are usually maintained and kept current with the latest version of RSB. Adapters developed outside of the ReadSoft Integration Center might not have the same guarantee.

When you install an adapter, the installation program warns you if the adapter is not compatible. Using an incompatible adapter can cause unexpected problems and is not recommended.

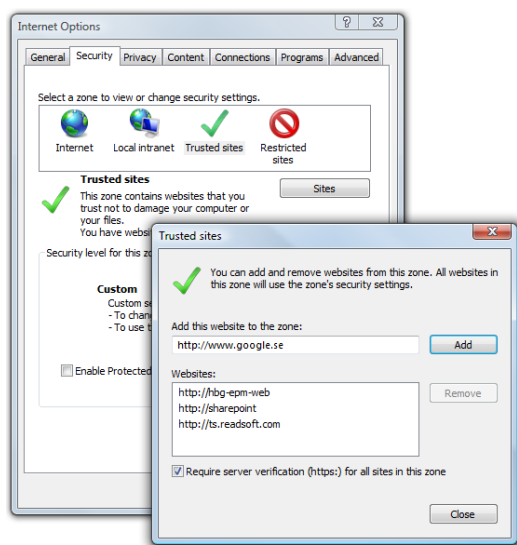
## Invoices are not sent to RSB

Sometimes invoices are not sent to RSB, even if ports, permissions and connection information is set up properly. When this happens, you can recreate your job description in INVOICES to resolve the issue.

## Help

If Help opens but appears blank or empty, it is probably because Adobe Flash Player is not installed.

Flash Player is a free program available from Adobe.com (<http://get.adobe.com/flashplayer/>). You can install it manually, or you can add “\*.adobe.com” as a trusted site in the Windows **Internet Options Security** settings to install Flash Player on demand.



## Contacting Support

If you are unable to use RSB to send invoices to the target system, please contact Support and provide log files using the following procedure:

1. Using RSB Administration, change the **Log level** setting (**Settings** view) to **DebugLog**.
2. Run a document through the system to reproduce the problem.

3. Navigate to the **Tracking** view and click **Export log information**. Save the ZIP file when prompted to do so, and attach it to your support case.