



## **XBOUND 3.7.1**

*with **ReadSoft Capture Framework 3.7.1**  
and **ReadSoft Capture Components 1.1.1***

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# Installation Guide

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# Overview

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This document describes how to install an XBOUND system, which includes:

- XBOUND (required)
- ReadSoft Capture Framework (RCF)
- ReadSoft Capture Components (RCC)
- Capture Components Administration
- Various databases

## XBOUND

A minimum operational XBOUND system consists of:

- An administration workstation, where the XBOUND Management Center is installed and from which documents can be processed interactively.
- The XBOUND database server containing an XBOUND database and the required XBOUND licenses.
- An “application server” on which the XBOUND Platform service runs.
- A “worker server” on which the remaining XBOUND services run.

**Recommended:** Install all XBOUND components on all computers, and specify by configuration which ones are actually used. This makes the system very flexible in production.

How to design processes is explained in “Processes: Overview” in *XBOUND Help*.

## ReadSoft Capture Framework (RCF)

ReadSoft Capture Framework (RCF) provides full OCR results to XBOUND, including the positions where text was found.

## ReadSoft Capture Components (RCC)

ReadSoft Capture Components includes:

- Activities – Contains all of the assemblies for the Import Solution, Classification, Inspection, Interpretation, and Knowledge Processing activities.
- Knowledge Processing – Includes the “ReadSoft Knowledge Processing Service” and the Database Configuration for creating and configuring the Knowledge Processing database. Using Knowledge Processing results in better interpretation of machine-printed character fields, date fields, and amount fields. It is recommended in solutions that include semi-structured documents.
- Inspection – Contains the Inspection client, used for examining documents, rearranging or separating documents and sheets, and classifying or canceling documents.
- Database Configuration – For creating and configuring the two databases used by RCC.

## Capture Components Administration

The Capture Components Administration module is used to set up the *solution* which is then imported into XBOUND. This module is a variant of the Administration module of ReadSoft’s DOCUMENTS product, and for those who are familiar with that, its setup is similar.

You must install Capture Components Administration on all computers where RCC will run, since those components require some DLLs that are included with Administration.

# Prerequisites

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## XBOUND

- Microsoft .NET Framework 4.0
  - Microsoft SQL Server Reporting Services (SSRS) is needed if you want to view the SSRS-based reports in XBOUND (using the Reports plug-in). For further information, see “Setting up the report server for viewing SSRS-based reports in XBOUND” on page 43.
- Note:** If you are using a 64-bit operating system, see “64-bit installation” on page 64.

## ReadSoft Capture Framework (RCF)

- DocCat (part of RCF) needs the 32-bit version Microsoft Access Drivers. If these are not yet installed, please install them from [Microsoft's Download Center](#).
- DocCat needs at least one of the following versions of Microsoft .NET Framework:
  - .NET Framework 3.5 (recommended)
  - .NET Framework 3.0
  - .NET Framework 2.0

## ReadSoft Capture Components (RCC)

### Operating systems

RCC (including Capture Components Administration) can run on:

- Microsoft Windows 7 SP1 (32-bit & 64-bit)
- Microsoft Windows 8 (64-bit)
- Microsoft Windows Server 2008 R2 (64-bit)
- Microsoft Windows Server 2012 (64-bit)

**Note:** If you are using a 64-bit operating system, see “64-bit installation” on page 64.

The operating system should be updated to the latest service pack.

### ❗ Important

- 64-bit XBOUND installations are not supported by RCC.
- The ReadSoft Knowledge Processing service is a 64-bit service and must run on a 64-bit operating system.
- Microsoft .NET Framework 4.5 is required. If XBOUND is installed, then .NET Framework 4.0 is also already installed. Version 4.5 is an update that Capture Components Administration requires.
- To install RCC and configure its databases, you need to be logged on as an administrator.

## Knowledge Processing Service hosts

- ❗ The ReadSoft Knowledge Processing service is a 64-bit service and must run on a 64-bit operating system.
- Recommended: Use one dedicated Knowledge Processing Service host computer per solution:
  - Multiple XBOUND processes running different solutions with Knowledge Processing should each have their own service host.
  - If within a single process there are process steps that use different solutions, there should be one service host per *solution*.

### Minimum RAM requirements

Depends on how many document classes are to be used for the solution:

≤ 50 classes: 4 GB

≤ 200 classes: 8 GB

≤ 1000 classes: 16 GB



## Application servers

### Minimum recommended requirements for an application server

(Normally used for automatic activities such as Interpretation and Classification)

<b>CPU</b>	Quad core. Any brand PC with an Intel or AMD processor is acceptable. Hyper threading is supported.
<b>RAM</b>	Min. 1 GB per core (min. 4 GB per application server).
<b>Disk space</b>	4 GB, with an additional 1GB per extra core for running large operations on multicore servers.

## Workstations

### Minimum recommended requirements for workstations

(Normally used for manual activities such as the Import Solution and Inspection activities)

<b>CPU</b>	Dual core. Any brand PC with an Intel or AMD processor is acceptable. Hyper threading is supported.
<b>Display</b>	19" display with 1600 x 1200 resolution or better.
<b>RAM</b>	2 GB
<b>Disk space</b>	2 GB

## Minimum recommended requirements for workstations

(Normally used for manual activities such as the Import Solution and Inspection activities)

### Scanner interfaces

Each Capture Components Administration workstation where documents are to be scanned requires one of the following scanner interfaces, depending on which scanner is chosen:

#### Kofax and SCSI cards

- Capture Components Administration supports the same scanner cards and drivers as DOCUMENTS 7. Please refer to the DOCUMENTS 7 Fact Sheet, available from ReadSoft Marketing, for the latest list of supported cards and drivers.

#### FireWire

- Certain scanners require FireWire, for example Kodak scanners in the i200 and i600 series.

#### USB 2.0

- Certain scanners have an additional USB port, for example Kodak i30/i40, and Canon 2580C.

For information about installing scanner interfaces, see the instructions supplied with the scanner.

### Drivers for scanner interfaces

#### Kofax

- Image Controls 3.65 or later
- VRS 4.2 or later. See the help topic “Using VRS with Capture Components Administration” in *Capture Components Administration Help*.

#### SCSI cards

- ISIS or ISIS-compatible driver

#### FireWire and USB 2.0

- ISIS or ISIS-compatible driver. The drivers that are included with scanner manufacturers’ standard installation are supported.

## Microsoft SQL Server

RCC requires Microsoft SQL Server databases.

- ❗ **Important:** Install and set up SQL Server *before* installing Capture Components Administration. Please refer to *Installing and Configuring Microsoft SQL Server For Use With ReadSoft Capture Components* for instructions.

# Creating an XBOUND system

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Use the procedures described in the following sections.

**Note:** If you are using a 64-bit operating system, see page 64.

## Setting up an administration workstation

You must first install XBOUND on a workstation where the initial XBOUND activities are to be executed. This also provides the SQL scripts for creating the XBOUND database.

To install the administration workstation:

1. Highly recommended: Create an XBOUND user account as described below.
2. Run the XBOUND software setup as described on page 12. Select all XBOUND plug-ins and all of their subcomponents for installation.
3. XBOUND saves all information on processes and documents in a relational database. Create the XBOUND databases as described on page 14.
4. Install an application server as described on page 29, and assign it as described on page 34.
5. Initialize the XBOUND platform and database as described on pages 35–36.

## Creating an XBOUND user account

XBOUND accesses its data via an application server on a relational database. For accessing the data, create a dedicated user account (called *XBOUND user* from now on) to which all access rights to the XBOUND database can be assigned.

**Note:** This XBOUND user is exclusively intended for data access of the application server and is not related to the end users who work with XBOUND. The end users can work with XBOUND using their regular user accounts.

**Important:** Make this a user that is centrally administered in the domain controller or Active Directory. Using local user accounts can cause problems that are difficult to resolve. **Recommended:** Prevent interactive login. This makes it more difficult for unauthorized users to access XBOUND data directly via the database.

# Installing XBOUND and related components

This section explains how to install XBOUND software components on a computer. Depending on what is selected for installation, some of the steps described below may not be needed.

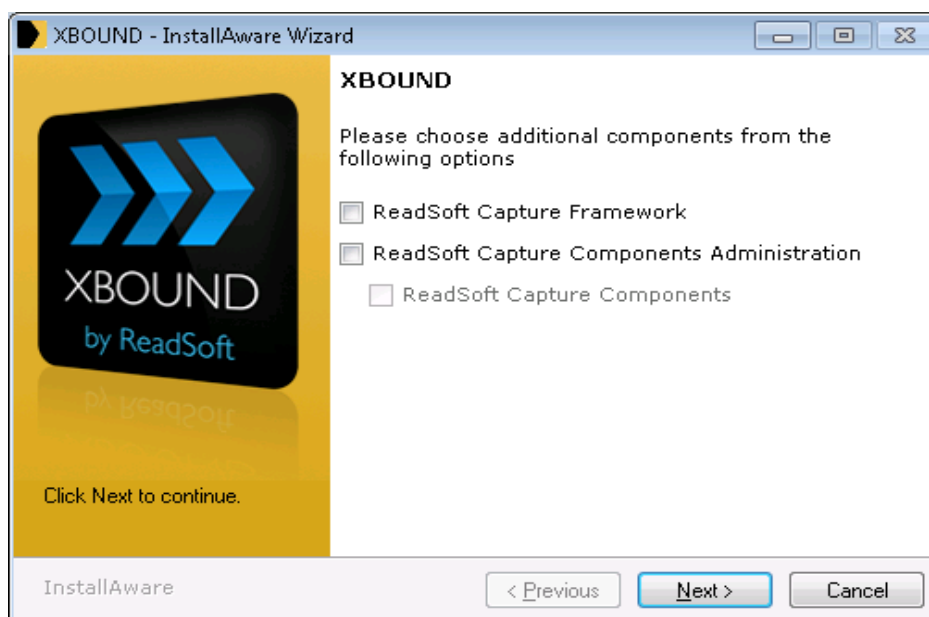
**Note:** Microsoft .NET Framework 4.0 is required. Before installing XBOUND, ensure that .NET Framework 4.0 is installed. If ReadSoft Capture Components (RCC) is to be installed, update to .NET Framework 4.5.


1. Exit all Windows programs. (Always close all other programs before installing any part of XBOUND.)
2. Log in as user with administrator rights.
3. Insert the XBOUND DVD.
4. To start a 64-bit installation, double-click `x64\Setup.exe`.

Or, to start a 32-bit installation, double-click `x86\Setup.exe`.

**Important:** The 64-bit version does not support all XBOUND components (for details, see “64-bit installation” on page 64.)

5. Select **English** and click **OK**. (**Note:** The language applies only to the installation program.)
6. If you also want to install RCF or RCC, select them in the dialog that is displayed:



 **Note:** ReadSoft Capture Components requires Capture Components Administration, and the latter must be installed first. Circumventing this requirement leads to problems. For more information see page 67.

7. Click **Next** twice.
8. Accept the terms of the license agreement and click **Next**.
9. Enter your name and company and click **Next**.
10. Select **Custom** and click **Next**.
11. Select the software components to install and click **Next**.
12. Optional: Change the installation path. Click **Next**.
13. Optional: Change the settings for the shortcuts. Click **Next**.
14. If you chose to install services, enter the user name, the password (twice) and the domain of the [XBOUND user account](#) that you created in the previous section. Click **Next**.
15. If you chose to install XBOUND ABBYY FineReader, enter the installation path and click **Next**.
16. Now that all required information has been collected, click **Next** to launch the installation actions.
17. When the installation procedure has completed, click **Finish**.

# Creating the databases

## XBOUND databases

Depending on how the system is set up, XBOUND stores data in three to five databases:

Required databases	
XBOUND database	This is the main database.
License database	Contains information about your XBOUND license.
Logging database	Contains the XBOUND log. Also contains audit trail data, if that is activated.
Optional databases	
Statistics database (optional)	<p>XBOUND can collect statistical data and save it in this separate database during the processing of documents. These statistics provide the basis of the <b>Processing Report</b> and the <b>BPO Invoice Preparation Report</b>. You can also interpret these statistics using common analysis tools.</p> <p>Recommended: Run the statistics database on an separate database server so that the performance of the XBOUND database is not adversely affected.</p> <p>After creating the statistics database, activate statistics collection in XBOUND (see “Synchronizing” on page 21).</p>
Audit trail database (optional)	<p>If XBOUND is set up to collect audit trail data, it is saved in the logging database by default. However, you can also (optionally) select to save that data to this separate audit trail database for archiving.</p> <p>After creating the audit trail database, activate the functionality in XBOUND (see “Synchronizing the audit trail database” 21).</p>

- Important:** Data is not automatically deleted from the statistics database or the audit trail database. From time to time, old data must be deleted manually from these databases using an appropriate database maintenance program.

## Supported database servers

- Microsoft SQL Server 2008 and 2012
- Oracle 9.2.0.1 and later Oracle 9 versions
- Oracle 10.1.0.2 and later Oracle 10 versions
- Oracle 11.2.0 and later Oracle 11 versions
- IBM DB/2 Express-C Version 9.5 or later.

The sections below describe how to install the XBOUND databases on these database servers. The procedure is the same for all of the databases; only the SQL scripts to use are different:

To create this database:	Default location of the SQL script to use:
XBOUND database (main database)	C:\Program Files\ReadSoft\xbound\Sql
License database	C:\Program Files\ReadSoft\xbound\Sql\License
Logging database	C:\Program Files\ReadSoft\xbound\Sql\Logging
Statistics database (optional)	C:\Program Files\ReadSoft\xbound\Sql\Statistics
Audit trail database (optional)	C:\Program Files\ReadSoft\xbound\Sql\Logging

Basic knowledge of database administration is required.

## Creating XBOUND databases on SQL Server 2008 or 2012

1. Install SQL Server on the XBOUND database server.
2. Start SQL Server Management Studio and connect to the XBOUND database server.
3. Right-click **Security** and select **New > Login**. Enter the [XBOUND user](#) details.
  - ❗ **Important:** Using Windows Authentication is strongly recommended in order to avoid the transmitting or saving of passwords in the connection string.
4. Right-click **Databases** and select **New Database**. The XBOUND application server will save its data in this database. Assign suitable parameters under **Database files**. You will find details on database tuning in your SQL Server documentation.

Click **OK** when you have set all parameters.

- ❗ **Optional:** To manage very high data traffic, you can distribute the database file groups on two or even three different physical devices. This allows the database server to parallelize the I/O requests. If you want to do this, create dedicated file groups for data, indices, and/or image data.

5. Click the icon of the new XBOUND database. Right-click **Security** and select **New > User**.
6. Enter the name of the [XBOUND user](#) under **User name**.
7. Select the XBOUND user under **Login name**.
8. Under **Database role membership**, select **db\_datareader** and **db\_datawriter**.
9. Click **OK**.
10. Right-click the XBOUND database icon and select **Properties**.
11. Click **Permissions** and select the XBOUND user.
12. Select **Grant** in the lower table of the **Execute** line.
13. Click **OK**.
14. Open the xbound\_create\_3.7.1.0.sql file in SQL Server Management Studio. It is found in C:\Program Files\ReadSoft\xbound\Sql on the administration workstation.
15. If you created database file groups on different physical devices in step 4, change the TABLESPACE\_DATA, TABLESPACE\_IND, and/or TABLESPACE\_BLOB variables on lines 5 – 7 from PRIMARY to your new file group names.
16. Click **Connect**.
17. Select the new database.
- ❗ **Warning:** This step is important, because otherwise the XBOUND database objects are created in the master database!
18. Make sure you are in the correct database for the script, and click **Execute**.
19. Check your messages. You should see a “Query executed successfully” message.



## Creating XBOUND databases on Oracle 9.2.0.1

1. Install Oracle 9.2.0.1 on the XBOUND database server.
2. Optional: To manage very high data traffic, you can distribute the tablespaces on two or even three different physical devices. This allows the database server to parallelize the I/O requests. If you want to do this, create dedicated tablespaces data, indices, and/or image data.
3. Create a user for XBOUND and give that user all access rights to the tablespaces in which data and indices are to be saved (in the simplest case UNLIMITED TABLESPACE).
 

**❗ Important:** Using Windows authentication is strongly recommended in order to avoid the transmitting or saving passwords in the connection string. You will find more details of setting up Windows authentication regarding your database in the Oracle documentation or suitable third-party products.
4. Start SQL\*Plus Worksheet and log in as the XBOUND user.
5. Open the xbound\_create\_oracle\_3.7.1.0.sql file. By default this is found in C:\Program Files\ReadSoft\xbound\Sql on the administration workstation.
6. If you created tablespaces on different physical devices in step 2, change the TABLESPACE\_DATA, TABLESPACE\_IND, and/or TABLESPACE\_BLOB variables on lines 2 – 4 from USERS to your new tablespace names.
7. Execute the SQL script.

## Creating XBOUND databases on Oracle 10.2.0.1 or 11.2.0


1. Install Oracle on the XBOUND database server.
2. Optional: To manage very high data traffic, you can distribute the tablespaces on two or even three different physical devices. This allows the database server to parallelize the I/O requests. If you want to do this, create dedicated tablespaces data, indices, and/or image data.
3. Create a user for XBOUND and give that user all rights to create, change and delete tables as well as to create procedures, indices and sequences. In the simplest case, use at least these rights:
 

<ul style="list-style-type: none"> <li>• ALTER ANY TABLE</li> <li>• CREATE ANY INDEX</li> <li>• CREATE ANY PROCEDURE</li> <li>• CREATE ANY SEQUENCE</li> </ul>	<ul style="list-style-type: none"> <li>• CREATE ANY TABLE</li> <li>• DROP ANY TABLE</li> <li>• UNLIMITED TABLESPACE</li> </ul>
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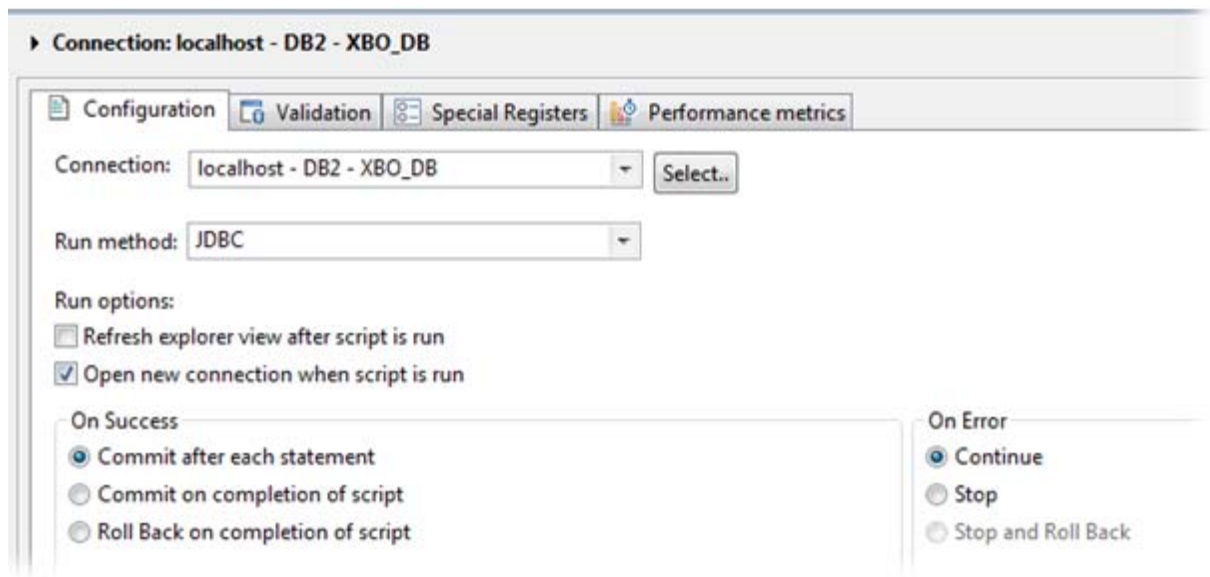
- ❗ **Important:** Using Windows authentication is strongly recommended in order to avoid transmitting or saving passwords in the connection string. You will find more details of setting up the Windows authentication regarding your database in the Oracle documentation or suitable third-party products.


4. Start a program like SQL Developer which you can use to execute SQL scripts on your Oracle database.
5. Log in as the XBOUND user to Oracle and load `xbound_create_oracle_3.7.1.0.sql`. By default this file is found in `C:\Program Files\ReadSoft\xbound\Sql` on the administration workstation.
6. If you created tablespaces on different physical devices in step 2, change the `TABLESPACE_DATA`, `TABLESPACE_IND`, and/or `TABLESPACE_BLOB` variables on lines 2 – 4 from `USERS` to your new tablespace names.
7. Execute the SQL script.

## Creating XBOUND databases on IBM DB/2 Express I0.x

1. Install IBM DB/2 Express on the XBOUND database server.
2. Start IBM Data Studio.
3. Expand **All Databases > localhost**.
4. Right-click **DB2** and select **New Database**. Create a database for XBOUND.
  - ❗ **Optional:** To manage very high data traffic, you can distribute the database tables on two or even three different physical devices. This allows the database server to parallelize the I/O requests. If you want to do this, create dedicated database tables data, indices, and/or image data.
  - ❗ **Important:** Change the **Page size of the default buffer pool and table space** setting to 8 KB.
5. Select the **DB Users** folder of this database.
6. Add the [XBOUND user](#) and select every access option.
7. Under **DB2**, select the new database and click the **SQL** button ()


8. In the configuration screen, select the connection to use for executing the script.



9. Click the **Select script** button (  ) and select the XBOUND\_create\_db2\_3.7.1.0.sql file. By default this file is found in C:\Program Files\ReadSoft\xbound\Sql on the administration workstation.

- ❗ **Note:** The script creates the database object in the XBOUND schema. To create the objects in another schema, you must first change the script by replacing all occurrences of XBOUND by your desired schema.
- ❗ If you created tables on different physical devices in step 3, search for IN USERSPACE1 in the entire file and replace it with the name of the new table, for example IN TABLENAME.

10. As **Statement termination character**, enter a hash symbol (#).

11. Execute the script (  ).

12. A dialog displays the log result. Check the results.

## Creating XBOUND databases on IBM DB/2 Express-C 9.5 to 9.8

1. Install IBM DB/2 Express-C on the XBOUND database server.
2. Start **DB2 Control Center**.
3. Create a database for XBOUND.
  - ❗ **Optional:** To manage very high data traffic, you can distribute the database tables on two or even three different physical devices. This allows the database server to parallelize the I/O requests. If you want to do this, create dedicated database tables data, indices, and/or image data.
4. Select the **DB Users** folder of this database.
5. Add the [XBOUND user](#) and select every access option.
6. On the database, select **Selected > Queries**.
7. Select **Selected > Open** and open `xbound_create_db2_3.7.1.0.sql`. By default this file is found in `C:\Program Files\ReadSoft\xbound\Sql` on the administration workstation.
  - ❗ **Note:** The script creates the database object in the XBOUND schema. To create the objects in another schema, you must first change the script by replacing all occurrences of XBOUND by your desired schema.
  - ❗ If you created tables on different physical devices in step 3, search for `IN USERSPACE1` in the entire file and replace it with the name of the new table, for example `IN TABLENAME`.
8. As **Statement termination character**, enter a hash symbol (#).
9. Click **Execute**.

## Synchronizing XBOUND databases

If you created a statistics database, you must synchronize it with the main database. Likewise, if you created an audit trail database, you must synchronize it with the logging database.

These databases may need to be synchronized at other times, as well, for example if they were offline.

### Synchronizing the statistics database

1. Using the XBOUND Management Center, open a console containing the Data Manager plug-in.
2. In the **Statistics** area, click the link that says **Click here for reading or changing the settings**.
3. Specify the connection data for the statistics database, and click **Check connection** to test the connection.
4. If it is not selected already, select **Activate statistics**.
5. Click **Synchronize now** and confirm with **Yes**. The statistical data from the production database starts synchronizing to the statistics database. Wait until the action finishes.
  - ⚠ This can take several minutes or even hours, depending on the amount of production data and the database server's performance.
6. Click **OK**.
7. Check the status line in the Process Designer to see whether synchronization was successful. If there was an error, double-click the error message to see a more detailed description and resolve the problem.

Now any changes to the statistics data are automatically kept synchronized in the statistics database.

- ❖ The linking of the production database to the statistics database is specified in the **StatisticsDB** keyword of the **C\_DBInfo** table in the main database. That keyword stores the connection string for the statistics database.

### Synchronizing the audit trail database

1. Using the XBOUND Management Center, open a console containing the Data Manager plug-in.
2. In the **Audit** area, click the link that says **Click here for reading or changing the settings**.
3. Specify the connection data for the statistics database, and click **Check connection** to test the connection.

4. If it is not selected already, select **Activate Audit Synchronization**.
5. Click **Synchronize now** and confirm with **Yes**. The audit messages from the logging database are start synchronizing to the audit trail database. Wait until the action has finished.
  - ⓘ **This can take several minutes or even hours, depending on the number of audit messages and the database server's performance.**
6. Click **OK**.

Now any audit messages are automatically kept synchronized in the audit trail database. Exception: If the audit trail database goes offline, you should synchronize the audit messages again when the database is running again.

## Databases for ReadSoft Capture Components and Capture Components Administration

### Setting up the configuration and production databases

Use the below procedure to create and initialize the two databases that are required by RCC:

- The configuration database will contain the Capture Components Administration configuration data, and the solutions that you create.
- The production database will contain the solutions that you deploy to it using Capture Components Administration.

(A third database is optional – see “Setting up the Knowledge Processing database” on page 27.)

- ⓘ **Note:** To create a database that uses Windows authentication, you must log in as a Windows user with administrator rights.

Even if the database will not use Windows authentication, you must still at least be an administrator *on the computer*. If not, it is sometimes (depending on UAC settings) possible to enter administrator details and proceed.

- ⓘ **Tip:** You can also set up the databases manually – see “Setting up the configuration and production databases manually, using SQL scripts” on page 25.

This procedure requires **Database Configuration**, part of the RCC installation.

1. Select **Start** menu > **All Programs** > **ReadSoft** > **Capture Components** > **Configuration**.
  2. In the navigation panel, select **Capture Components** > **Database Configuration**.
  3. Specify the server installation (**Server** setting) where the databases are to be created.
  4. In the **Database name** box, specify the name of the database to create. (When you click **Create**, *two* databases are created, one with the name you specify and one with the extension `_PRODUCTION`.)
  5. Now you must select how to connect to the database:
    - To use Windows authentication—both when creating the database and when accessing the database from Capture Components Administration:
      - a) Select **Use Windows authentication**.
      - b) At the bottom of the dialog, fill in the domain and user name (or Active Directory user group) that will need access to the database.
- Continue to the next step.
- Or, specify the following details:
    - c) In the **Server login** and **Server password** boxes, specify an administrator login name and password for the server installation that you specified in step 3. This user is used only to:
      - Create the user that RCC will always use (no matter which user is using the program) to connect to the databases (see step d).
      - Create the databases (step 7).

The screenshot shows the 'ReadSoft Configuration Tools' window with the 'Database Configuration' tab selected. The left sidebar shows 'Capture Components' and 'Knowledge Processing', both with 'Database Configuration' sub-items. The main area contains the following fields and controls:

- ☐ IsWindowsAuthentication
- Server: dbserver (dropdown menu)
- ServerLogin: sa (text box)
- ServerPassword: (password box with 10 dots)
- DatabaseName: RCC (text box)
- DatabaseLogin: rcc\_user (text box)
- DatabasePassword: (password box with 10 dots)
- Domain UserGroup: (empty text box)
- Buttons: Test, Create, Save

- d) In the **DatabaseLogin** and **DatabasePassword** boxes, specify a login name and password that RCC will always use (no matter which user is using the program) to connect to the databases.

**Note:** The password will not be encrypted in the Windows Registry. If you need more security, use Windows authentication (see above).

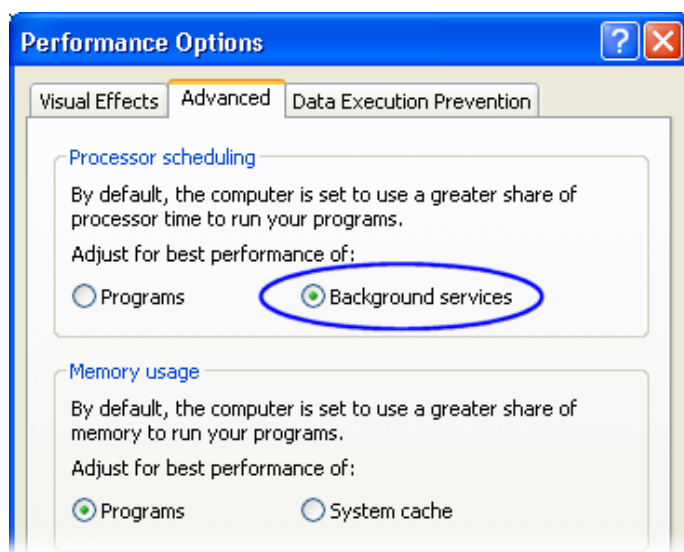
6. Click **Test** to test the connection.
7. Click **Create**. (**Save** is used when *switching* databases – see page 64.) Two databases are created, and the Windows Registry is updated.



## Using a dedicated database server

After setting up the databases, follow this procedure to dedicate the server to the database:

1. Select **Start** menu > **Settings** > **Control Panel** > **System**.
2. Click the **Advanced** tab.
3. Under **Performance**, click **Settings**.
4. On the **Advanced** tab, in the **Processor scheduling** box, select **Background services**.



## Setting up the configuration and production databases manually, using SQL scripts

You can manually create the databases, and then configure them using the SQL script files provided. This is an alternative to the procedure described under “Setting up the configuration and production databases” on page 22.

- Note:** This procedure should only be performed by a database administrator or a ReadSoft consultant.

### Before you begin

- Copy the three script files (`CreateTables.sql`, `GrantUser.sql`, and `CreateData.sql`) from the configuration tools folder (by default this is `C:\Program Files\ReadSoft\Configuration Tools\Bin`) to another location.

Do not delete or move the original files. They are used by the configuration tools and you may need them later.

- Ensure that you have database permission to create databases and logins and to execute database scripts in SQL Server Management Studio.

Script	What it does
CreateTables.sql	Creates the database structure for RCC. Execute this script for each of the databases.
GrantUser.sql	Adds the roles db_datawriter, db_datareader and db_ddladmin to the user, and grants Execute rights for all stored procedures to the user. Execute this script for each of the databases.
CreateData.sql	Updates the <b>runtime</b> systems table with server name, database name, user name, and password. Execute this script on the configuration database.

### Use this procedure

1. Start SQL Server Management Studio.
2. Create the first database named (for example) RSCaptureComponents.  
  
This “configuration database” will contain the Capture Components Administration configuration data, and the solutions that you create.
3. Create a second database named (for example) RSCaptureComponents\_PRODUCTION.
4. Create or add a SQL Server login. This login will also be used as the database user for both databases. If you want to use a Windows user name or Windows group name, then the user or group must exist in the Active Directory.
5. For each database, execute the SQL script CreateTables.sql.
6. In the GrantUser.sql script, change these parameters:
  - \$(databasename) – the name of the configuration database that you created in step 2 (for example RSCaptureComponents).
  - \$(user) – the user name (same as the SQL Server login that you created in step 4).
7. Execute GrantUser.sql for each database.
8. In the CreateData.sql script, change these parameters:
  - \$(server) – the name of the SQL Server.
  - \$(databasename) – the name of the production database that you created in step 3.

- `$(user)` – the user name (same as the SQL Server login, see step 4). Leave this empty if you are using Windows authentication.
- `$(encpwd)` – the user password. Leave this empty if you are using Windows authentication.

9. For the configuration database that you created in step 2, execute the SQL script `CreateData.sql`.

## Setting up the Knowledge Processing database

Use the below procedure to create and initialize the Knowledge Processing database (the database will contain the Capture Components Knowledge Processing data.) This procedure requires that you installed **Knowledge Processing**, which includes the Knowledge Processing database configuration tool.

- Tip:** You can also set up the database manually – see “Setting up the configuration and production databases manually, using SQL scripts” on page 29.

## Important notes about the Knowledge Processing database

- The user created by the database configuration tool is given “read” and “write” permissions. To run stored procedures, “execute” permission is also needed, and you must grant that permission manually.
- The database created by the database configuration tool has the same recovery model as the “model” database. For the Knowledge Processing database, the “Simple” recovery model is recommended.
- Knowledge Processing does not automatically clean up after itself during production. Therefore, we recommend creating a job that removes inactive LDPs. (See “Removing inactive LDPs” in *ReadSoft Capture Components Help* for instructions.)

## Use this procedure

1. Select **Start** menu > **All Programs** > **ReadSoft** > **Capture Components** > **Configuration**.
2. In the navigation panel, select **Knowledge Processing** > **Database Configuration**.
3. Type in the settings:
  - **Server\*** – the server where Knowledge Processing will have its database.
  - **Server login** and **Server password** – a user login name and password for accessing the database server. The user must be an administrator with permission to create the database and add other database users.

The server login details are not saved with the settings, so these details must be entered each time you want to test or update these settings.

- **Database name\*** – a name for the Knowledge Processing database. (This will be created when you click **Create**.)
- **Database login\*** and **Database password\*** – a user name and password that the ReadSoft Knowledge Processing Service can use to access the database.

The user you specify will be created if you click **Create**. The user will have read/write access to the database. It is only used by the ReadSoft Knowledge Processing Service and does not need to be specified anywhere else (for example inside XBOUND).

The screenshot shows the 'ReadSoft Configuration Tools' window. On the left, a tree view shows 'Capture Components' expanded, with 'Database Configuration' selected. The main area contains the following fields:

- Server:** A dropdown menu with 'dbserver' selected.
- ServerLogin:** A text box containing 'sa'.
- ServerPassword:** A text box with masked characters (dots).
- DatabaseName:** A text box containing 'CapComponents\_KP'.
- DatabaseLogin:** A text box containing 'ks\_user'.
- DatabasePassword:** A text box with masked characters (dots).

At the bottom right, there are three buttons: 'Test', 'Create', and 'Save'.

4. Click **Test** to test the connection.
5. Click **Create** to create the database and the database user. (**Save** is used when *switching* databases – described on page 64 – or updating the stored settings.)

\* The settings are saved in a configuration file: C:\ProgramData\ReadSoft\Documents\KnowledgeStore\ReadSoft.KnowledgeStore.Database.config.

## Setting up the Knowledge Processing database manually, using a script

You can manually create the Knowledge Processing database, and then configure it using the SQL script file provided. This is an alternative to the procedure described under “Setting up the Knowledge Processing database” on page 27.

**Note:** This procedure should only be performed by a database administrator or a ReadSoft consultant.

Before you begin, make sure that you see the two required script files in `C:\Program Files (x86)\ReadSoft\Capture Components\SqlScripts\KnowledgeStore`:

Script	What it does
00 Create Script.sql	Creates the database structure for ReadSoft Capture Components Knowledge Processing.
01 Upgrade Script.sql	Creates indexes and stored procedures. If you have an older version of the software, only run this script to upgrade an existing database.

### Use this procedure

1. Start SQL Server Management Studio.
2. Create the database named (for example) CapComponents\_KP.
3. Create or add a SQL Server login. This login will also be used as the database user, so grant it read and write permissions.
4. Execute the SQL script `00 Create Script.sql`.
5. Execute the SQL script `01 Upgrade script.sql`.

## Installing the application server

Two alternatives of running the application server are offered by XBOUND:

- Within XBOUND Platform Service.
- As XML Web Service in Internet Information Server (IIS).

The same server-side code (XBOUND Server) is executed with both alternatives, only the communication (the so-called *binding*) and the execution environment in which the XBOUND Server runs differs.

The XBOUND Platform Service supports all communication possibilities (bindings) except WebService (see below) offered by XBOUND and can be configured very easily.

XML Web Services use the IIS infrastructure and communicate using HTTP requests, which contain the data to be transmitted in XML format (Binding WebService).

The following sections describe the installation and configuration of both alternatives.

## XBOUND Platform Service

1. Complete the XBOUND software setup as described on page 12, selecting **XBOUND Platform Service** to install.
2. Start XBOUND Management Center by selecting **Start > All Programs > ReadSoft > XBOUND > XBOUND Management Center**.
3. Open a console containing the Common Configuration Manager plug-in.
4. Click **XBOUND Platform Service** and select the **XBOUND Connection** tab.
5. Select in **Database Provider** whether to use Microsoft SQL Server, Oracle or DB/2.
6. Select in **Database Server Name** the database server (for SQL Server and DB/2) or the service (Oracle).
7. Select in **Authentication Type** whether the integrated security of Windows is to be used for logging in (recommended). If not, enter user name and password.
8. If an SQL Server or DB/2 is used, enter the name of the database in **Database Name**.
9. Click **Check connection** to see if a connection to the database can be established.
  - ❗ **Note:** If you work with Windows authentication (recommended), please be aware that this connection test is done from your Windows session. It must also be ensured that the user who runs the XBOUND Platform Service has all required rights to access the database.
10. Select **XBOUND Service Logging Connection** and configure the connection to the XBOUND logging database in the same way.
11. Click **Save**.
12. Start the XBOUND Platform Service. (There are instructions on page 66.)
13. If it is not possible to start the XBOUND Platform Service because of an incorrect login, open this service in the Windows Service Manager and reenter the data of the [XBOUND user account](#). Restart the XBOUND Platform Service.

14. If the Platform service immediately closes again, include the XBOUND user in the group of the application server's local administrators, start the platform service once and stop it. Now you can take the XBOUND user out of the local administrator group and start the service successfully.

## WebService

- Note:** There are numerous ways in which the XBOUND application server could be configured. However, consider the following advice:
- Avoid the **Activate anonymous access** option. Enforce authentication of the end user to your domain or to another trusted domain.
  - The XBOUND Server should run using the [XBOUND user](#), in order to avoid giving database rights to any other user account.
1. To install the WebService application server support, complete the XBOUND software setup as described on page 12, selecting **XBOUND WebService** for installation. (Note that **XBOUND WebService** is only available if Internet Information Server (IIS) is installed on the computer.)

Alternatively, use the `INSTALL_XBOUNDWEBSERVICEAPI` property to install the WebService API in the IIS website **xboundWebService**. The preconfigured settings are as follows:

- ASP.NET Version = 4.0.30319
- Anonymous access = true
- TCP Port = 5555
- Virtual Path = xboundWebService
- Handler Mapping Feature permissions:
  - Read = true
  - Script = true
  - Execute = true

2. If you are using Internet Information Server (IIS) version 7.0, register .NET Framework 4.0 using this procedure:

- a) Open a command prompt and run this command:

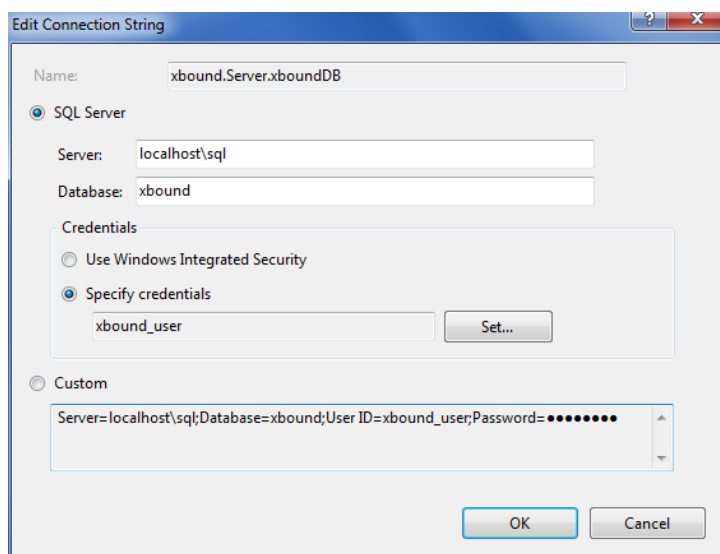
```
C:\Windows\Microsoft.NET\Framework\v4.0.30319\aspnet_regiis.exe -I
```

- b) Restart the web server.

**Note:** IIS versions 7.5 and 8.0 are also supported.

3. To configure ASP.NET 4.0 for the XBOUND website, open the **Internet Information Services** dialog.
4. Expand **Sites** and select **xboundWebService**.
5. Under **ASP.NET**, double-click **Connection Strings**.
6. Double-click **xbound.Server.xboundDB**.
7. *If you are using a Microsoft SQL Server database:*

- a) In the **Edit connection string** dialog, select **SQL Server** for SQL Server authentication.



- b) Enter the host name of the XBOUND database server and database.
- c) Select **Specify credentials** and click **Set**.
- d) In the **Specify credentials** dialog, specify the user name and password (twice) and click **OK**.
- e) Click **OK** to close the **Edit connection string** dialog.



*If you are using an Oracle database:*

- a) Ensure that the Oracle client software for your Oracle system has been installed.
- b) Click **Xbound.Server.ConnectionType** in the lower table and then **Edit**.
- c) Replace 0 with 1 in the **Value** field and click **OK**.
- d) Enter the connection string to the XBOUND database in the **Connection parameter** field.

In the simplest case (integrated Windows security), this has the following format:

```
"Data Source=orcl;Integrated Security=yes;"
```

It replaces `orcl` with the Oracle service name you specified when you installed the database server.

If the integrated Windows security is not used (though we recommend that you use it), the connection string has this format:

```
"Data Source=orcl; User Id=xbound; Password=xboundpwd;
Integrated Security=no;"
```

Here you replace the values for the user name and password.

- e) Click **OK**.

*If you are using a DB/2 database:*

- a) Ensure that the DB/2 client software has been installed.
- b) Click **Xbound.Server.ConnectionType** in the lower table and then **Edit**.
- c) Replace 0 with 2 in the **Value** field and click **OK**.
- d) Enter the connection string to the XBOUND database in the **Connection parameter** field. If you created the database object in a schema that differs from XBOUND's schema, specify the schema using `CurrentSchema` in the connection string.
- e) Click **OK**.

8. Click **Application**.

9. Enter the user name and the password of the [XBOUND user](#).

⚠ **Warning:** The password is saved as plain text in the `web.Config` file. Ensure that the file system path to the `xboundWebService` directory is not shared on the network and that only administrators can log in interactively to the XBOUND Application Server.

10. Click **OK**.

11. Test the configuration by entering <http://localhost:5555/Mobile.asmx> in the local browser. This should display the **WebMobile Web Service** website and a list of operations.

## Assigning an XBOUND application server

Before you can initialize the XBOUND database using the XBOUND Process Designer, you must assign an application server to XBOUND applications. Use this procedure:

1. Log in to the workstation with the XBOUND applications.
2. Start XBOUND Management Center by selecting **Start > All Programs > ReadSoft > XBOUND > XBOUND Management Center**.
3. Load the Common Configuration Manager plug-in.
4. Select **Enterprise Common Properties** and click the **Binding** tab.
5. If you are using the XBOUND Platform Service, select **Native** and enter the base URL `tcp://host:4444` as server name, replacing `host` with the application server's host name.

If you are using the WebService application server, select **WebService** and enter the base URL `http://host/xboundWebService` as server name, replacing `host` with the application server's host name.

6. Click the **Service Logging** tab and repeat the configuration described above. Select **Native** and specify port 4445. Activate service logging and select your log level.
7. Select **File > Save All** and close the configuration program.
8. Restart the XBOUND Platform Service. (There are instructions on page 66.)

## Initializing the XBOUND platform

The below procedure does three things:

- It adds activities to the **Activities** area (the right pane) in the Process Designer. (Activities can of course be added manually, as well, using the procedure described on page 53.)
- It makes XBOUND collectors available in the **Tools > Collectors** menu in the Process Designer. (Collectors can of course be added manually, as well – see *XBOUND Help* topic “Adding a collector”.)
- It starts the Security Wizard, where you can (optionally) set up role-based privileges.

Follow these steps:

1. Start XBOUND Management Center by selecting **Start > All Programs > ReadSoft > XBOUND > XBOUND Management Center**.
2. Load the Process Designer plug-in.
3. Select **Tools > Initialize Platform**.
4. Click the **XML file** folder icon next to the edit box.
5. Select **xboundInitialize.xml** and click **Open**.
6. Click **OK**. A confirmation message is displayed.
7. Click **OK** again.
8. The Security Wizard starts automatically. Here you can (optionally) set up role-based privileges. If needed, press **F1** for help.
9. Close the XBOUND Management Center.

## Initializing RCF data

If you installed ReadSoft Capture Framework, use this procedure to “migrate” the database for ReadSoft Capture Framework. Among other things, this procedure adds the RCF activities to the **Activities** area (the right pane) in the Process Designer.

1. Open the XBOUND installation folder.
2. In the `xboundOcfMigration.cmd` file, adjust the connection parameter.
3. Ensure that all processes are checked in, and exit XBOUND Management Center.

4. Execute the `xboundOcfMigration.cmd` file. After it runs, you should see a message like “Migration successfully completed.”

If execution is not successful, adjust the connection parameter and try again.

5. After successful execution, restart XBOUND Management Center and add the `XBOUNDPlugInOcfBusinessLogic` plug-in.
6. In XBOUND Management Center, open the Business Logic Designer.
7. Register the `xboundOcfValidationBase` library. (If you need assistance, press **F1** in the Business Logic Designer.)

## Setting up licensing

Licenses are necessary for using XBOUND in production. They are managed by the XBOUND license server using a separate database. Use the below procedures to install the license server and apply the licenses.

### Installing the license server

1. Complete the XBOUND software setup as described on page 12, selecting **XBOUND License Service** to install.
2. Start the XBOUND License Service. (There are instructions on page 66.)

### Applying a preliminary license file

**Warning:** Do not apply the license before the platform and database are initialized as described on pages 35–36.

A preliminary license file is included with the delivery of XBOUND. It is valid for 30 days from the date of issue. This enables you to immediately start production and gather the information that ReadSoft needs to create the permanent license file (see “Requesting a permanent license file” on page 37).

Use this procedure to import the preliminary license file:

1. Start XBOUND Management Center by selecting **Start > All Programs > ReadSoft > XBOUND > XBOUND Management Center**.
2. Load the License Information plug-in.
3. Click **Add License**.

4. In the **License Server Address** box, enter the base URL to the license server in this format, replacing `host` with the license server's host name: `tcp://host:3333`

You can enter base URLs to more than one license servers separated by the pipe symbol (|) in order to provide a backup. Example: `tcp://host1:3333 | tcp://host2:3333`  
In this case, the license server on `host1` is tried first. If it fails, the license server on `host2` is used.

5. In **XBOUND License File**, select the preliminary license file that you received from ReadSoft and click **OK**.
6. A dialog is displayed where you enter details for connecting to the license database. Enter all necessary data. Then click **Check connection** to ensure that connection succeeds. If so, click **OK**. Otherwise, check the details that you specified and try again.

**Note:** If you are using Windows authentication (recommended), be aware that this connection test is done from your Windows session. Make sure that the user who runs the XBOUND License Service is authorized to access the database.

7. Click **OK**. A message is displayed, saying that the license file was loaded successfully.

## Requesting a permanent license file

The preliminary license file is valid for 30 days after its date of issue. Check the expiration date by selecting **Help > License information** in the XBOUND Process Designer.

**The permanent license file must be loaded by the expiry date to avoid interrupting production. Therefore, request a permanent license file from ReadSoft without delay.**

Request your license file as follows:

1. Start XBOUND Management Center by selecting **Start > All Programs > ReadSoft > XBOUND > XBOUND Management Center**.
2. Load the License Information plug-in.
3. Click **Save License Information**.
4. Save the file `xboundLicenseInformation.xml`.
5. Email the `xboundLicenseInformation.xml` file to ReadSoft.

## Loading the permanent license file

⚠ **Warning:** Do not apply the license before the platform and database are initialized as described on pages 35–36

Load the permanent license file as soon as you receive it. Use this procedure:

1. Start XBOUND Management Center by selecting **Start > All Programs > ReadSoft > XBOUND > XBOUND Management Center**.
2. Load the License Information plug-in.
3. Click **Add License**.
4. In **XBOUND License File**, select the permanent license file that you received and click **OK**.
5. Check the license by selecting **Help > License information** in the XBOUND Process Designer.

## Installing XBOUND clients

The server-side XBOUND components are now installed and ready to process requests from *XBOUND clients*, which are services and applications that process documents in the XBOUND system. The following sections describe how to install these services and applications.

### Installing XBOUND services

The XBOUND services manage all non-interactive processes within XBOUND. Use this procedure to install them:

1. Complete the XBOUND software setup as described on page 12, selecting for installation all XBOUND services and all subcomponents *except* Platform Service and License Service.
2. Assign an application server. The procedure is the same as on the administration workstation (see page 34).
3. Start the following services. (There are instructions on page 66.)
  - XBOUND Collect Service
  - XBOUND Activities
  - XBOUND System Agent Service

If any of these services does not start because of an incorrect login, open the service in the service manager and reenter the [XBOUND user account](#) data. Then restart the services.

### If one of the services stops immediately

1. Move the XBOUND user to the group of the application server's local administrators. (In the case of the Collect Service, it is enough to move the XBOUND user to the group of main users.)
2. Restart the service.

### Installing an XBOUND workstation

The interactive processes with documents are done at XBOUND workstations. Install each XBOUND workstation as follows:

1. Run the XBOUND software setup as described in “Installing XBOUND” on page 12. Select **XBOUND Clients** and all subcomponents *except* XBOUND Process Designer and XBOUND Process Monitor Client.
2. Assign an application server. The procedure is the same as on the administration workstation (see page 34).

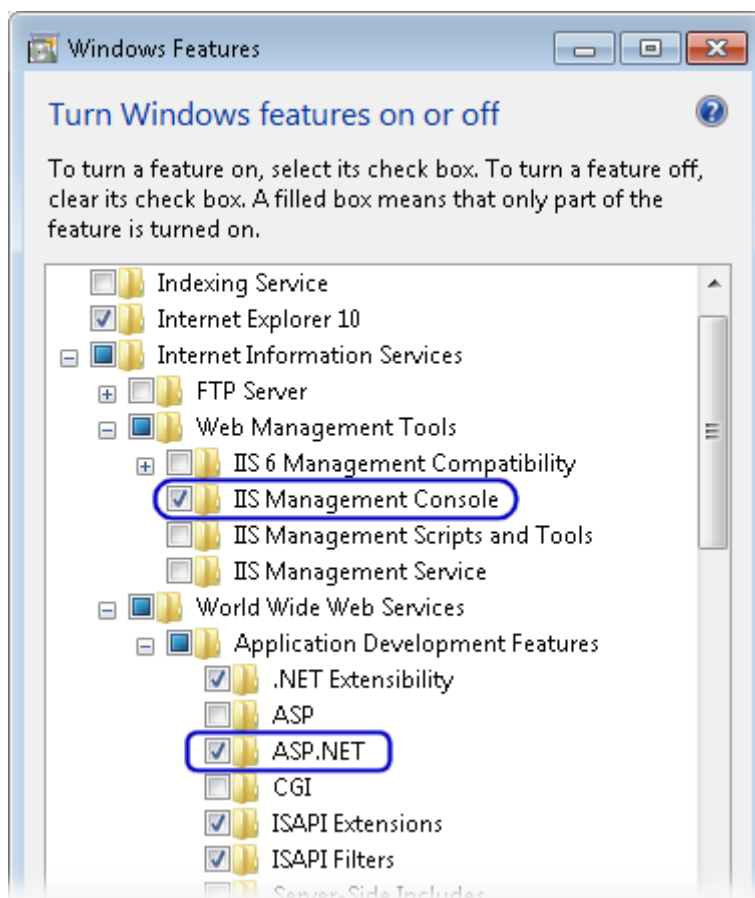
# Post-installation tasks

## Setting up XBOUND for Mobile Rescan

The following procedures are needed if Mobile Rescan is to be used with XBOUND. The instructions assume a Microsoft Windows 7 operating system. The actual steps vary according to the operating system.

### Activate and configure IIS

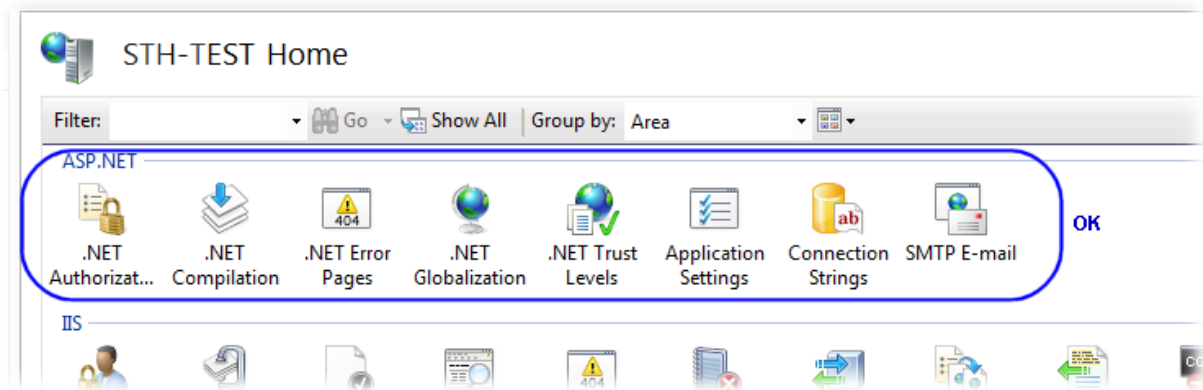
1. Select **Control Panel > All Programs > Windows Features > Turn Windows Features on or off**.
2. Expand **Internet Information Services > Web Management Tools** and select **IIS Management Console**.



3. Expand **World Wide Web Services > Application Development Features** and select **ASP.NET**.



4. Click **OK** to close the **Windows Features** dialog.
5. Select **Control Panel > System and Security > Administrative Tools > Internet Information Services (IIS) Manager**.
6. In the **Internet Information Services (IIS) Manager** dialog, ensure that there is an **ASP.NET** section:



7. In the right panel (under **Actions**), click **Change .NET Framework Version**.
8. In the dialog that is displayed, select **v4.0.30319**.
9. Click **OK** to close the **Change .NET Framework Version** dialog. (Keep the IIS Manager open for upcoming steps.)
10. Open a command prompt and run the following commands to register .NET Framework for IIS:


```
cd C:\Windows\Microsoft.NET\Framework\v4.0.30319

aspnet_regiis.exe -i
```

11. After completion of the ASP.NET installation, close the command prompt.

## Set up xboundWebService as an application in IIS

1. If you are performing these steps on a 64-bit computer:
  - a) In the **Internet Information Services Manager (IIS)** dialog, in the right panel (under **Actions**), click **View Application Pools**.
  - b) Right-click **ASP.NET v4.0** and select **Advanced Settings**.
  - c) Set **Enable 32-Bit Applications** to **True**.
  - d) Click **OK** to close the dialog.


2. Using Windows Explorer, copy the `xboundWebService` folder from the XBOUND installation path (normally `C:\Program Files\ReadSoft\XBOUND`) to `C:\inetpub\wwwroot`.
3. In the **Internet Information Services Manager (IIS)** dialog, in the left panel (under **Connections**), expand **Sites**.
4. Right-click **xboundWebService** and select **Convert to Application**. There is nothing more to do in the dialog that is displayed; click **OK** to close it.  
  
(If `xboundWebService` is already converted to an application, the command is not visible, and you can skip this step.)
5. Right-click **xboundWebService** and select **Manage Application > Advanced Settings** (or **Manage Web Site > Advanced Settings**).
6. Select **Application Pool** and click the  button to open the **Select Application Pool** dialog.
7. Select **ASP.NET v4.0** and click **OK**.
8. Select **xboundWebService** in the left pane (under **Connections**).
9. In the middle pane, double-click **Connection Strings** in the **ASP.NET** section.
10. Double-click **Xbound.Server.XboundDB** to open the **Edit Connection String** dialog.
11. Select **SQL Server** and specify the location and name of the main XBOUND database. (If you are using an Oracle or DB2 database, this step and the next one are a little different.)
12. If the database is set up to use Windows Authentication, select **Windows Integrated Security**. Otherwise, select **Specify credentials**, click **Set**, and specify the user name and password.
13. Test the function by using a local browser to visit this address:

<http://localhost/xboundWebService/Mobile.asmx>

The **WebMobile** page should display a list of operators.

14. Test the function from another computer by visiting this address (replacing *ComputerName* with the name of the computer where you configured Mobile Rescan):

<http://ComputerName/xboundWebService/Mobile.asmx>

 **Note:** The firewall on the computer where the web service is running must be correctly configured. (Http must be permitted.)

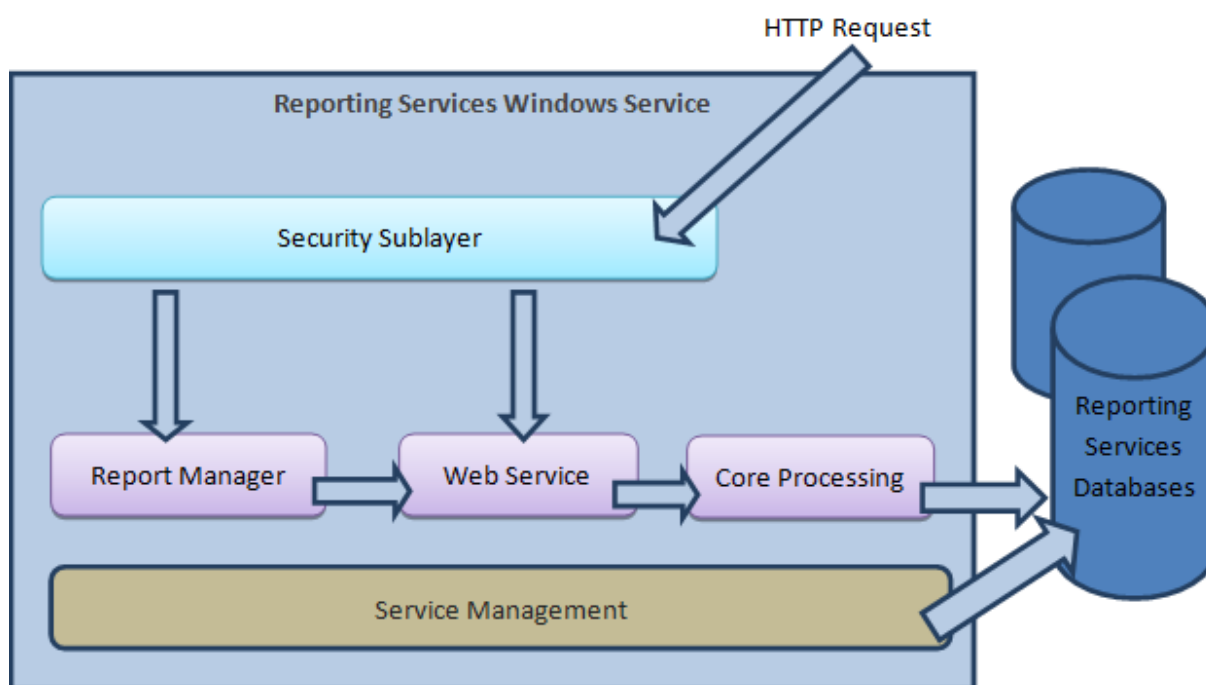
15. If HTTPS is to be used, install a certificate and configure IIS to use the certificate.

## Setting up the report server for viewing SSRS-based reports in XBOUND

*Reports* is one of the XBOUND Report Manager's two sub-programs. Based on Microsoft SQL Server Reporting Services (SSRS), it is directly linked to the report server and displays reports from the specified folder.

If you want to view these reports in XBOUND, use the below setup procedure described further below. SSRS is required.

### Schematic of the Reporting Services Windows service



The **security sublayer** is responsible for determining the requestor's identity and whether the user has the required rights for the request to be fulfilled.

All requests sent via HTTP are targeted to the **Report Manager** and the **Web Service** applications. Both applications are hosted from within the Reporting Services Windows service.

Reporting Services' **core processing** features – scheduling, subscription management, delivery and reporting processing – are performed by a collection of components hosted within the Reporting Services service.

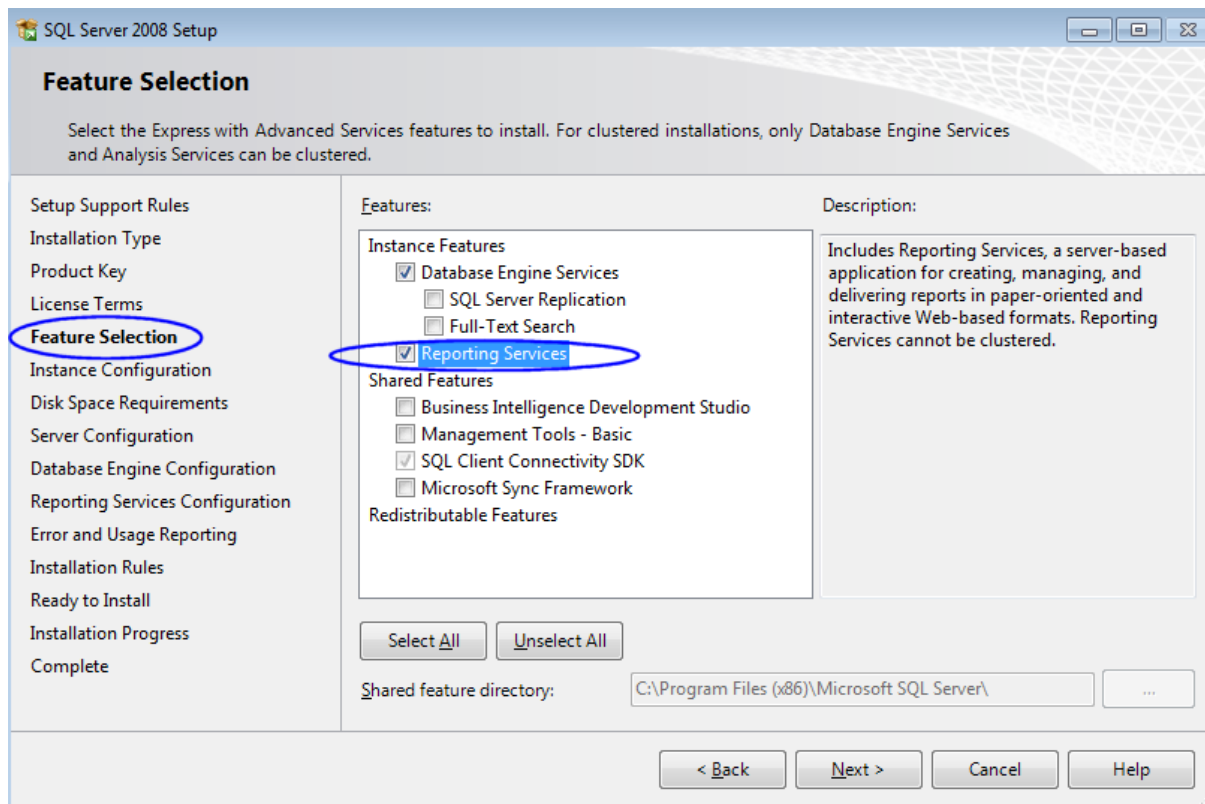
**Service Management** ensures that resources are available and that the service works properly.

## Setting up Microsoft SQL Server

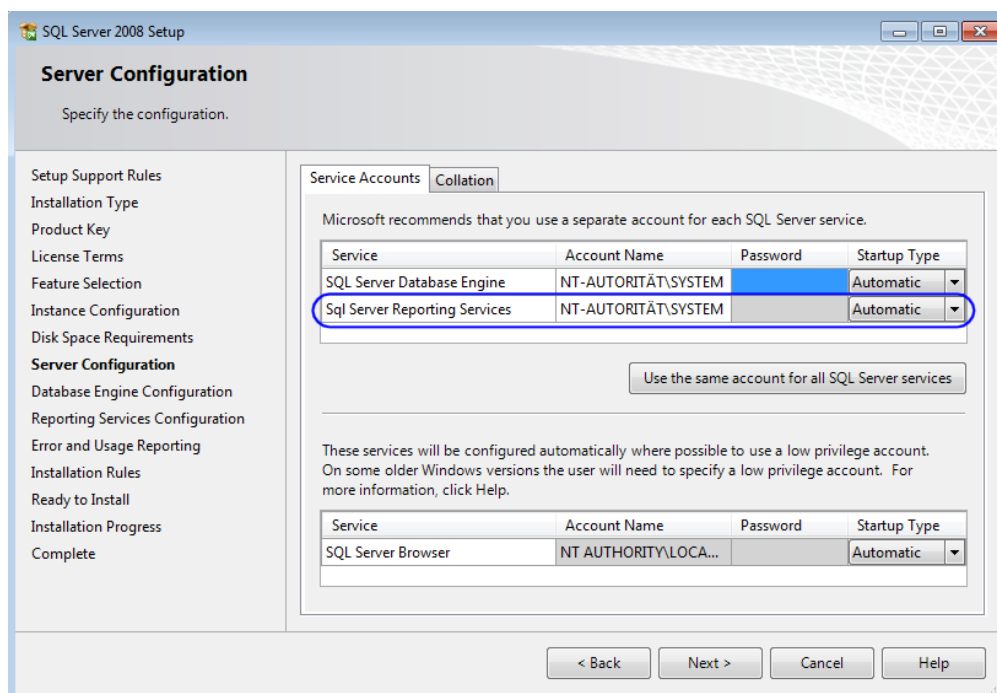
Reporting Services is included in all versions of Microsoft SQL Server version 2005 and later. If you use the Express Edition, select the version with Advanced Services.

Install SQL Server according to the instructions from Microsoft, also taking into consideration the following details:

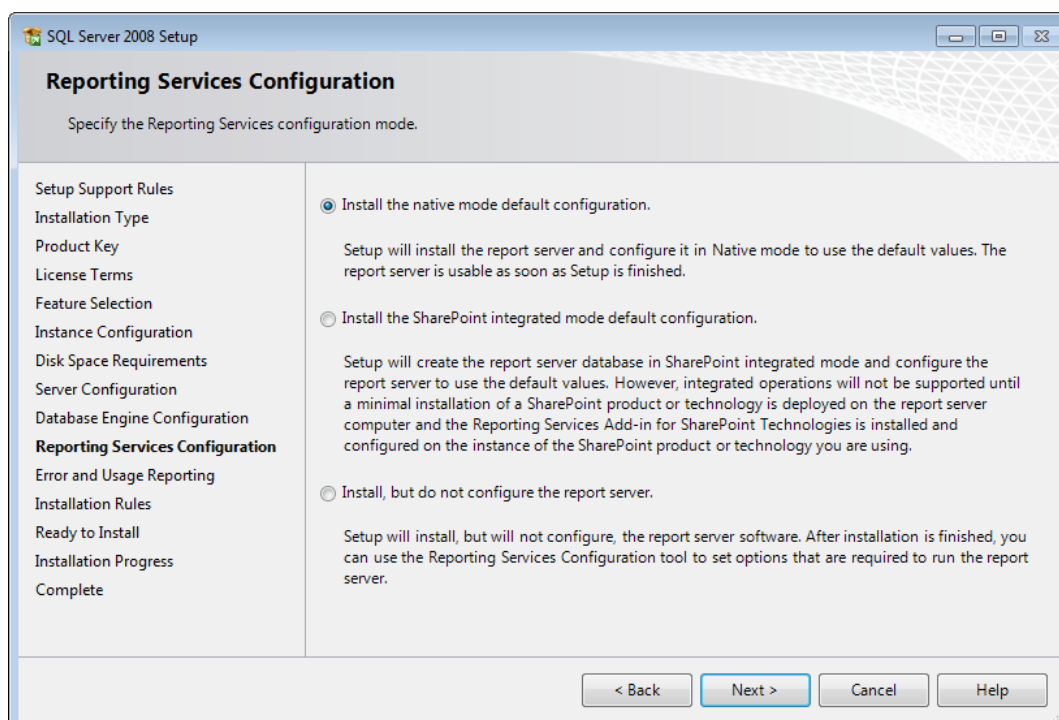
- Be sure to select **Reporting Services** in **Feature Selection**:



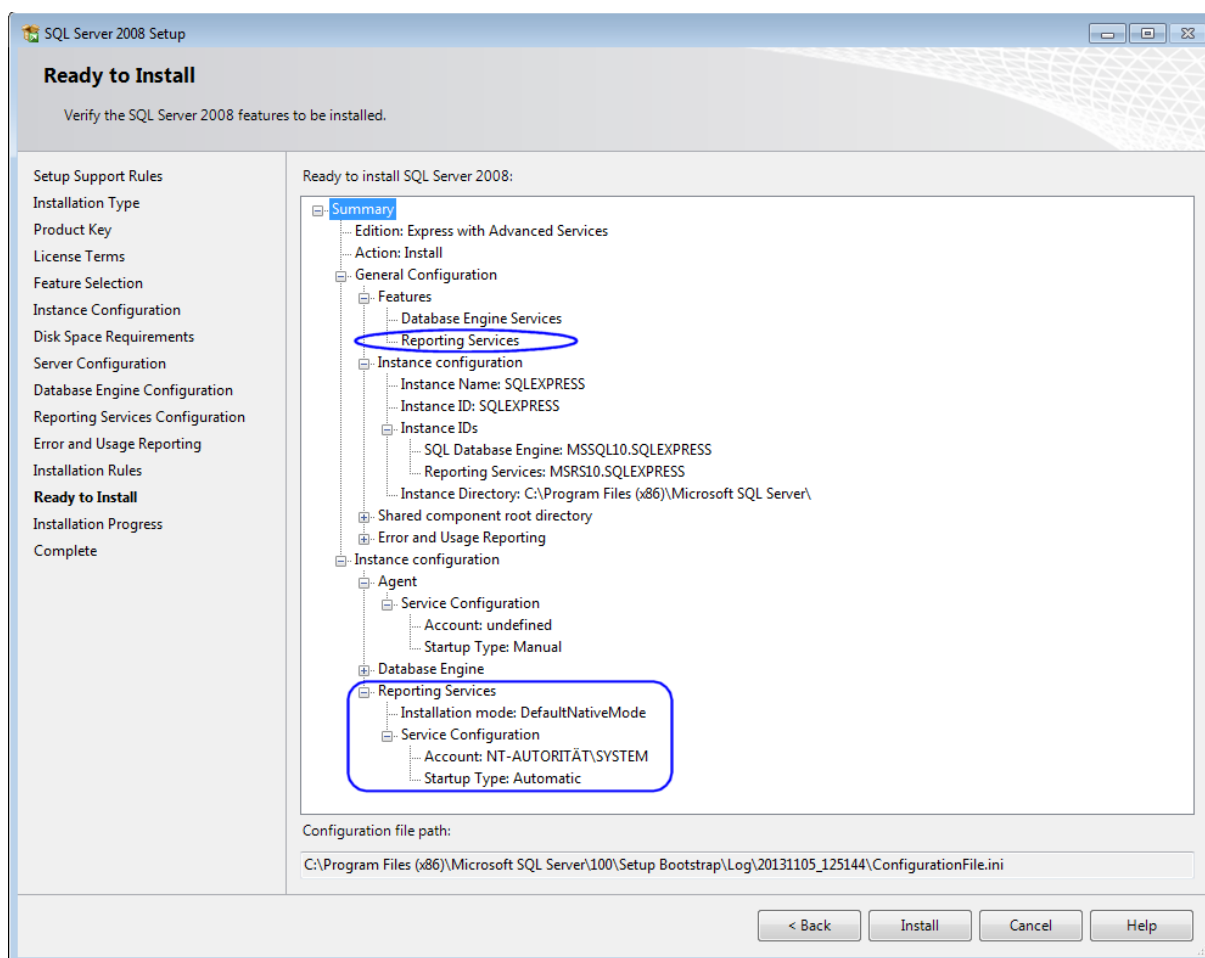
- Configure the service accounts to be used for each service to be installed. It is generally recommended that you use the local service or (generated) network service accounts for the **SQL Server Database Engine** and **SQL Server Reporting Services** Windows service. If needed, you can change the service account after installation.



- In **Reporting Services Configuration** you can select from three installation options. For most basic installations, the best choice is **Install the native mode default configuration**.



- In **Ready to Install**, review the selected options carefully:



## About SSRS Report Manager

SSRS Report Manager is a web-based report access and management tool that allows you to:

- View, search, and subscribe to reports
- Create and manage folders, linked reports, report history, schedules, data source connections, and subscriptions
- Set properties and report parameters
- Manage role definitions and assignments that control user access to reports and folders

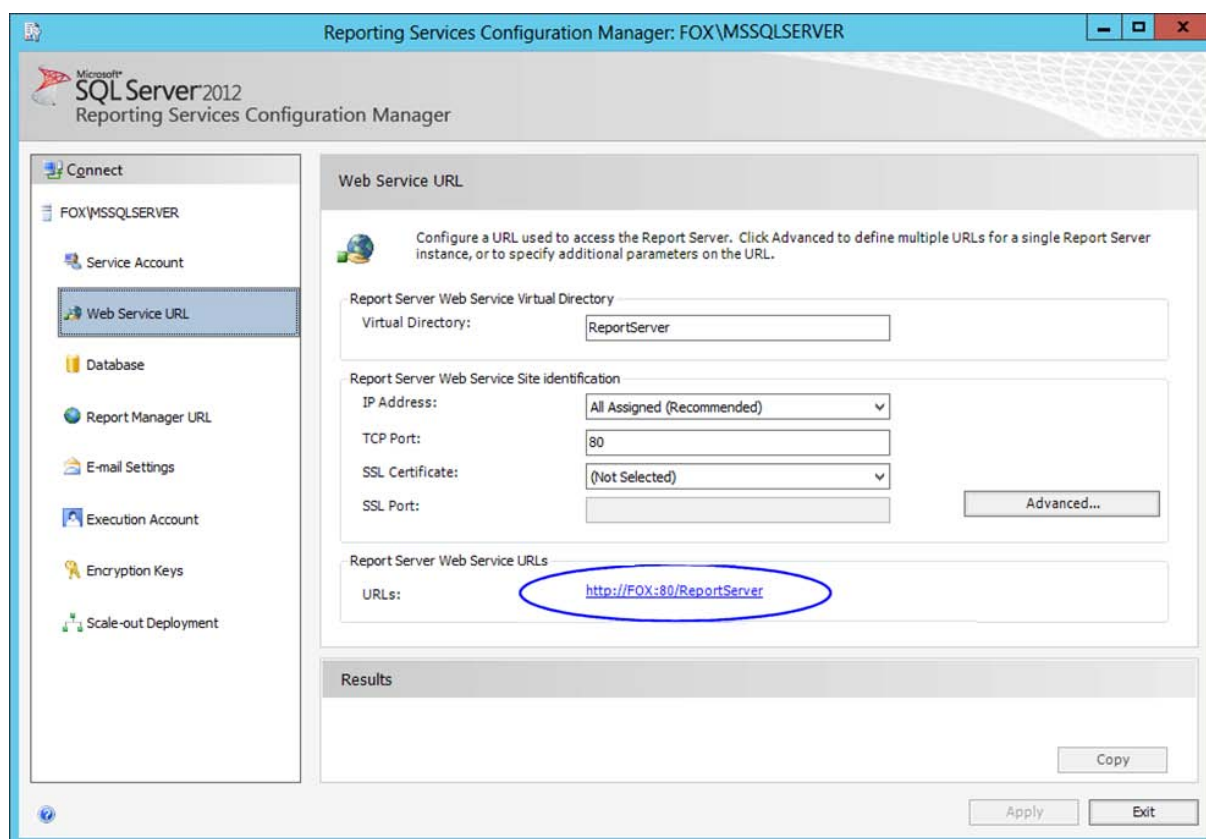
SSRS Report Manager provides access to your report server via web pages and controls. There are pages for viewing items, setting properties, and creating and modifying subscriptions, schedules, shared data sources, and roles. You access items that are stored in a report server by navigating the folder hierarchy and clicking items to view or update.

Depending on how you configure role assignments, viewing and navigation operations can be exposed to users who have minimal access to a report server. Management features are available to users who have appropriate permissions.

- Tip:** You can also perform management operations using Microsoft SQL Server Management Studio.

## Setup procedure

1. Start SSRS Configuration Manager.
2. The server name and instance of the SSRS server are displayed in the **Reporting Services Configuration Connection** dialog. You can change them if they are not correct for some reason.
3. Click **Connect**.
4. Click **Web Service URL** in the navigation pane (on the left) of the Configuration Manager.



5. In SSRS, URLs are used to access the Report Server Web Service and [SSRS Report Manager](#). Before you can use either application, you must configure at least one URL each for the web service and SSRS Report Manager.



If you installed the default configuration, URLs were created automatically using the default values. If not, you must configure a URL for the Report Server Web Service by specifying all of the fields in the above dialog. For more information how to configure a URL, please see <http://technet.microsoft.com/en-us/library/bb630447.aspx>.

## Creating a role assignment

In SSRS, *role assignments* determine access to stored items and to the report server itself. A role assignment consists of:

- A securable item for which you want to control access. Examples of securable items include folders, reports, and resources.
- A user or group account that can be authenticated by Windows security or another authentication mechanism.
- Role definitions that define a set of tasks.

Role assignments are inherited within the folder hierarchy. The role assignment that is defined for a folder is automatically inherited by all reports, shared data sources, resources, and subfolders contained within that folder.

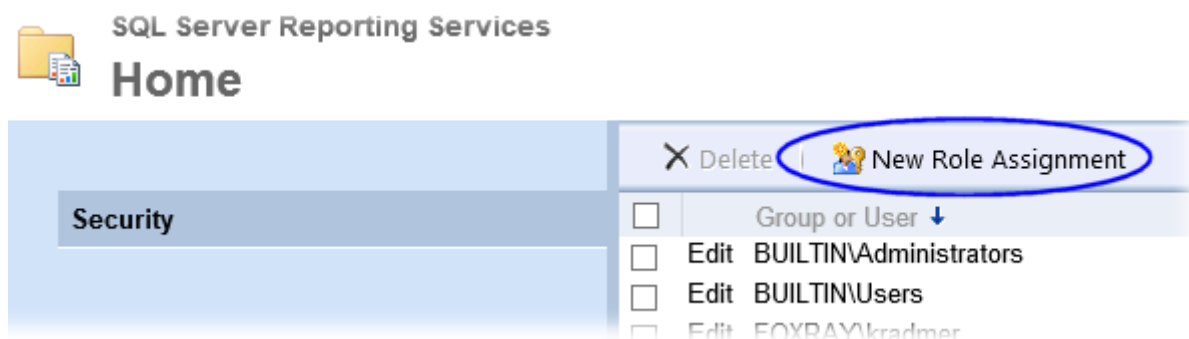
Each user who requires access to a report server must have a role assignment that defines the level of access. You can create role assignments at the root node, or on a specific report, model, folder, resource, or shared data source.

SSRS security is enforced through role assignments that you apply to items. A role assignment matches a group or user to a role definition, where each role definition identifies the tasks that groups or users can perform with regards to a specific item.

1. Using SSRS Configuration Manager, click **Report Manager URL** in the navigation pane (on the left).
2. If needed, configure or modify the URL used to access SSRS Report Manager. By default, the prefix, IP address, and port of the Report Server Web Service URL are inherited.
3. Click the URL to access [SSRS Report Manager](#), which opens in the default browser. (You can also access the Report Manager by typing its URL in the address bar of a browser.)
4. Click **Folder Settings**.



5. Click **New Role Assignment**.



6. To perform an action against a Reporting Services item, you must have permission to do so. Reporting Services supports a fixed set of permissions associated with each type of item. To simplify things, Reporting Services organizes these permissions into a more condensed set of item-level tasks:

- Browser (for running reports and navigating through the folder structure)
- Content Manager (for defining a structure for storing reports and other items, setting security at the item level, and viewing and managing the items stored by the server)
- Report Builder (for building and editing reports in Report Builder)
- Publisher (for publishing content to a report server)
- My Reports (for build reports for personal use or storing reports in a user-owned folder)

Create the role assignments that suit your organization.

Role	Description
Browser	May view folders, reports and subscribe to reports.
Content Manager	May manage content in the Report Server. This includes folders, reports and resources.
My Reports	May publish reports and linked reports; manage folders, reports and resources in a users My Reports folder.
Publisher	May publish reports and linked reports to the Report Server.
Report Builder	May view report definitions.

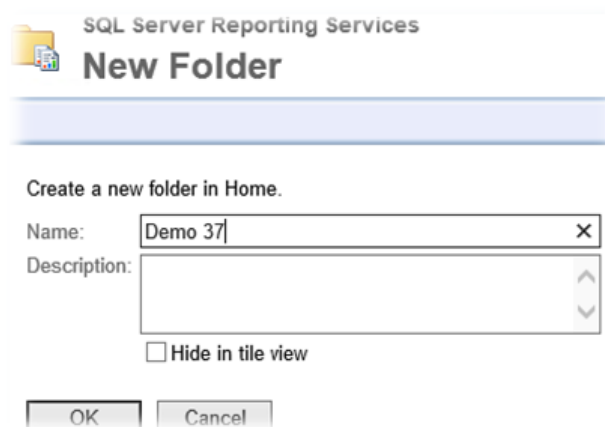
## Uploading reports to a report server

Use this procedure to add reports (.rdl files) to the report server:

1. Using SSRS Configuration Manager, click **Report Manager URL** in the navigation pane (on the left). Then click the URL.

Alternatively, access the Report Manager by typing its URL in the address bar of a browser.

2. Most Reporting Services items are housed within a folder hierarchy. This provides a simple, familiar structure for organizing content. To create a folder for the reports, click **New Folder**. Then type a folder name and click **OK**.



3. Click **Upload File**.
4. Type a new name for the item, for example Backlog Report or Processing Report.
5. Click **Browse** and navigate to the location of the reports that are provided with XBOUND. By default, they are located in this folder:

C:\Program Files (x86)\ReadSoft\xbound\Reports

6. Select the desired report and click **Open**.

Home &gt; Demo 37



SQL Server Reporting Services

## Upload File

Upload a report (.rdl), model (.smdl), shared dataset (.rsd), report part (.rsc), or other resource into Demo 37.

File to upload: C:\Program Files (x86)\ReadSof Browse...

Name: Backlog Report

☐ Overwrite item if it exists

OK

Cancel

7. Click **OK**.

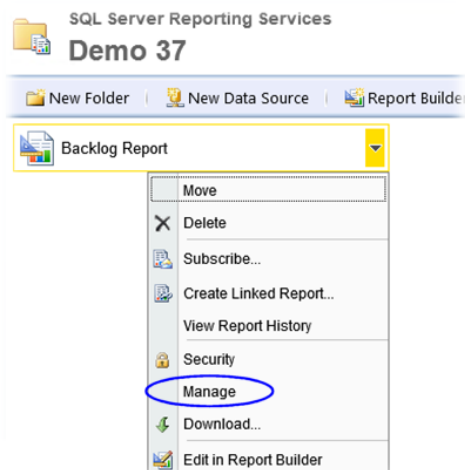
## Adjusting report properties

After a report is published, check the properties that specify:

- The text that appears in the XBOUND Report Manager user interface.
- How users access the report.
- How the report server connects to external data sources. (The connection string is important because it establishes the initial connection to an external data source. You must change the connection string if you move a data source to another computer, or if you created reports using test data but you want to deploy the reports with a production database. See screenshot on page 52.)
- Whether the report runs on demand or on a schedule.

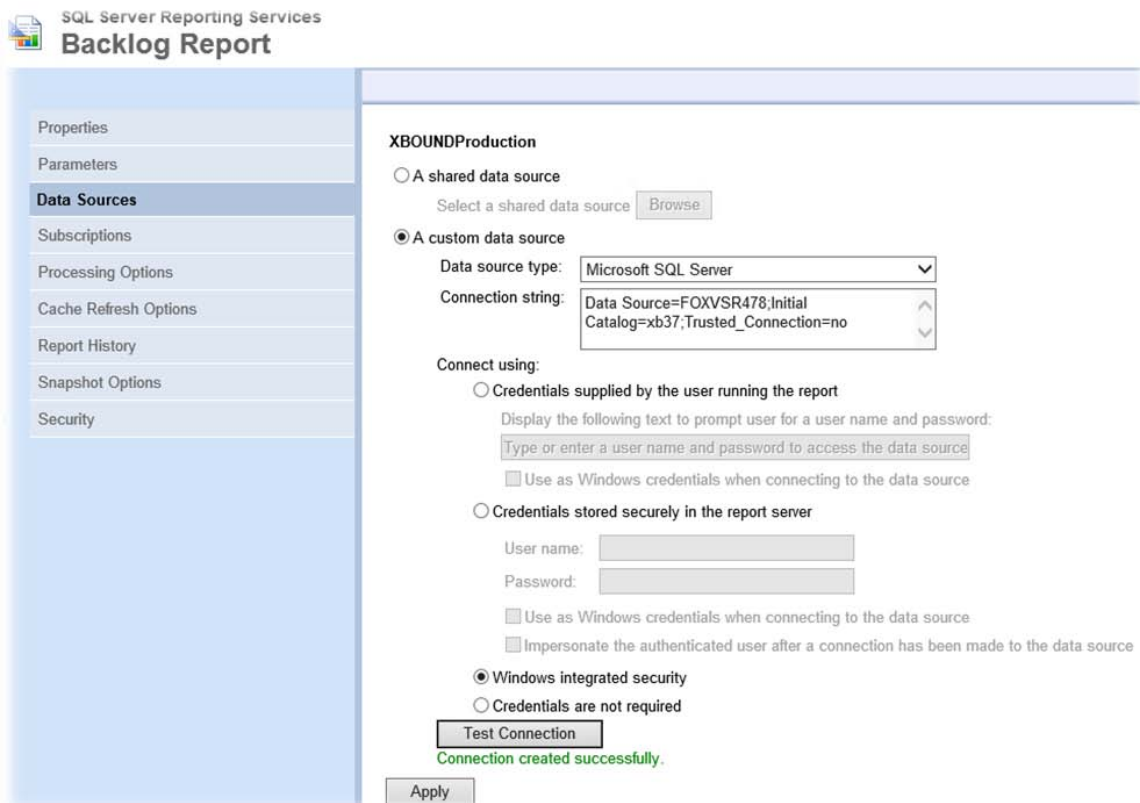
Use this procedure:

1. Still using SSRS Report Manager, click the drop-down arrow of a report and select **Manage**.



2. Adjust the properties as desired.

For example, if needed, adjust how the report connects to its data source: Click **Data Sources** in the left pane and define how the current report connects to an external data source.



## Adding reports in XBOUND

Before SSRS-based reports can be viewed for the first time, you must add them to XBOUND using the XBOUND Reports plug-in. Please refer to the *XBOUND Help* topic “Setting up a report to display in the Reports plug-in” for instructions.

## ReadSoft Capture Components (RCC)

### Adding activities to the Process Designer

If you need them, these RCC activities must be added manually to the Process Designer:

- Knowledge Processing – `xBoundActivityKSFeedback.dll`
  - ❗ Knowledge Processing must be added first. The others can be added in any order.
- Classification – `xBoundActivityDU.dll`
- Inspection – `xboundActInspectClient.dll`
- Interpretation – `xboundActExtract.dll`
- (The Import Solution activity will be added in a different way – see the next section).

Use the this procedure:

1. Using the XBOUND Management Center, open a console containing the Process Designer plug-in.
2. In the Process Designer, select **File > New Activity**.
3. In the **Choose Activity Group** dialog, select an activity group to add the new activity to. (The far right pane of the Process Designer is divided into different activity groups.)
4. In the **New Feature** dialog, after **Path to DLL**, select the path to the DLL file containing the activity. Then the system fills in the name, version, and class name. Adjust the other settings if desired.
5. Click **OK**.
6. Assign the activity to at least one instance of the XBOUND Activities Service.

## Adding the Import Solution activity to the XBOUND global parameter set

1. Using the XBOUND Process Designer, select **Tools > Global Parameter Sets**.
2. Right-click in the left pane and select **New Activity**.
3. In the dialog that is displayed, select `xBoundActDOXImport.dll` and click **Open**.

This registers the Import Solution activity in XBOUND. It can now be used in all clients and processes.

❗ At this point, close all programs and reboot the computer.

## Capture Components Administration

### User authorization

Capture Components Administration has a user authorization system (login system) that is disabled by default. The default user **Administrator**, which has no password, should be deleted after you set up your own users. Adjust user management settings according to instructions in *Capture Components Administration Help*.

### Additional setup

The *Capture Components Administration Help* topic “Setting up the system after installation” describes the necessary steps.

- ❗ **Tip:** To view online help at any time while using Capture Components Administration, press **F1**. You can also access help by selecting **Start menu > All Programs > ReadSoft > Capture Components > Admin Help**.

# Knowledge Processing

Follow the instructions below if your XBOUND system includes Knowledge Processing (described on page 6).

## Starting the Knowledge Processing Service

Initially, you must start “ReadSoft Knowledge Processing Service” on the server where you installed it. (See instructions on page 66). After that, the service should restart automatically if the PC is rebooted.

❗ **Important:** As stated under “Prerequisites” on page 8, the ReadSoft Knowledge Processing service must run on a 64-bit operating system.

## Enabling Knowledge Processing

Activate Knowledge Processing in the **Global policies > Persistence policy** dialog. Please refer to the *Capture Components Administration Help* topic “Using Knowledge Processing to aid extraction.”

# Upgrading from Version 3.x

---

The current release allows an upgrade from XBOUND version 3.0, 3.1, 3.5, or 3.6. Older XBOUND installations must be updated to one of the those versions before upgrading to the current version.

The upgrade process is divided into these procedures, which are described in the sections that follow:

1. Preparing to upgrade.
2. Stopping the production process.
3. Backing up the databases
4. Installing the new software
5. Upgrading the databases
6. Updating an ABBYY installation
7. Migrating the database contents.
8. Continuing the production process.

## Preparing to upgrade

If you run XBOUND in production, plan the upgrade carefully. It is important to note the following:

- Before the upgrade is scheduled, all processes run by XBOUND should be thoroughly tested in a test system of the new version to resolve possible questions or problems before upgrading. Budget and schedule these tests sufficiently.
- Production must be stopped before the upgrade begins. Plan the production stop and give all XBOUND users sufficient notice. Do not forget remote users.
- A complete database backup should be done before upgrading. Ensure that all media for saving and recovery (storage medium, backup tools, etc.) are kept ready.

## If upgrading RCC

Recommended: Save a copy of the `ReadSoft.Du.KnowledgeStore.Service.exe.config` file in your existing installation. By default, the file is located in `C:\Program Files (x86)\ReadSoft\Capture Components`.

- ❗ The above file is overwritten during the upgrade process. Therefore, do not skip that step unless you know that you are using a default version of the file.

If upgrading a previous version of RCC and Capture Components Administration to version 1.1.1, you will need to know the names, location, passwords, and type of authentication of *all of the databases used by your system*:

### Required databases

- XBOUND database
- License database
- Logging database
- RCC configuration database
- RCC production database

### Optional databases

- Statistics database
- Audit trail database
- Knowledge Processing database



## Stopping the production process

Before upgrading, production must be stopped:

1. Give all users sufficient notice about stopping the production process.
2. If RCC is included in the upgrade, process or delete all documents in your XBOUND system.
3. Recommended if RCC is included in the upgrade: Back up the installed XBOUND processes and Capture Components solutions.
4. Exit all XBOUND clients, application servers, and related programs including Capture Components applications and Capture Components Administration.
5. Stop all XBOUND-related Windows services. (There are instructions on page 66.) Do not forget the ReadSoft Knowledge Processing Service and the XBOUND WebService, if used.

## If upgrading from RCC 1.1

1. Using Windows **Control Panel > Add or Remove Programs**, uninstall Capture Components Administration.
2. Uninstall Capture Components Administration.

## Backing up the databases

- ⚠ **Back up all XBOUND-related databases, including the Knowledge Processing database, if used.**

## Installing the new software

Using the setup program, update the software on all computers where the old XBOUND version was running. Follow the on-screen instructions.

Then, if it was not done in advance, set up licensing (see “Setting up licensing” on page 36).

# Upgrading the databases

## Upgrading the XBOUND database (main database)

- i No database upgrade is necessary if you are upgrading XBOUND from version 3.7 to version 3.7.1 – except if you want to work with reporting (see page 59).
- ! **Important:** In order to upgrade an IBM DB2 database from version 3.x to 3.7 or 3.7.1, both the main database and the statistics database must have a page size greater than 4 KB. If the page size is smaller, no update is possible. (Note that the page size of an existing DB2 database cannot be changed, as IBM does not support this procedure.)

Select and execute one of the following SQL scripts on your XBOUND database, depending on the database supplier and previous XBOUND version. (Upgrading from 2.0 to 3.7.1 is not supported.) The scripts update tables, indices and stored procedures corresponding to the new software. They are found in C:\Program Files\ReadSoft\xbound\Sql.

To do this:	Use this script:
Upgrade from 3.6 on SQL Server	XBOUND_update_3.6.0.0_3.7.0.0.sql
Upgrade from 3.6 on Oracle	XBOUND_update_oracle_3.6.0.0_3.7.0.0.sql
Upgrade from 3.6 on DB/2	XBOUND_update_db2_3.6.0.0_3.7.0.0.sql
Upgrade from 3.5 on SQL Server	XBOUND_update_3.5.0.0_3.7.0.0.sql
Upgrade from 3.5 on Oracle	XBOUND_update_oracle_3.5.0.0_3.7.0.0.sql
Upgrade from 3.5 on DB/2	XBOUND_update_db2_3.5.0.0_3.7.0.0.sql
Upgrade from 3.1 on SQL Server	XBOUND_update_3.1.0.0_3.7.0.0.sql
Upgrade from 3.1 on Oracle	XBOUND_update_oracle_3.1.0.0_3.7.0.0.sql
Upgrade from 3.1 on DB/2	XBOUND_update_db2_3.1.0.0_3.7.0.0.sql
Upgrade from 3.0 on SQL Server	XBOUND_update_3.0.0.1_3.7.0.0.sql
Upgrade from 3.0 on Oracle	XBOUND_update_oracle_3.0.0.1_3.7.0.0.sql
Upgrade from 3.0 on DB/2	XBOUND_update_db2_3.0.0.1_3.7.0.0.sql

- ❗ **Important:** If you have distributed tablespaces on Oracle, you must adjust the script accordingly before use. Change the `TABLESPACE_DATA` and `TABLESPACE_IND` variables on lines 2 and 3 of the script from `USERS` to your new tablespace names.

## Upgrading databases for reporting

If you want to work with reporting and are upgrading from XBOUND 3.7 to XBOUND 3.7.1, you must run one of the following scripts *on both your XBOUND database and your statistics database*. (This is not necessary when updating from any other XBOUND version to 3.7.1; only when upgrading from XBOUND 3.7.)

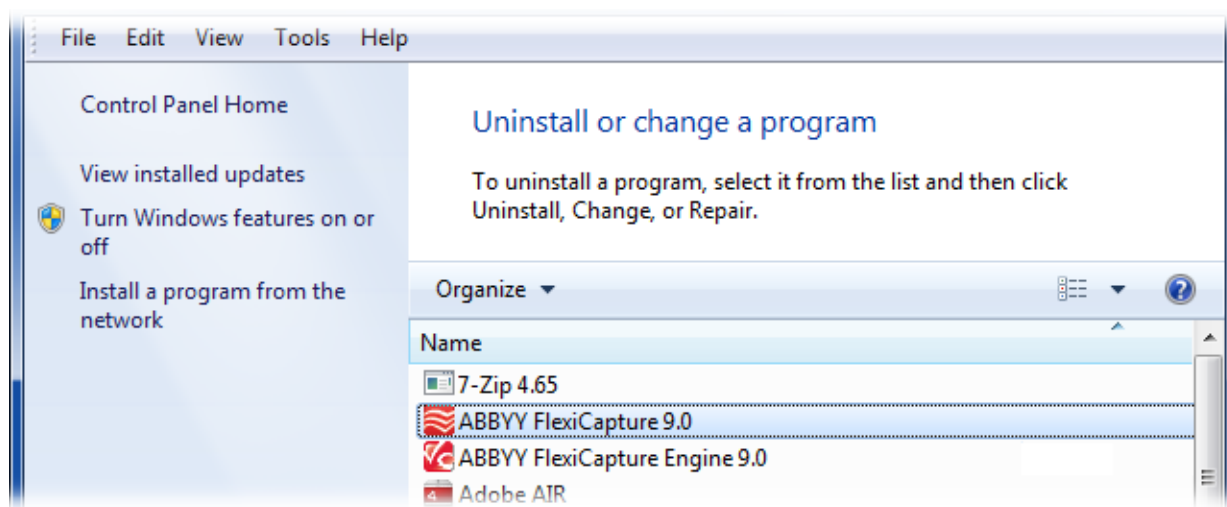
Database	Script
SQL Server	Update_Reportingmodel.sql
Oracle	Update_Reportingmodel_Oracle.sql
DB/2	Update_Reportingmodel_db2.sql

## Updating an ABBYY installation

This section describes what you must do before and after updating an ABBYY installation in connection with an update from XBOUND 3.6.0.1 to XBOUND 3.7.1. (These steps are not needed if you upgrade from 3.6 R2 or 3.7 to 3.7.1.)

### Before updating ABBYY

1. Uninstall ABBYY FlexiCapture 9.0 and ABBYY FlexiCapture 9.0 Engine (if you use it). Do this from the Windows **Control Panel** > **Add or Remove Programs**:



2. Uninstall ABBYY FineReader Engine 10 (if you use it):

- Stop the “ABBYY FineReader Engine 10 License Server” service. (There are instructions on page 66.)
- Uninstall the “ABBYY FineReader Engine 10 License Server” service. To do this, go to this folder in case of a 32-bit OS:

`Program Files\Common files\ABBYY\SDK\10\Licensing`

Or this folder in case of a 62-bit OS:

`Program Files(x86)\Common files\ABBYY\SDK\10\Licensing`

- From the \Licensing folder run this command:

`DeinstallLicensingService.cmd`

3. After that all the FlexiCapture Engine-related folders can be deleted:

`Program Files\ABBYY SDK\10\FineReader Engine`

`Program Files\Common Files\ABBYY\SDK\10\Licensing`

Or

`Program Files(x86)\Common Files\ABBYY SDK\10\FineReader Engine`

`Program Files(x86)\Common Files\ABBYY\SDK\10\Licensing`

## After updating ABBYY

1. Using Windows Explorer, check whether this file is present:

`Program Files (x86)\ABBYY SDK\10\FineReader Engine\frengine.ini`

2. If you cannot find this file, copy it from XBOUND setup subfolder xFC\_2 to the folder shown above.

## Migrating the database contents

Several database records must be adjusted to the new software.

❗ **Important:** This is absolutely required. Ensure that it is done without any errors.

1. Open a command prompt.
2. Change directory to `C:\Program Files (x86)\ReadSoft\xbound`.
3. Enter the command `xboundMigration` with these parameters:
  - `Eventlog`, if the program is to log in the Event Log, or another string if the program output is to be done on a console.
  - `Native` if the application server is available via the XBOUND Native Protocol, `Remoting` if the application server is available via remoting, or `WebService` if it is available via WebService.
  - The URL of the application server.

(The last two arguments can be copied from the `foxconfig` configuration file and pasted into the command line.)

If statistical data are to be acquired, set up a new statistics database and link it to the production database. The necessary steps are described “Collecting statistical data” in *XBOUND Help*.

The statistics collector of older XBOUND versions and the statistical databases created with it are no longer supported.

## Additional procedure if you upgraded RCF

The RCF configuration and runtime data must be migrated to the current version. You must do this after upgrading the installation or importing older XBOUND processes. Use this procedure:

1. **Important:** At this point the `xboundOcfMigration.exe` program must be run once. This program requires call-up parameters. Therefore, adjust the file `xboundOCFMigration.cmd` file and then start `xboundOcfMigration.exe`.
2. Now the `xboundOcfValidationBase` must be updated:
  - a) Open the Business Logic Designer and select **File > Libraries**.
  - b) Open `xboundOcfValidationBase`.

c) In the dialog that is displayed, enter the path of `xboundOcfValidationBase.dll` (normally `C:\Program Files\ReadSoft\xbound`).

d) Update by clicking **OK**.

**Note:** If “OCR Mapping” does not work in the RecoStar parameter set or at runtime, see “Known Problems” in *XBOUND RCF Release Notes*.

**Note:** If you import processes that were exported from the old system, you must again execute `XBOUNDMigration.cmd` and then `xboundOcfMigration.cmd` (adjusted for your system).

## Additional procedure if you upgraded RCC

1. Using the Process Designer, open each RCC process step, select **DOX** in the **Parameter set** drop-down list, and click **OK**.
2. Ensure that the ReadSoft Knowledge Processing service is stopped.
3. Restore the `ReadSoft.Du.KnowledgeStore.Service.exe.config` file that you saved from your previous installation (see page 56). By default, the file is located in `C:\Program Files (x86)\ReadSoft\Capture Components`.
4. Upgrade the Knowledge Processing database using the SQL script provided. In a default installation, this script is found in `C:\Program Files (x86)\ReadSoft\Capture Components\SqlScripts\KnowledgeStore`.
5. In the Knowledge Processing database, the solution GUIDs in the **StoreName** column must be replaced with the solution names. Use this procedure:
  - a) Using SQL Server Management Studio, run this command on the RCC configuration database to find the GUID that corresponds with each solution name:

```
select dbid, name
from [Your_Database].dbo.specifications
where botype=40110
```

...where *name* is the name of your solution and *dbid* is the corresponding GUID (the value in the **StoreName** column).

- b) For each pair (*dbid*, *name*), update the Knowledge Processing database using this command:

```
update [Your_Database].dbo.LDPData
set StoreName = 'name'
where StoreName='dbid'
```

## Continuing the production process

If the upgrade was successful, the system should be tested briefly. Then production with XBOUND can be continued:

1. Restart all XBOUND clients and application servers, and restart all XBOUND-related Windows services. (There are instructions on page 66.) Do not forget the ReadSoft Knowledge Processing Service and the XBOUND WebService,
2. Inform users that production can resume.

# Additional information

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## 64-bit installation

Installing a 64-bit XBOUND system does not differ in principle from installing a 32-bit system. However, there are some issues to take into consideration:

- You can install and operate the 32-bit XBOUND product on a 64-bit operating system.
- You can install and operate 32-bit and 64-bit versions on one computer in parallel.
- The 64-bit version does not support all XBOUND components (for details, see below.)
- If dongle drivers are necessary, install the 64-bit versions. These are normally available on the manufacturer's website.

## XBOUND components

The following XBOUND components can run as native 64-bit components:

- |  |  |
|--|--|
| ▪ XBOUND Platform Service                      | ▪ Activity Barcode classify                |
| ▪ XBOUND License Service                       | ▪ Activity Document clean up               |
| ▪ XBOUND Activities Service                    | ▪ XBOUND Collector for File System         |
| ▪ XBOUND Collect Service                       | ▪ XBOUND Collector for SCAN CLIENT         |
| ▪ XBOUND Agent Service                         | ▪ XBOUND Agent for Session Removal         |
| ▪ Activity Build Document Structure            | ▪ XBOUND Agent for Document Resubmit       |
| ▪ Activity Split Batch                         | ▪ XBOUND Agent for Service Logging Removal |
| ▪ Activity Merge Batch                         |  |
| ▪ Activity Adapter for File System             |  |
| ▪ Activity Adapter for File System (Structure) |  |

All other components can be installed and used as 32-bit versions on a 64-bit operating system. To do this, start the XBOUND 32-bit setup explicitly and choose the desired components.



## RCF components

The following RCF components can run as native 64-bit components:

- ReadSoft Capture Verification application (formerly called “Open Capture Verifier”)
- Business Logic activity

All other XBOUND RCF components can be installed and used as 32-bit versions on a 64-bit operating system. To do this, start the XBOUND 32-bit setup explicitly (see above) and choose the desired components.

## RCC components

- 64-bit XBOUND installations are not supported by RCC.
- The ReadSoft Knowledge Processing service *must* run as a 64-bit service.

## Silent installation

If XBOUND is to be installed in the uncontrolled mode, then start installation using the following command. The possible values for “para” are shown in the table below.

```
Setup.exe /sTARGETDIR=?:\Program Files\ReadSoft\xbound para1 para2 ...
```

Value	Meaning
INSTALL_REGISTRATION=TRUE	Installs the XBOUND Registration
INSTALL_PROCESSDESIGNER=TRUE	Installs the XBOUND Process Designer
INSTALL_PROCESSMONITOR=TRUE	Installs the XBOUND Process Monitor
INSTALL_DOCUMENTVERIFIER=TRUE	Installs the XBOUND Document Verifier
INSTALL_DOCUMENTATION=TRUE	Installs the XBOUND documentation
INSTALL_GAC_4_0=TRUE	Installs the XBOUND runtime environment in the global assembly cache as well. These object use Microsoft .NET Framework 4.0.
INSTALL_RCF=TRUE	Installs XBOUND RCF
INSTALL_RCFVERIFICATION=TRUE	Installs RCF Verification
INSTALL_SDKTEMPLATES=TRUE	Installs the samples for the SDK

Example that installs the XBOUND Process Monitor on the D drive in the ReadSoft\xbound directory:

```
Setup.exe /s TARGETDIR=D:\ReadSoft\xbound INSTALL_PROCESSMONITOR=TRUE
```

Example that creates a local XBOUND Activities Service with the Sc.exe command-line program. The service should be operated under the “Domain\account” user with the password “123”:

```
Sc.exe create "xbound Activity Service" binPath=
"D:\ReadSoft\xbound\xboundActivities.exe xbound Activity Service" obj=
Domain\account password= 123
```

Example that installs RCF Verification on the D drive in ReadSoft\xbound directory:

```
Setup.exe /s TARGETDIR=D:\ReadSoft\xbound INSTALL_RCFVERIFICATION =TRUE
```

## (Re)starting or stopping Windows Services

XBOUND services manage all non-interactive (automatic) processes within XBOUND. At different times while installing, uninstalling or setting up XBOUND, you need to start, stop, or restart Windows Services. Use this procedure:

1. Select **Start** menu > **Control Panel** > **Administrative Tools** > **Services**.
2. In the list of services that is displayed, right-click the service and select **Start** or **Stop** or **Restart**.

These are the XBOUND-related Windows services. For a description of these services, see *XBOUND Help*.

- XBOUND Collect Service
- XBOUND Activities
- XBOUND System Agent Service
- XBOUND License Service
- XBOUND Platform
- XBOUND WebService
- ReadSoft Knowledge Processing Service
- ABBYY FineReader Engine 10 License Server

## Reinstalling the same version

If you need to reinstall the same version of XBOUND, RCF or RCC, there is no need to uninstall it, delete databases, etc. Simply run the installation program again.

# Installing RCC using MSI files

## Installation order

RCC Administration must be installed before RCC:

1. First `Capture Components Administration.msi`
2. Then `ReadSoft.Capture.Components.msi`

If you install them in the wrong order, the XBOUND activities are not installed. Among other things, you will be unable to import a Capture Components solution. A typical error message:

Could not retrieve deployed solutions. Please make sure that the DOCUMENTS database is properly installed.

If RCC and RCC Administration were already installed in the wrong order, use this procedure to solve the problem:

1. Run `ReadSoft.Capture.Components.msi` again.
2. When the setup dialog is displayed, click **Change**.
3. Add the **Activities** feature to the custom setup.
4. Proceed with the installation.

## Error message and rollback

Installing RCC using `ReadSoft.Capture.Components.msi` can cause the following error to be displayed and the installation to roll back:

Calling custom action CreateDiagnosticsCategory!CreateDiagnosticsCategory.CustomActions.  
CreatePerformanceCounterCategory

This error is caused by corrupt performance counters in the operating system. Although it is not related to any ReadSoft product, it prevents RCC from installing.

To solve this problem, recreate the corrupted performance counters by running this command from the command prompt: `run lodctr /r`

# Uninstalling XBOUND and related components

If XBOUND was installed to a non-default location (that is, not `C:\Program Files (x86)\ReadSoft`), then RCC (if present) must be uninstalled first. The orders listed below are best practice even if XBOUND was installed in the default location.

## Installation order

1. XBOUND
2. ReadSoft Capture Framework (RCF)
3. Capture Components Administration
4. ReadSoft Capture Components (RCC)

## Uninstallation order

1. ReadSoft Capture Components (RCC)
2. XBOUND
3. ReadSoft Capture Framework (RCF)
4. Capture Components Administration

If XBOUND is uninstalled first, the information about where it was located is no longer available, and the system will try to uninstall RCC from the default location (`C:\Program Files (x86)\ReadSoft`).

# Encrypting communication

You can encrypt the communication between XBOUND applications and the XBOUND server. The Native protocol offers two additional communication modes in addition to the standard communication over an unencrypted TCP connection:

- TCPE: Windows supports encrypting the communication in addition to authentication.
- TCPS: The communication is encrypted using an additional SSL (Secure Socket Layer).

## Encryption by Windows (TCPE)

The mechanism used for authentication is also used for encrypting the communication channel. The encryption parameters are adjustable in Windows. For details, contact your IT department.

To use TCPE encryption:

1. In the `xboundPlatform.exe.config` file, comment the entry containing `Xbound.Server.TcpPort` to inhibit unencrypted communication.
2. Uncomment the entry containing `Xbound.Server.TcpePort` to activate encrypted communication.
3. Restart the XBOUND Platform service. (There are instructions on page 66.)
4. Configure the XBOUND applications to use a Unified Resource Identifier (URI) with the `tcpe` scheme and the configured port when logging in. Example: `tcpe://myserver:5555`

## Encryption by SSL (TCPS)

In this case, encryption is done by an additional SSL (Secure Socket Layer). The encryption parameters are defined by the certificate that you use.

To use TCPS encryption:

1. Create a certificate for encrypting on the computer running the XBOUND Platform service in the certificate store of the local computer, in `My Certificates`.
2. Start XBOUND Management Center by selecting **Start > All Programs > ReadSoft > XBOUND > XBOUND Management Center**.
3. Load the Common Configuration Manager plug-in.
4. Click **XBOUND Platform Service** and select the **XBOUND Connection** tab.
5. Select **Use SSL**.
6. In the **Certificates** list, select the certificate that you created.
7. Click **Save**.
8. Restart the XBOUND Platform service. (There are instructions on page 66.)
9. Configure the XBOUND applications to use a Unified Resource Identifier (URI) with the `tcps` scheme and the configured port when logging in. Example: `tcps://myserver:6666`

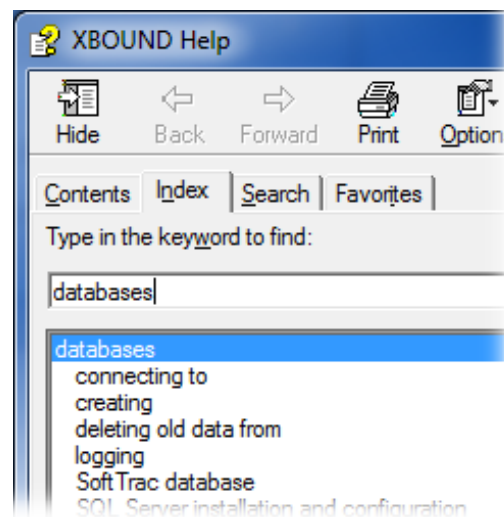
## Database maintenance and backup

It is essential that you establish and carry out maintenance and backup routines that are appropriate to your system.

RCC: For information about maintenance and backup, as well as error prevention and troubleshooting, please refer to *Installing and Configuring Microsoft SQL Server For Use With ReadSoft Capture Components*, a ReadSoft document that is available in the Capture Components installation.

If there is a power failure, or if a Capture Components Administration process is terminated unnaturally for any other reason, the databases can become corrupt. In most cases, the network database server handles such situations and you need only restart the process.

Additional information about databases can be found in the different help files (see page 72). For a list of topics related to databases, click the **Index** tab in a help file and type *databases* in the box.



## Switching between RCC databases

If you have two or more pairs of RCC databases (see page 22), for example a test system and a production system, use the below procedure to switch.

This procedure can also be used to switch from one Knowledge Processing database (see page 27) to another.

1. If it is open, close Capture Components Administration.
2. Select **Start** menu > **All Programs** > **ReadSoft** > **Capture Components** > **Configuration**.
3. In the navigation panel, select **Capture Components** > **Database Configuration** (or **Knowledge Processing** > **Database Configuration**).

4. Adjust the settings to reflect the database that you want to switch to. The settings are described in detail starting on page 23 (for the Capture Components databases) and 27 (for the Knowledge Processing database).

The screenshot shows the 'ReadSoft Configuration Tools' window. On the left, the 'Knowledge Processing' section is expanded, and 'Database Configuration' is selected. The main area contains the following settings:

- ☐ IsWindowsAuthentication
- Server: dbserver (dropdown menu)
- ServerLogin: sa
- ServerPassword: (masked with dots)
- DatabaseName: RCC
- DatabaseLogin: rcc\_user
- DatabasePassword: (masked with dots)
- DomainUserGroup: (empty text box)

At the bottom right, there are three buttons: 'Test', 'Create', and 'Save'.

5. Click **Test** to test the connection.
6. Click **Save**. This updates:
  - The Windows Registry, if you selected **Capture Components > Database Configuration**.
  - The configuration file `C:\ProgramData\ReadSoft\Documents\KnowledgeStore\ReadSoft.KnowledgeStore.Database.config`, if you selected **Knowledge Processing > Database Configuration**.

## Restarting Windows services

After switching databases, you must restart all relevant Windows services, namely ReadSoft Knowledge Processing Service and/or XBOUND Activities.

Instead of clicking **Restart**, we recommend this procedure:

1. Click **Stop**.
2. Wait 10 seconds.
3. Click **Start**.

## Additional SQL scripts

The following additional scripts can be found in the `sql` folder in your XBOUND installation (default location `C:\Program Files\ReadSoft\xbound\Sql`).

### **`xbound_sequence_update_oracle_3.7.0.0.sql`**

This helper script can be used if for any reason the sequences in your Oracle database do not reflect the maximum ID of your records.

### **`DocManager_Oracle.sql`**

This script creates helper indices which can improve the performance of DocManager in an upgraded database (since the upgrade scripts do not create them).

### **`*_drop_*.sql`**

These scripts delete all database objects that the `xbound_create_*.sql` scripts create.

## Where to find more product information

Various help files (CHM files) and other documents (PDF files) are available in each installation of XBOUND. Select **Start** menu > **All Programs** > **ReadSoft** > ....

The help files also contain a topic called “Additional documentation.” That topic contains links to most available documents.