

SAP Business One



PUBLIC

## Administrator's Guide

Applicable Release:

SAP Business One 8.8

All Countries

English

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# 1. Introduction

The Administrator's Guide for SAP Business One provides a central point for the technical implementation of SAP Business One. Use this guide for reference and instructions before and during the implementation project.



## Note

This guide covers only the installation of SAP Business One and its add-ons. For information on the installation of other packages, such as remote support platform for SAP Business One, see the *Administrator's Guide to Remote Support Platform for SAP Business One* document under ...:\Documentation\ on the SAP Business One Product DVD.

For more installation information about Crystal Reports Basic 2008 for SAP Business One, see the installation file on the Crystal Reports Basic 2008 for SAP Business One CD, which is shipped together with the SAP Business One DVD.

The Administrator's Guide consists of the following main sections:

- Prerequisites

This section provides prerequisites to check before you proceed to the installation.

- Installing SAP Business One

This section provides the process flow and instructions for installing and setting up SAP Business One and for removing the application.

The three widely-used installation scenarios are introduced in this section. They are as follows:

- Server-client installation
- Standalone installation
- Remote installation

- Performing Post-Installation Activities

This section provides instructions for configuring the SAP Business One components after the installation.

The activities include the following:

- Configuring services
- Assigning SAP add-ons
- Installing Microsoft Outlook integration standalone version
- Setting up dot matrix printers

- Upgrading SAP Business One

This section provides instructions for upgrading SAP Business One. You can use either of the following two methods to upgrade a previous installation of SAP Business One to SAP Business One 8.8:

- Upgrading with the SAP Business One upgrade wizard

You can use a new tool, the SAP Business One upgrade wizard, to guide you through the upgrade process of the server components and the client files. After the wizard finishes successfully, you can log on to SAP Business One and upgrade with your client application workstation.

- Upgrading directly from the product DVD folders

SAP Business One 8.8 also enables direct upgrading of some components from the product DVD folder files. This option is suggested for advanced users only.

- Performing Database Maintenance

This section assists you with the following routine operations of SAP Business One and its database:

- Database server administration, including the following:

- Starting and stopping database services
- Performing weekly tasks
- Performing regular tasks
- Performing backups
- Performing restore functions

- Working with Data Transfer Workbench

- Getting Support

Introduces the means by which you can get support from SAP. These include using the following:

- SAP Business One online help documentation
- SAP Notes
- Support desk

- Managing Security in SAP Business One

This section explains how to implement a security policy and provides recommendations for meeting the security demands of SAP Business One. As of SAP Business One 8.8, the use of more advanced encryption algorithms is supported.

The logon process for end users is simplified, requiring authentication using SAP Business One user ID and password only.

## 1.1. Application Components Overview

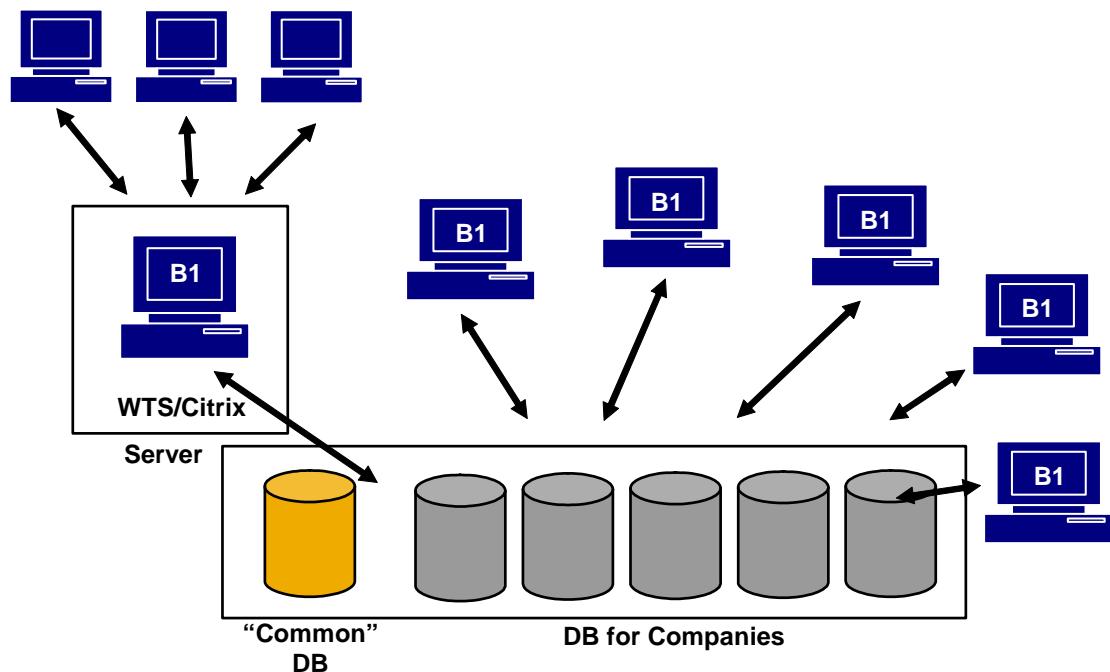
In this section includes a description of the important software components of SAP Business One and how they are used by SAP Business One's business processes.

SAP Business One is a client-server application and comprises the fat client and database server. The SAP Business One database only stores data; that is, there are virtually no views or triggers.

The features and properties of SAP Business One server are as follows:

- One database server holds all company databases and the SBO-Common database. All company data is stored on one database; SBO-Common is the central database that holds central data, versions, and upgrade information.
- SAP Business One can run on Windows Terminal Services or Citrix Server and can run in several instances for different sessions.
- The license server can be on a different computer from the main server.

The server architecture is shown below in Figure 1.



**Figure 1: SAP Business One Server Architecture**

- Mandatory SAP Business One server components
  - License server of SAP Business One server tools
 

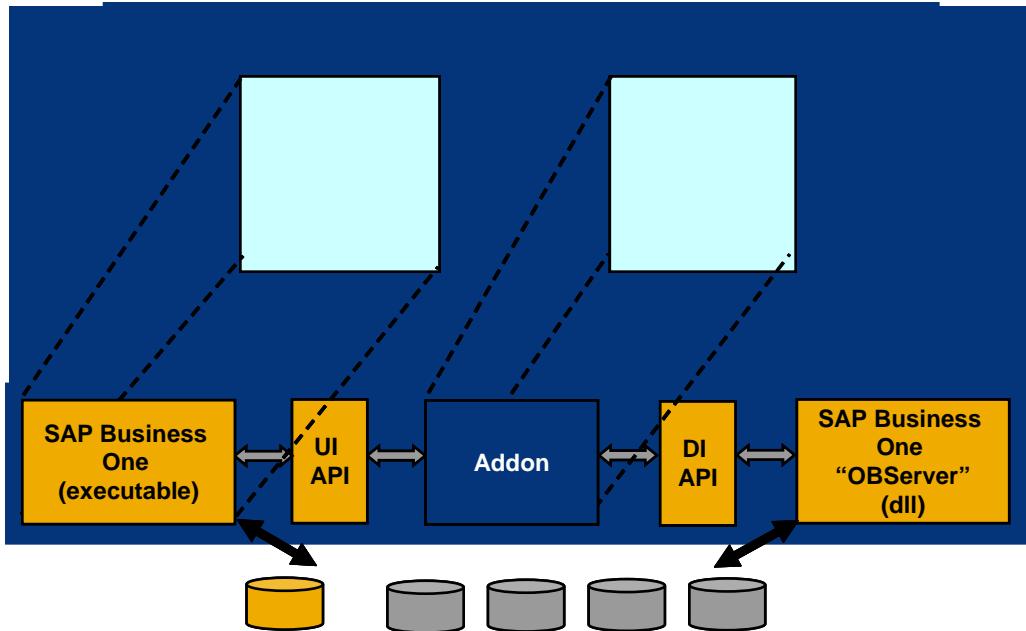
The license server works with Microsoft SQL Server to maintain the user sessions.
  - SAP Business One server
 

Includes SAP Business One databases and server share folder. The database server functions as the center of the SAP Business One server.
- Optional SAP Business One server components:
  - Other services of SAP Business One sever tools
  - Server of remote support platform for SAP Business One
  - Microsoft Outlook integration add-on

The SAP Business One client is basically the application executable. The client machine holds SDK components used by add-on solutions.

- Data interface: a COM-based API and an applicative dll (OBServer.dll) file that enables the usage of most SAP Business One objects.
- UI interface: a COM-based API which is connected to the running application and enables runtime manipulation and enhancement of the SAP Business One GUI and its flow.

The client architecture is shown below in Figure 2.



**Figure 2: SAP Business One Client Architecture**

## 2. Prerequisites

- For information on hardware and software requirements, see the following:
  - *SAP Business One System Requirements*, which you can find in the SAP Business One documentation resource center in SAP Channel Partner Portal at <http://channel.sap.com/sbo/documentation>.
  - Platform requirements. You can find the information at <http://channel.sap.com/sbo/platforms>.
- You have Microsoft SQL Server 2005 or 2008 installed on your computer.



### Note

If you do not have Microsoft SQL Server 2005 or 2008 already installed on your computer, you can install either one during the installation process if you have the Microsoft SQL Server 2005 or 2008 DVD.

- To properly use the SAP Business One Fixed Assets add-on on Microsoft SQL Server 2005, make sure that you have Microsoft SQL Server 2005 SP3 installed.
- In the last step of the SAP Business One server installation, you have the option of installing the remote support platform for SAP Business One. For more information, see the *Administrator's Guide to Remote Support Platform for SAP Business One* document under ...:\Documentation\ on the SAP Business One Product DVD.

### 2.1. Constraints

You can run the SAP Business One product version for 31 days without a license. To continue working with the application after 31 days, you must install a valid license key assigned by SAP.



### Note

If you are a partner, for more information about installing the license key, see *License Guide SAP Business One 8.8* in SAP Channel Partner Portal at <http://channel.sap.com/sbo/documentation>.

Customers can find the document in SAP Business One Customer Portal at <http://service.sap.com/smb/sbocustomer/documentation>.

The demo databases provided are not for productive use. The application supports 40 localizations in its demo databases.



### Note

For more information, see the online help for SAP Business One.

## 2.2. User Privileges

The following table summarizes the requirements and recommendations for the group setup of the displayed operating system:

Operating System Process	Windows XP, Windows Vista	
	Recommended	Minimum
Client installation	Administrator	Administrator
Client upgrade	Administrator	Administrator
Runtime	Users	Users

SAP Business One supports the Microsoft Windows XP operating system in a server configuration environment for standalone systems and clients.

## 2.3. Installation Checklist

To verify a correct and complete installation, use the following checklist:

1. Install Crystal Reports Basic 2008 for SAP Business One.
2. Install Microsoft SQL Server 2005 or Microsoft SQL Server 2008.
3. Install the SAP Business One server tools.
4. Install the SAP Business One server components.
5. Install the SAP Business One client application on workstations.
6. Install optional components (add-ons, SDK).

The precise sequence of these steps depends on your installation scenario. For more information, see the relevant sections under [Performing SAP Business One Installations on Client Machines](#).

## 3. Installing SAP Business One

Based on common business scenarios, the three widely used installation scenarios for SAP Business One are as follows:

- Server-client mode: SAP Business One server and server tools are installed on one machine; one or more clients are installed on other machines.
- Standalone mode: For a central SAP Business One installation, server components and clients are installed on one machine.
- Remote mode: For a remote server-client SAP Business One installation, SAP Business One is installed on a terminal server or in a Citrix environment.



### Note

During the SAP Business One installation process, Crystal Reports Viewer is installed automatically if it is not already installed on your computer. For more installation information about Crystal Reports Basic 2008 for SAP Business One, see the installation file on the Crystal Reports Basic 2008 for SAP Business One CD, which is shipped together with the SAP Business One DVD.

### 3.1. Scenarios

You can install SAP Business One using one of the following scenarios:

- Server-client mode:

Server-client mode is considered best practice for an SAP Business One installation. In this mode, you install the following on the server machine:

- a. SAP Business One server tools
- b. SAP Business One server
- c. Microsoft Outlook integration add-on

You install the following on client machines:

- a. SAP Business One client
- b. Optional client components, which include:
  - SBO Mailer and fax service
  - Software Development Kit (SDK)
  - Data Transfer Workbench
  - Microsoft Outlook integration add-on standalone version

- Standalone mode:

You install all the server and client components on one machine. They are as follows:

- o SAP Business One server tools
- o SAP Business One server
- o Microsoft Outlook integration server installer add-on
- o SAP Business One client
- o Optional client components

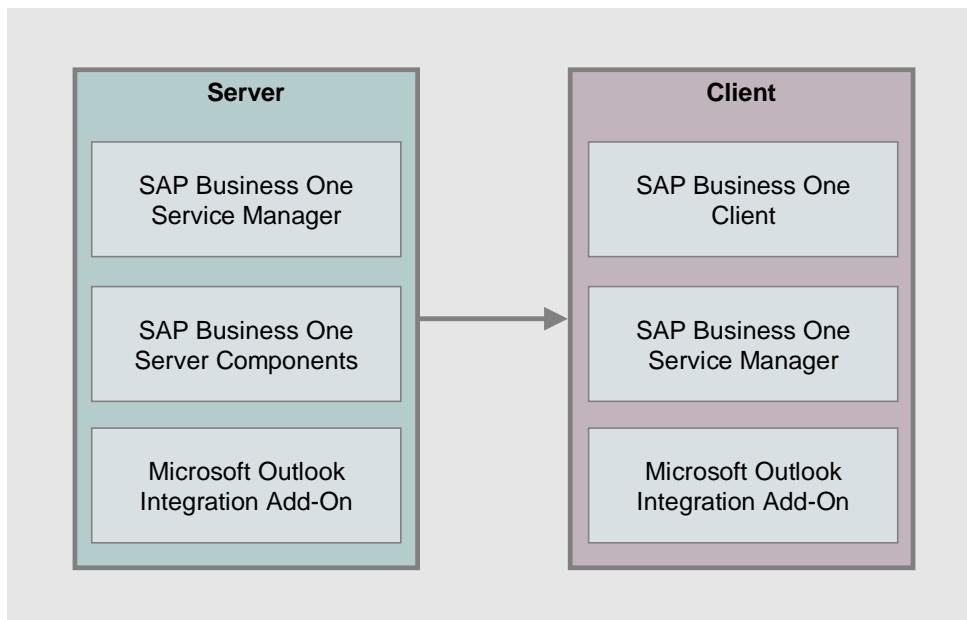
- Remote mode:
 

This mode enables logging on to SAP Business One from a remote machine.

  - a. You install the following on a remote server machine:
    - i. SAP Business One server tools
    - ii. SAP Business One server components
    - iii. Microsoft Outlook integration add-on
    - iv. SAP Business One client
    - v. Optional client components
    - vi. Microsoft Windows server terminal services
  - b. You install Microsoft terminal services client on terminal client machines.

## 3.2. Installing SAP Business One in Server-Client Mode

In this scenario, you perform the server machine installations and the client machine installations separately, as shown in Figure 1 below:



**Figure 3: Server-Client Landscape**

### 3.2.1. Performing an SAP Business One Installation on Server Machines

You need to perform the following actions on the server machine:

1. Install SAP Business One server tools.
2. Install SAP Business One server components.

Server components include the following:

- SAP Business One server application
- Microsoft Outlook integration server installer add-on

### 3. Register the add-ons.

The installation of the server components automatically registers all SAP add-ons on the server machine. There is no need for additional registering.

The SAP Business One server application automatically registers SAP add-ons to all companies on the server. Add-ons appear in the *Available Add-Ons* list in the *Add-On Administration* window.

For more information, see [Assigning SAP Business One Add-Ons](#).



#### CAUTION

The SAP Business One installation creates a new SQL user (SBO-COMMON) and password. Do not modify or delete this user ID or password. They are essential for the correct operation of the SAP Business One application.

### 4. Change the **sa** login password or create an alternative user.

For security reasons, we recommend that you either change the **sa** logon password right after installing SAP Business One, or as a safer option, create a user to serve as a substitute for the **sa** user. For more information, see [Database Authentication](#).

## Prerequisites

- The installation machine complies with all hardware and software requirements, as detailed in *SAP Business One System Requirements*, available at <http://channel.sap.com/sbo/documentation>.
- You have administrator rights on the machine on which you are performing the installation.



#### Recommendation

You should have Microsoft SQL Server 2005 or Microsoft SQL Server 2008 installed before installing SAP Business One. If you install Microsoft SQL Server silently, you will need to change the passwords. For more information, see [Changing the sa Login Password and Creating an Alternative User](#).

### 3.2.1.1. Installing Microsoft SQL Server 2005 or Microsoft SQL Server 2008

#### Procedure

1. Insert the SAP Business One Product DVD in the DVD drive.

The installation program appears automatically. If the DVD does not launch the installation program, navigate to the DVD root folder and double-click the *Autorun.exe* file.

The *SAP Business One Installation* window appears.

2. In the installation window, select the *Server* radio button, and choose the *Next* button.

If you have already installed Microsoft SQL Server 2005 or Microsoft SQL Server 2008, proceed with [Changing the sa Login Password and Creating an Alternative User](#).



3. If Microsoft SQL Server 2005 or Microsoft SQL Server 2008 cannot be detected, the Microsoft SQL Server 2005 or Microsoft SQL Server 2008 installation window appears. Do one of the following:

- To install Microsoft SQL Server 2005 or Microsoft SQL Server 2008 on the machine, select the checkbox *Install Microsoft SQL Server 2005 or 2008 on this machine* and continue with step 4.



Make sure that the name of the computer on which you are installing Microsoft SQL Server does not contain any of the following special characters:

- “&”
- “<”
- “>”
- “””
- “””

Make sure to align your computer name with the name format of your license server. To check or correct your computer name, proceed as follows:

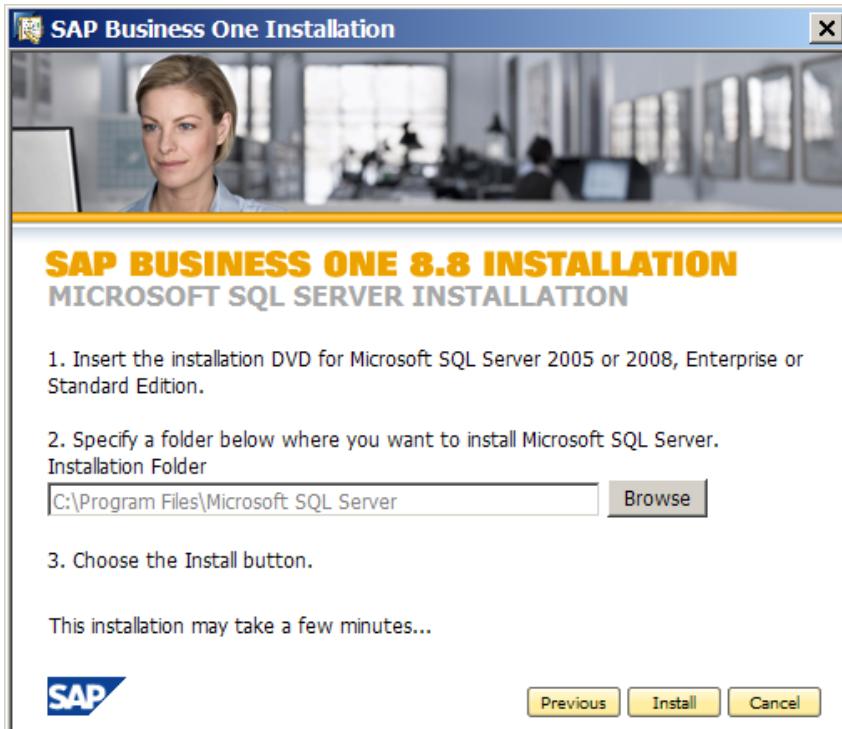
- i. Choose *Start → Control Panel → System*.
- ii. In the *System Properties* window, select the *Computer Name* tab.
- iii. In the *Computer description* field, check the computer name.
- iv. To correct the computer name, choose the *Change* button.
- v. In the *Computer Name/Domain Changes* window, specify a new name for the machine and choose the *OK* button.

- If you already have Microsoft SQL Server installed, to continue with the SAP Business One installation, select the checkbox: *If you are sure that Microsoft SQL Server 2005 or 2008 has been installed, continue installing SAP Business One*. Continue with step 3 of [Installing the Server Tools](#).



4. In the *Microsoft SQL Server Installation* window, do the following:
  - a. Insert the Microsoft SQL Server 2005 or Microsoft SQL Server 2008 product DVD in the DVD driver.
  - b. In the *Installation Folder* field, specify the folder in which you want to install the Microsoft SQL Server. To change the default installation directory, choose the *Browse* button.

c. To start the silent installation, choose the *Install* button.



5. In the message dialog box, choose the *OK* button.

6. In the *Choose file* window, locate the Microsoft SQL Server 2005 or 2008 installation file. Choose the *Open* button.

The setup begins a silent installation of SQL Server components and applies the default values as shown in the table below.



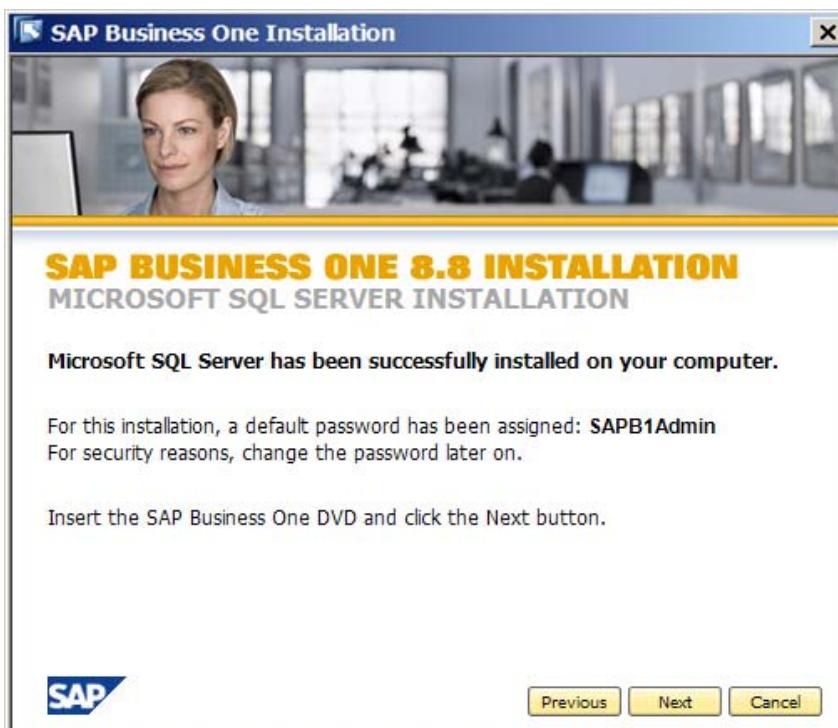
If you did not install Microsoft SQL Server 2005 or Microsoft SQL Server 2008 through the SAP Business One installation, make sure that you enter the connection settings that match the setup of the SAP Business One application, as shown in the table below.

Window Name	Fields
<i>Registration Information</i>	<ul style="list-style-type: none"> <li><i>Name</i> – copied from the local system</li> <li><i>Company</i> – copied from the local system</li> <li><i>CDKey</i> – copied from the installation DVD</li> </ul>
<i>Components to Install</i>	<p><i>SQL Server Database Service</i></p> <p><i>Workstation Components, Books Online, and development tools</i></p>
<i>Instance Name</i>	<p><i>MSSQLServer</i></p> <p> <b>Note</b></p> <p>Make sure that in the <i>TCP/IP</i> protocol properties of your SQL Server instance, the <i>TCP Port</i> field is set to 1433.</p>
<i>Service Account</i>	<ul style="list-style-type: none"> <li>Use the built-in system account – Local System</li> <li>Start the services at the end of the setup – SQL Server</li> </ul>

Window Name	Fields
<i>Authentication Mode</i>	<ul style="list-style-type: none"> <li>• Mixed Mode (Windows Authentication and SQL Server Authentication)</li> <li>• Password: SAPB1Admin</li> </ul>
<i>Collation Settings</i>	<p><i>SQL collations – Dictionary order case-insensitive, for use with 1252 Character set, Accent Sensitive (SQL_Latin1_General_CI_AS).</i></p> <p> <b>Note</b> If you are installing SQL Server manually, in the <i>Collation Settings</i> window, select <i>Latin1_General</i> and <i>AS</i>.</p>
<i>Error and Usage Report Settings</i>	None marked

- When Microsoft SQL Server 2005 or Microsoft SQL Server 2008 is installed successfully, and you can see the following confirmation window, you can remove the Microsoft SQL Server 2005 or 2008 DVD.

To continue with the SAP Business One installation, choose the *Next* button.



### 3.2.1.2. Changing the sa Login Password and Creating an Alternative User

For security reasons, we recommend that you change the **sa** logon password right after installing SAP Business One, or create an alternative user to the **sa** user, which is the safest option. For more information, see [Database Authentication](#).

### 3.2.1.3. Installing the Server Tools

1. Reinsert the SAP Business One product DVD in the DVD drive.

The installation program appears automatically. If the DVD does not launch the installation program, navigate to the DVD root folder and double-click the *Autorun.exe* file.

2. From the installation window, select the *Server* radio button, and choose the *Next* button.



3. In the *Server Installation* window, do one of the following:

- To automatically install all required server components in one batch, on the same machine, select the *Full* radio button.
- To install server components individually, select the *Custom* radio button and select the option that you want to install.



#### Recommendation

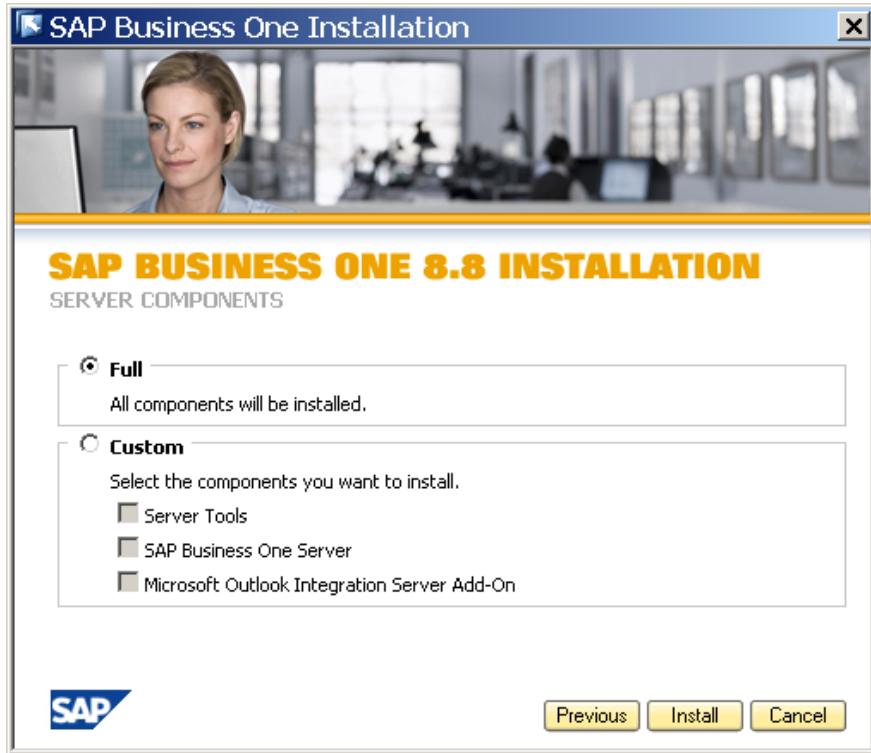
We recommend that you select the *Custom* option, because this option lets you view all available server components. You can then select the components that you want to install on different machines.

Choose the *Install* button. The InstallShield wizard begins running.

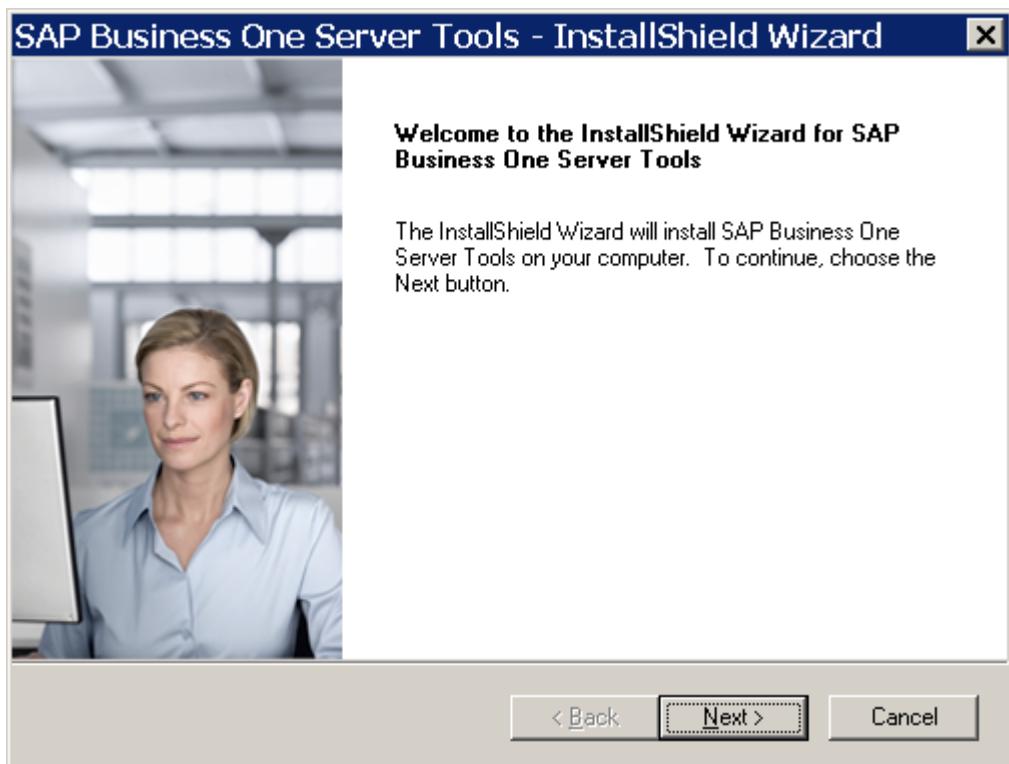


#### CAUTION

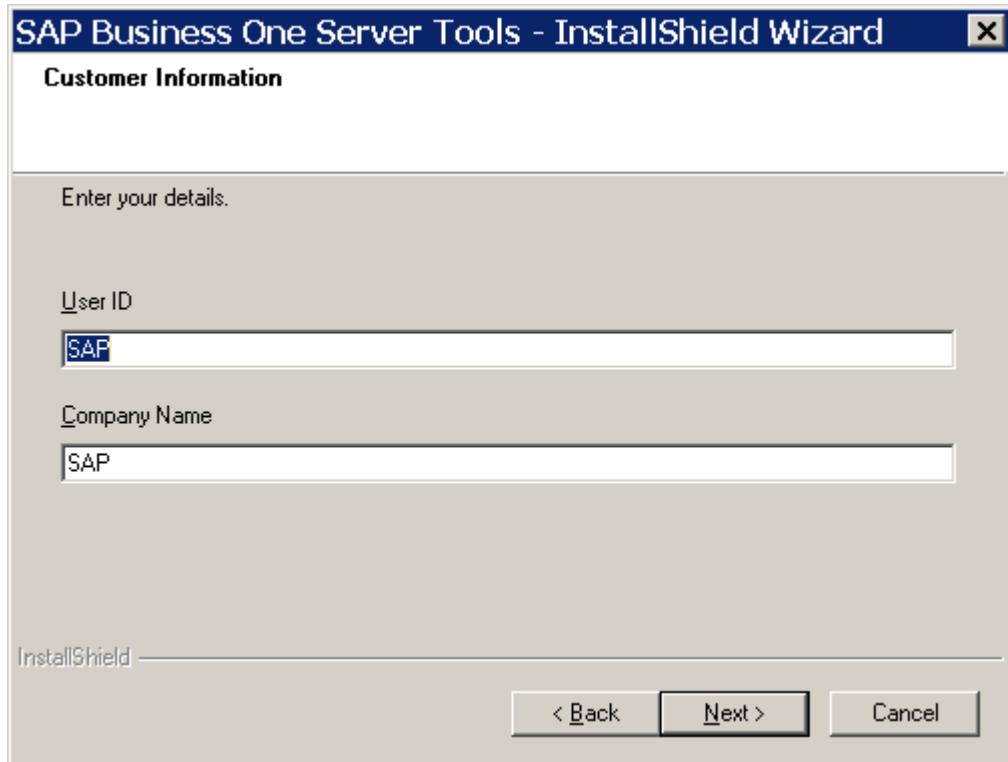
It may take some time for the InstallShield wizard to appear. While you are waiting for the wizard to load, do not activate any other window.



4. In the *Welcome* window, choose the *Next* button.



5. In the *Customer Information* window, specify your user ID and company name and choose the *Next* button.

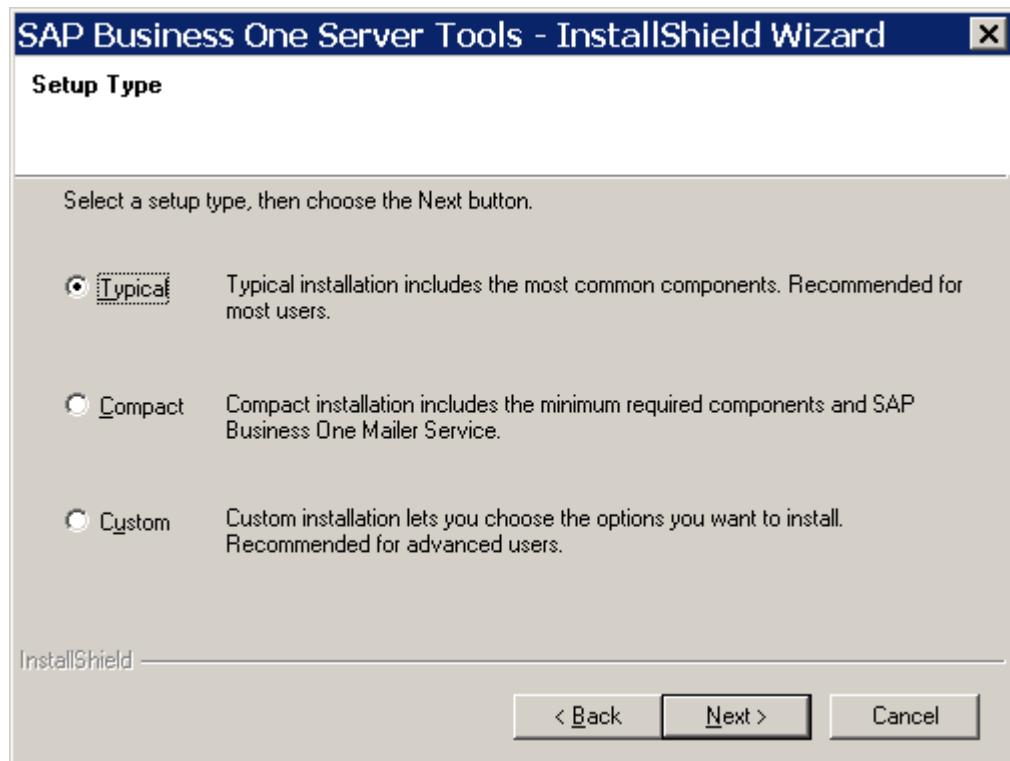


6. In the *Setup Type* window, do one of the following:

- To view all the options and choose the ones you want to install, select the *Custom* radio button.
- To perform a typical installation, select the *Typical* radio button.

Choose the *Next* button.

For a typical installation, proceed to Step 9.

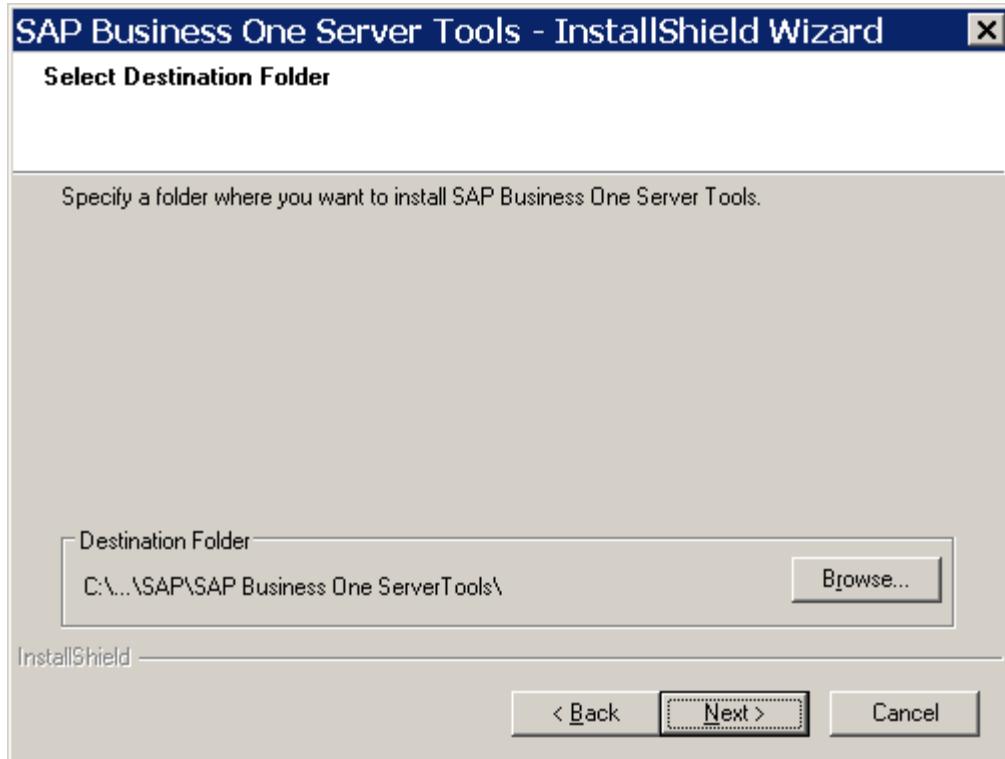


7. In the *Select Destination Folder* window, do one of the following:

- To accept the default installation location for SAP Business One server components, choose the *Next* button.
- To select a different location, choose the *Browse* button, select a directory, and choose the *Next* button.



To install the server components and all additional components, use the standard directory (.. \SAP\SAP Business One Server). If you change the path, do not change the directory names. This rule also applies to the installation of the server components and the client components.



8. In the *Select Features* window, select the components you want to install and deselect the features you do not want to install.



#### Note

To use any component of server tools, you have to operate through SAP Business One Service Manager. Hence, the service manager checkbox is automatically selected and cannot be reset.

Choose the *Next* button.



9. In the *Edit Data* window, specify the site user password, and then choose the *Next* button.

The site user has the following functions and permissions:

- Database credentials configuration
- Company creation
- Service configuration
- Add-on registration
- Read-only user password updates

A site user password is required for authentication against the license server during the following situations:

- Configuring services via SAP Business One Service Manager
- Installing SAP Business One servers
- Creating new companies on SAP Business One clients



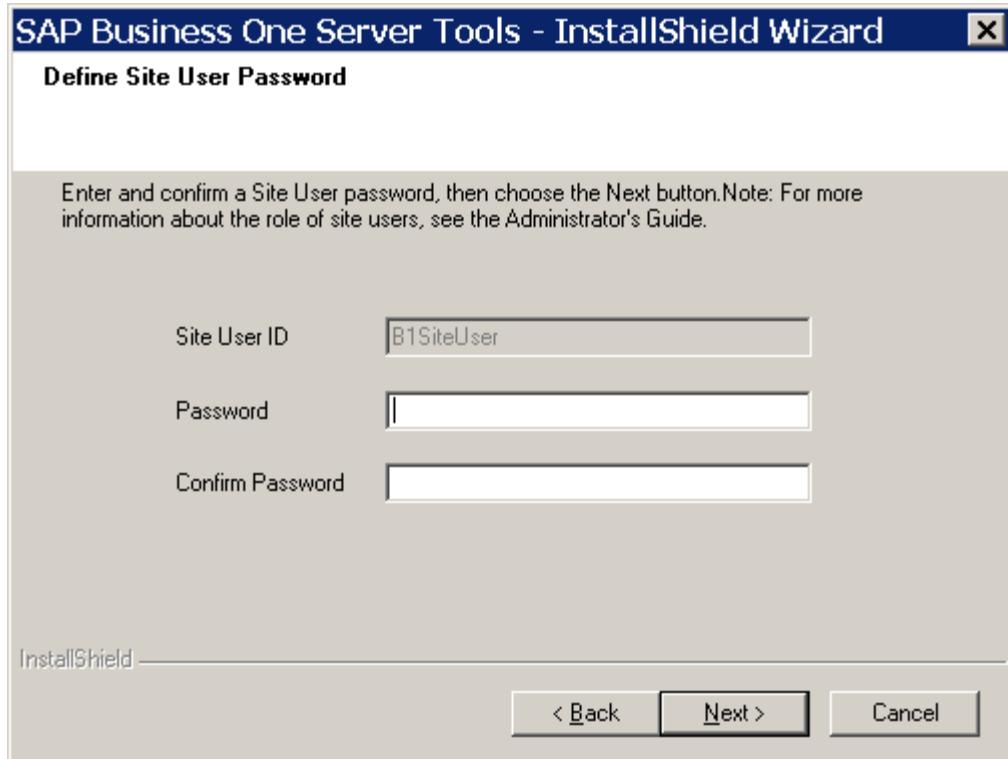
#### Note

To configure any service in the service manager after installation, you have to specify the site user password only on the first logon. For more information, see [Services](#).

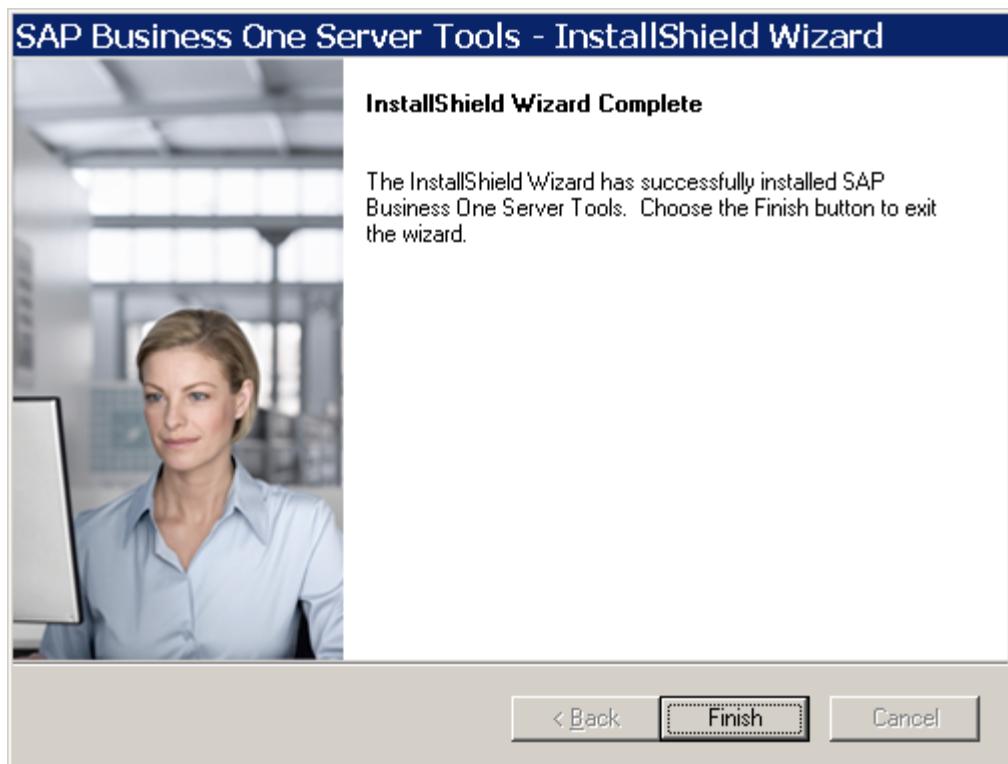


#### Recommendation

For security reasons, you should set a strong site user password, at least as strong as that defined in your company's password policy, and change it frequently. For more information see [Managing Security in SAP Business One](#).



10. In the *Complete* window, choose the *Finish* button.



### 3.2.1.4. Installing the SAP Business One Server

#### Prerequisite

- You have your computer's name or IP address available.
  - To check your computer's full name, do the following:
    - i. In Windows, on the *Desktop*, right-click the *My Computer* icon and select *Properties*.  
The name of your computer appears in the *System Properties* window, on the *Computer Name* tab, next to the *Full computer name* field.
    - ii. Keep a record of the displayed computer name.
  - To check your computer's IP address, do the following:
    - i. In Windows, choose *Start* → *Run*.
    - ii. In the *Open* field of the *Run* window, enter `cmd` and press *Enter*.
    - iii. In the *cmd.exe* window, enter `ipconfig` and press *Enter*.
    - iv. Keep a record of the displayed IP address.
- If the SAP Business One license server is installed on a different machine, make sure that the license server is running when you are installing the SAP Business One server. For information about starting up your license server, see Configuring the License Manager [Error! Reference source not found.](#)

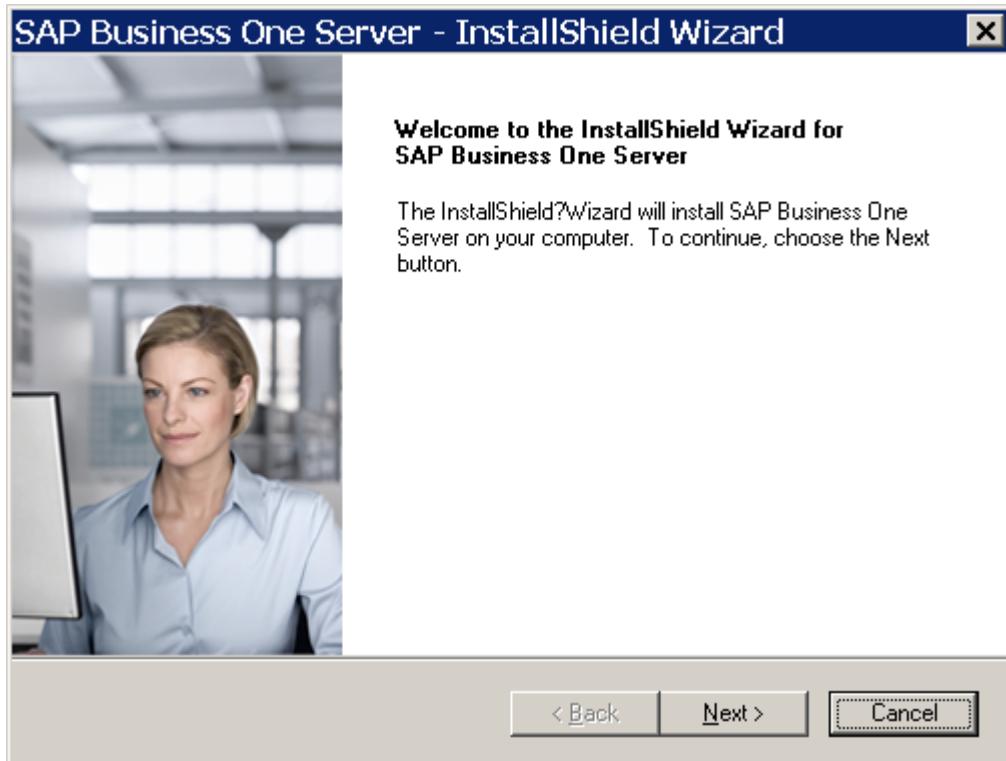
#### Procedure

1. In the *Server Components* window, you can see that the installed *Server Tools* option is marked as installed now. To continue with the SAP Business One server installation, select the *SAP Business One Server* checkbox.

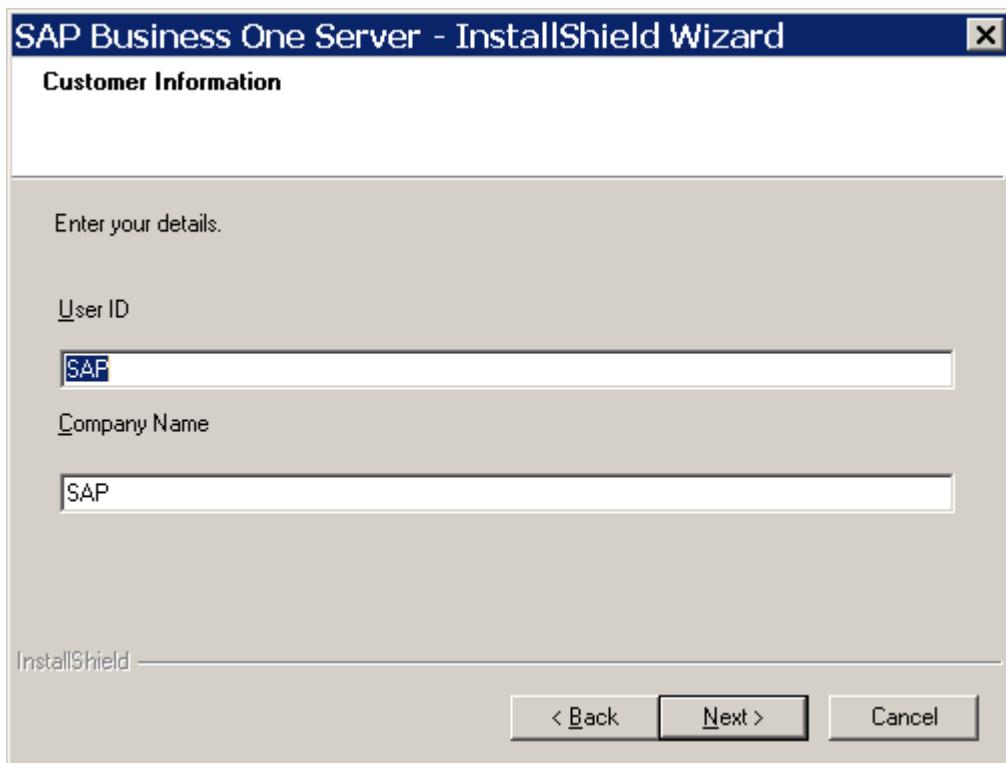
Choose the *Install* button.



2. In the *Welcome* window, to continue, choose the *Next* button.



3. In the *Customer Information* window, specify your user ID and company name, and then choose the *Next* button.



4. If your license server is installed on a different machine, the *License Authentication* window appears; otherwise, proceed to step 5.

In the *License Authentication* window, specify the license server information you defined in the server tools installation.

Make sure you do not use the following entries in the *License Server* field:

- **localhost**
- **(local)**
- **“.”**
- **127.0.0.1**

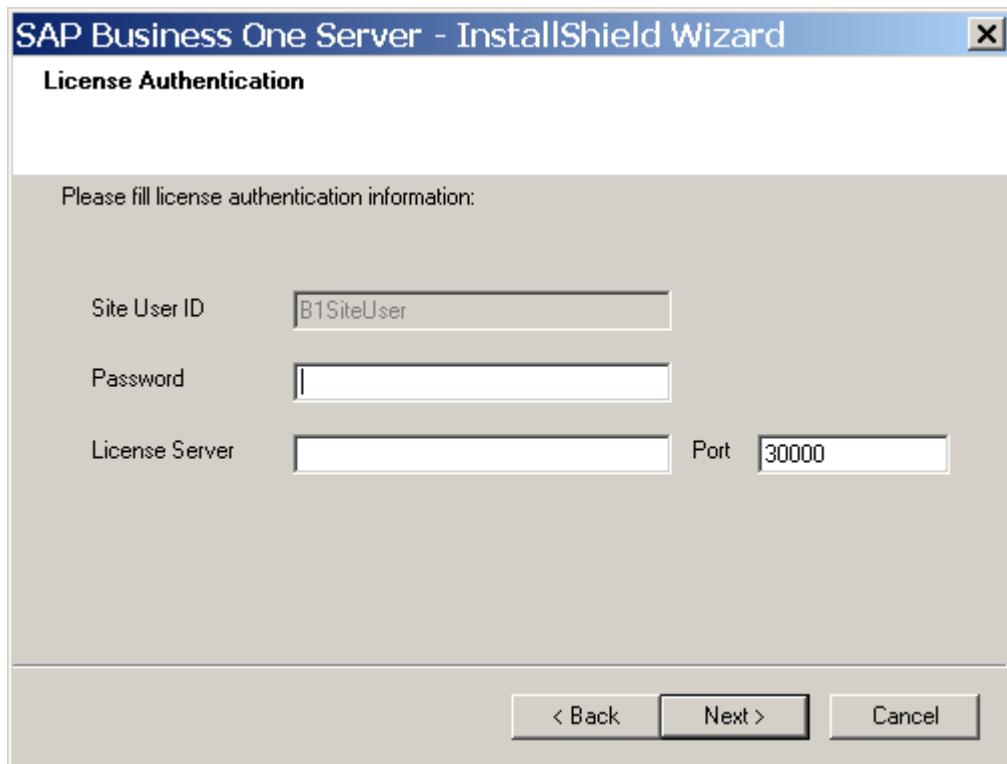
Choose the *Next* button.

If you have problems specifying the license server address, use the IP address of the license server.

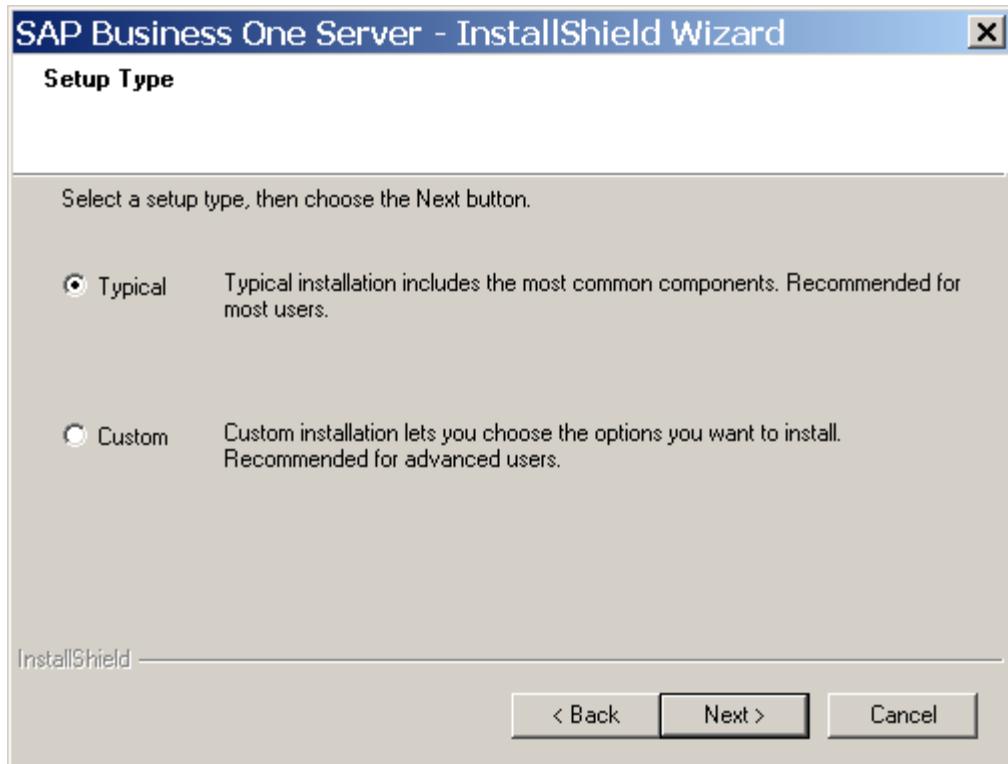


#### CAUTION

Use standard ports. Changing the ports can affect the installation of the components that follows this installation. This rule applies to the installation of all the server and client components.

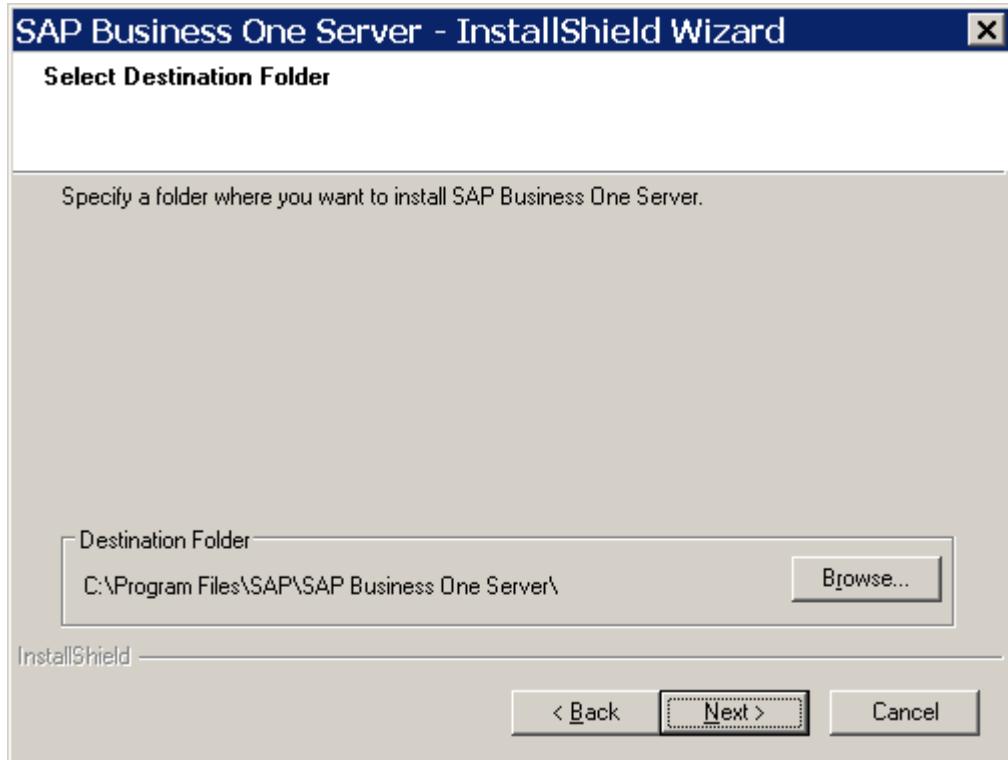


5. In the *Setup Type* window, select a setup type from those listed below, and then choose the *Next* button.
  - *Typical*: lets you install all components. If you select the *Typical* radio button, proceed to step 7.
  - *Custom*: lets you view all the installation options so you can choose the options you want to install.

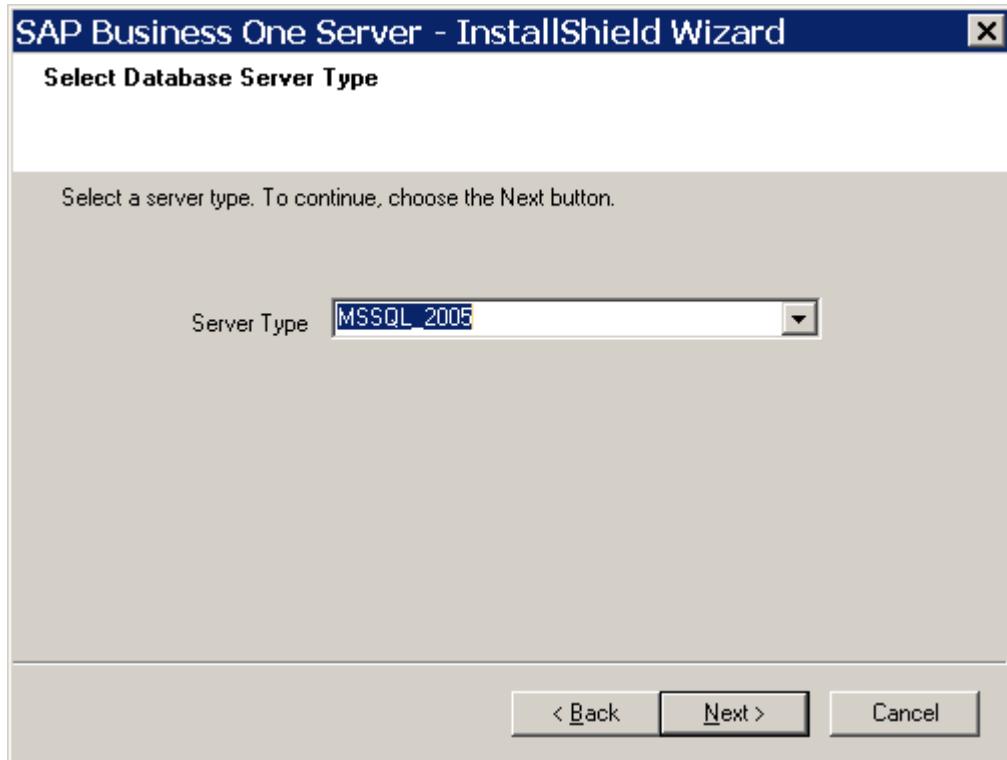


6. In the *Select Destination Folder* window, do one of the following:

- To accept the default installation location for SAP Business One server components, choose the *Next* button.
- To select a different location, choose the *Browse* button. In the *Choose Folder* window, specify a directory, and then choose the *Next* button.



7. In the *Select Database Server Type* window, in the *Server Type* dropdown list, select the database type installed on the server machine and choose the *Next* button.



8. In the *Database Server Logon* window, specify the following database server connection settings:

- *Server Name* – Specify the server machine name.



#### Note

If specifying a machine name does not work, try the IP address of the server machine. Be sure the format is consistent with what you have defined for the license server.



#### CAUTION

Make sure that in the *Server Name* field, the name of the computer on which you installed Microsoft SQL Server does not contain special characters, such as: "&","<",">","\"", or "'".

To check or correct your computer name, proceed as follows:

- i. Choose *Start* → *Control Panel* → *System*.
- ii. In the *System Properties* window, select the *Computer Name* tab.
- iii. In the *Computer description* field, check the computer name.
- iv. To correct the computer name, choose the *Change* button.
- v. In the *Computer Name/Domain Changes* window, specify a new name for the machine and choose the *OK* button.

- *Database Username* – Enter the user name you defined during the installation of Microsoft SQL Server 2005 or Microsoft SQL Server 2008.

Make sure you do not use the following entries in the *Database Username* field:

- **localhost**
- **(local)**
- **“.”**
- **127.0.0.1**
- *User ID* – specify the user ID to access the Microsoft SQL server.
- *Password* – specify the password to access the Microsoft SQL server.

Choose the *Next* button.



#### Note

If you used the SAP Business One silent installation for Microsoft SQL Server, then the default user ID and password values are: **sa** and **SAPB1Admin** (case sensitive).

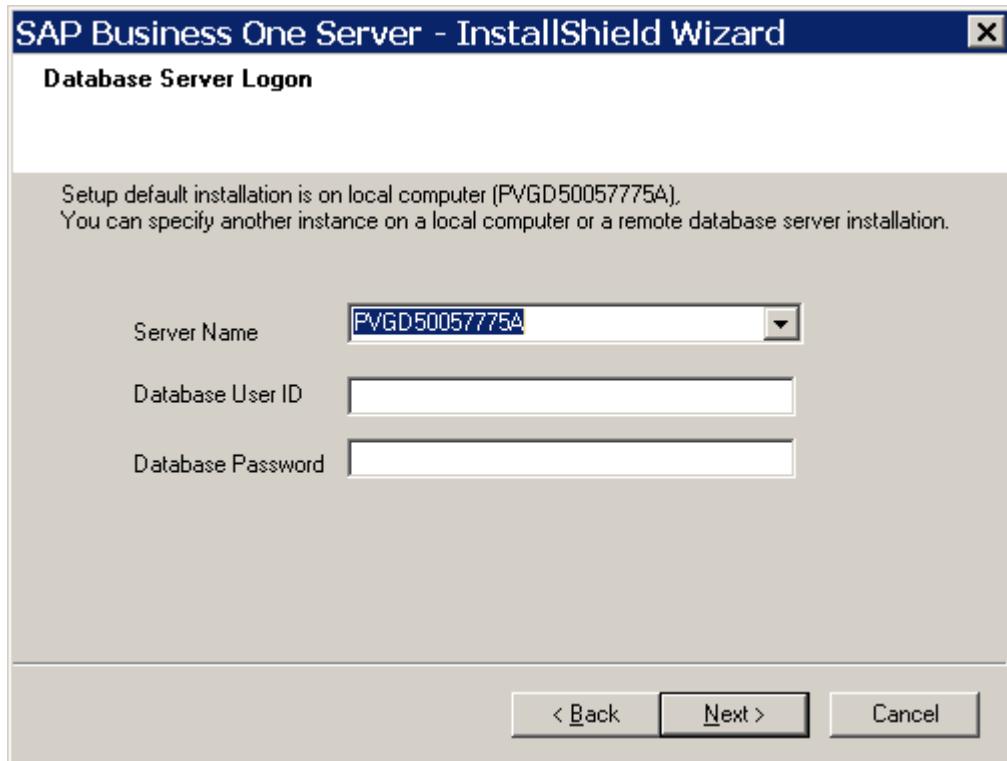


#### Recommendation

After installing SAP Business One, you should change the **sa** password or create a new database administrator. For more information, see [Changing the sa Login Password and Creating an Alternative User](#) (section 3.2.1.2).

Check your password and user ID, and make sure that you have installed an SQL Server database server.

If you selected the *Typical* installation option in step 5, proceed to step 10.



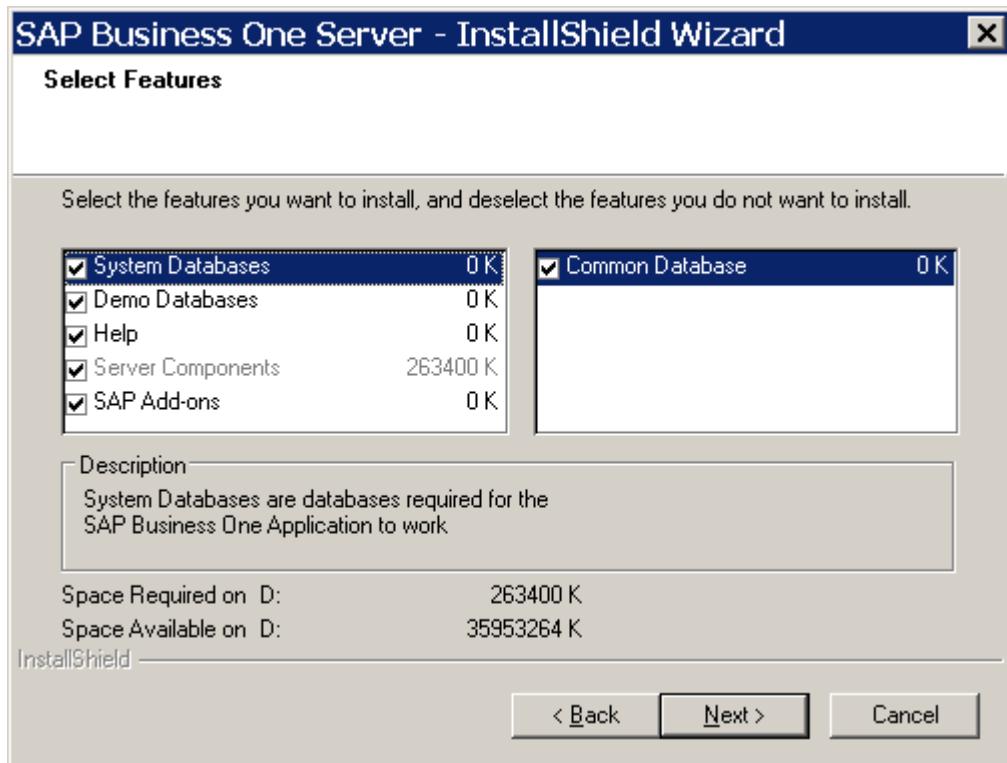
9. In the *Select Features* window, select the features you want to install from among the following:

- *System Databases* installs the application's common database (SBO-COMMON). This database is visible only at the Microsoft SQL level, not in the list of companies at the application level. It is updated every time you install a new patch or perform an upgrade to SAP Business One. The default values in the common database are available for every new database that is created.
- *Demo Databases* installs demonstration databases in the selected localizations.
- *Help* installs the help database and help files in the selected languages.
- *Server Components* installs shared network objects.
- *SAP Add-ons* registers the SAP add-ons on the server machine.

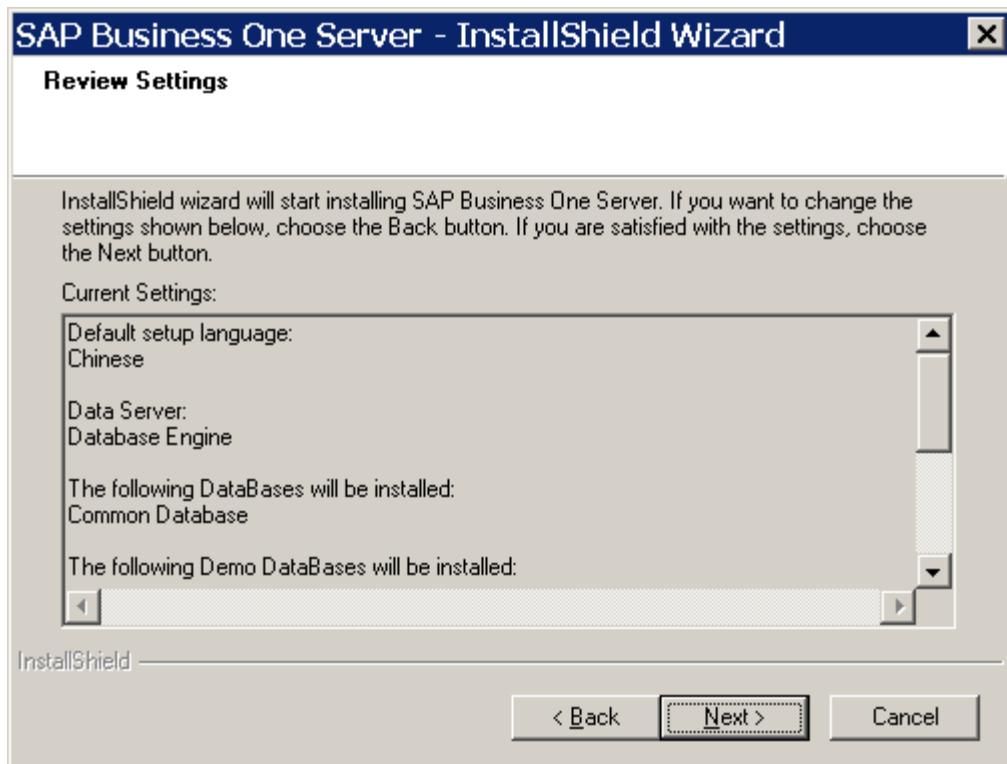


#### Note

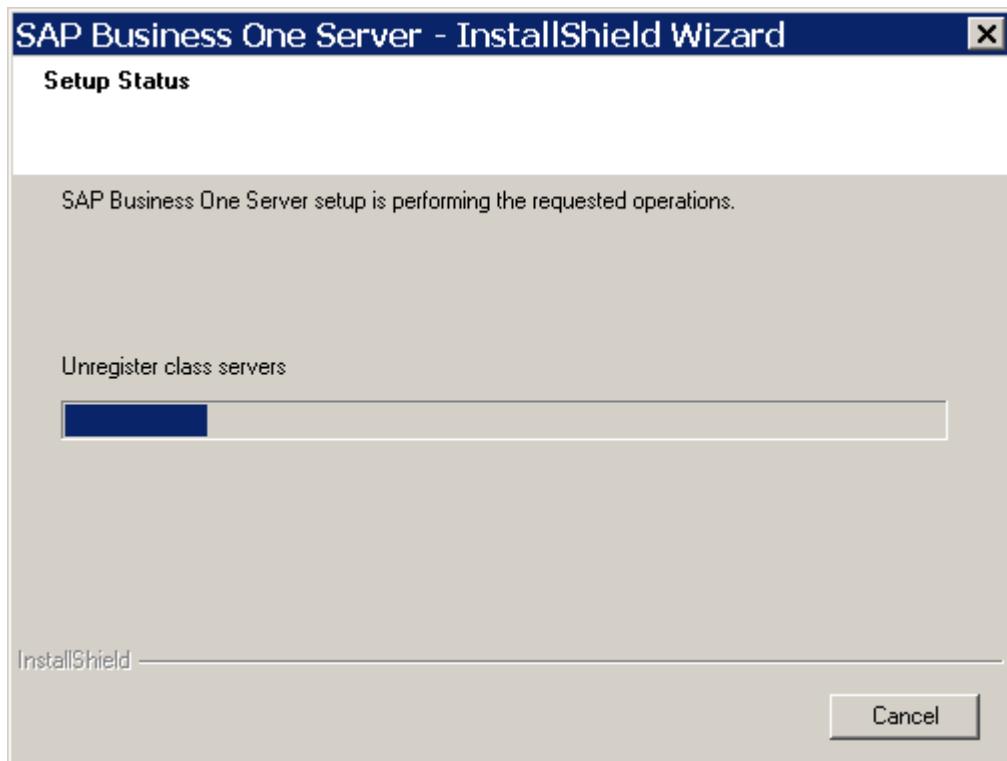
If you want to install SAP add-ons, you must select the *SAP Add-ons* checkbox in the *Select Features* window. For information, see [Assigning SAP Business One Add-Ons](#).



10. In the *Review Settings* window, do one of the following:
  - To confirm all the settings, choose the *Next* button.
  - To change any settings, choose the *Back* button to return to previous windows.



11. In the *Setup Status* window, the setup wizard begins copying files, which may take several minutes, depending on the number of demo databases you selected for installation and on your machine performance.



12. In the *Setup Complete* window, choose the *Finish* button.

If you selected the *Typical* installation option in step 5 of the server installation procedure, proceed to step 2 in [Installing the Microsoft Outlook Integration Server](#).



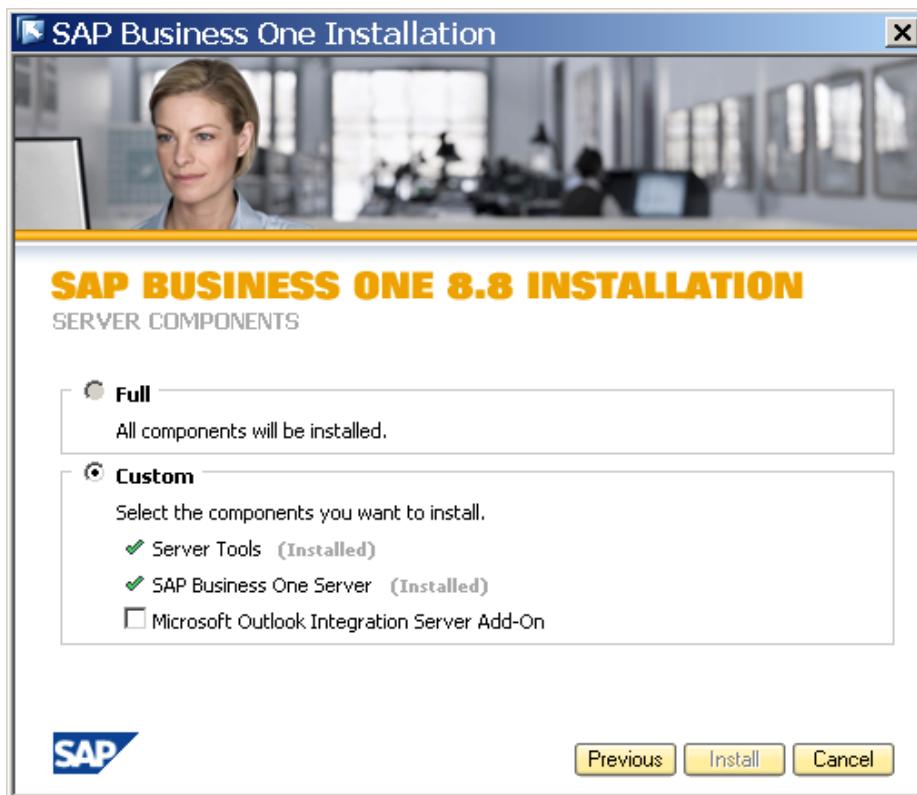
### 3.2.1.5. Installing the Microsoft Outlook Integration Server

This setup installs Microsoft Office templates required for the Microsoft Outlook integration server add-on.

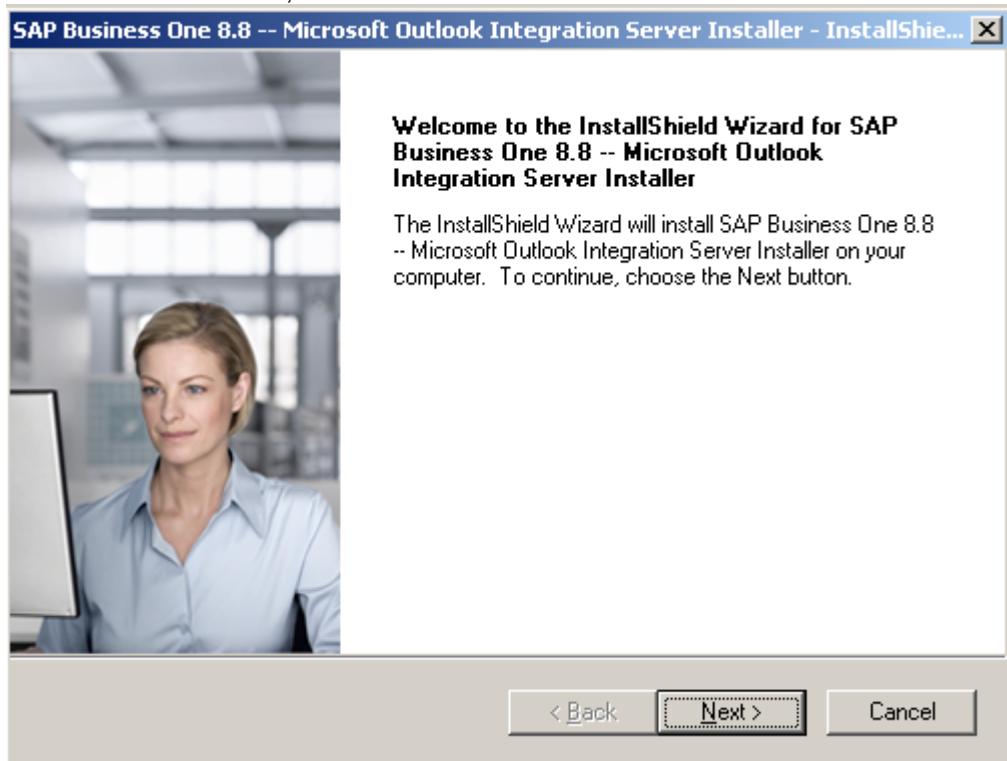
#### Procedures

1. In the *Server Components* window, you can see that the *Server Tools (Installed)* and the *SAP Business One Server (Installed)* checkboxes are inactive now. To continue with the Microsoft Outlook integration add-on server installation, select the *Microsoft Outlook Integration Server Add-On* checkbox.

Choose the *Install* button.

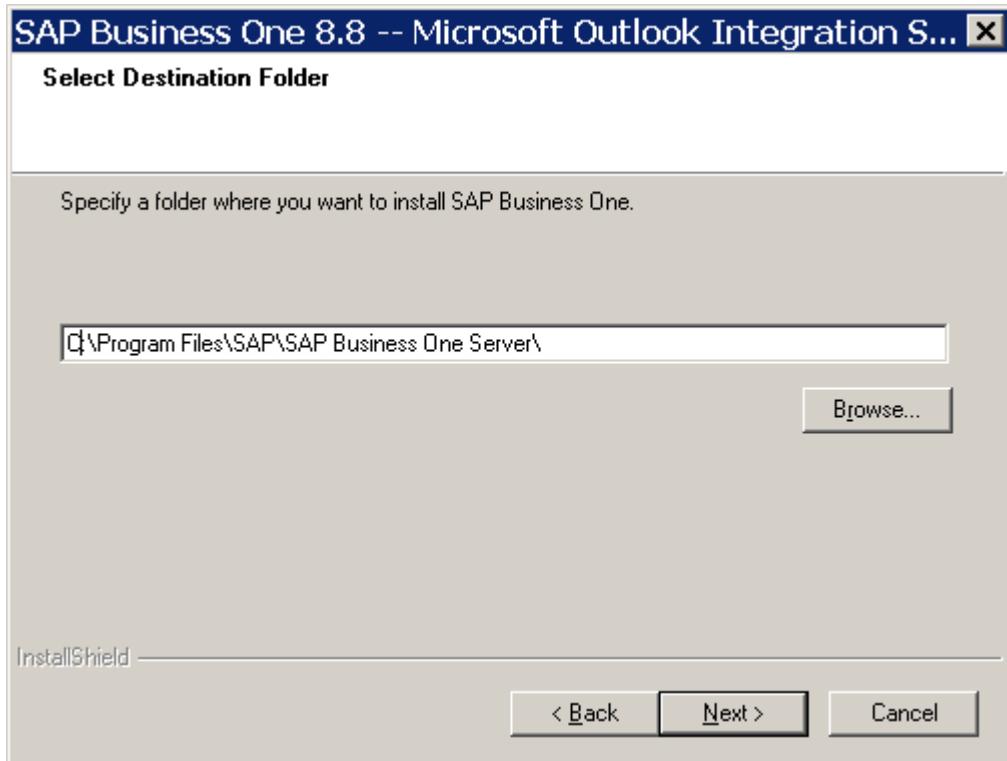


2. In the *Welcome* window, choose the *Next* button.

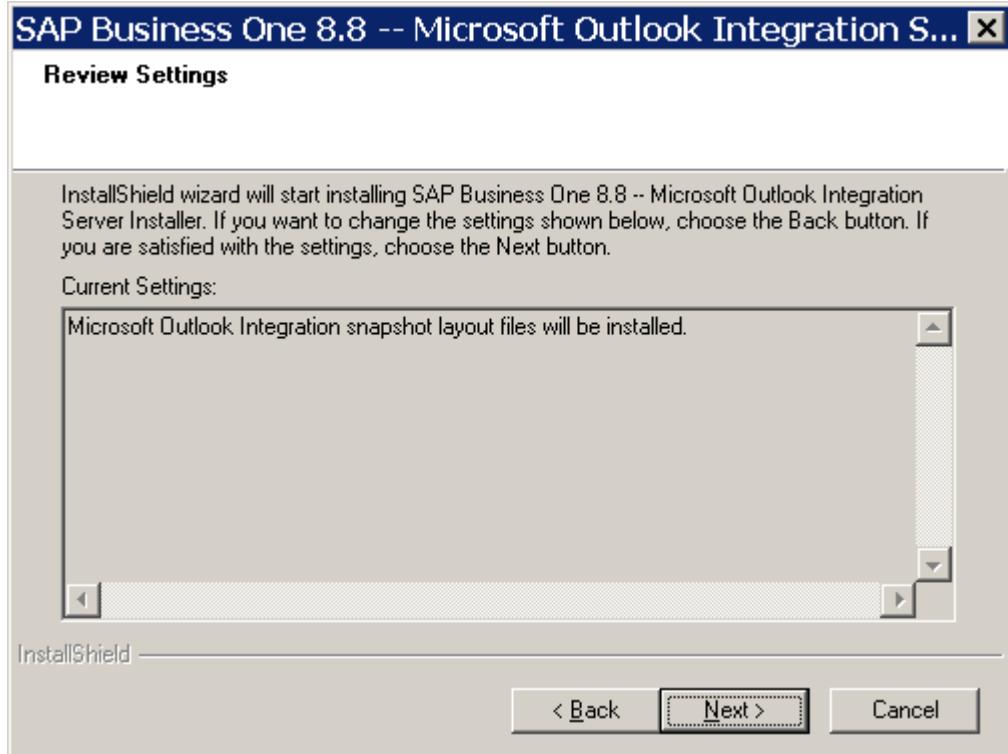


3. In the *Select Destination Folder* window, do one of the following:

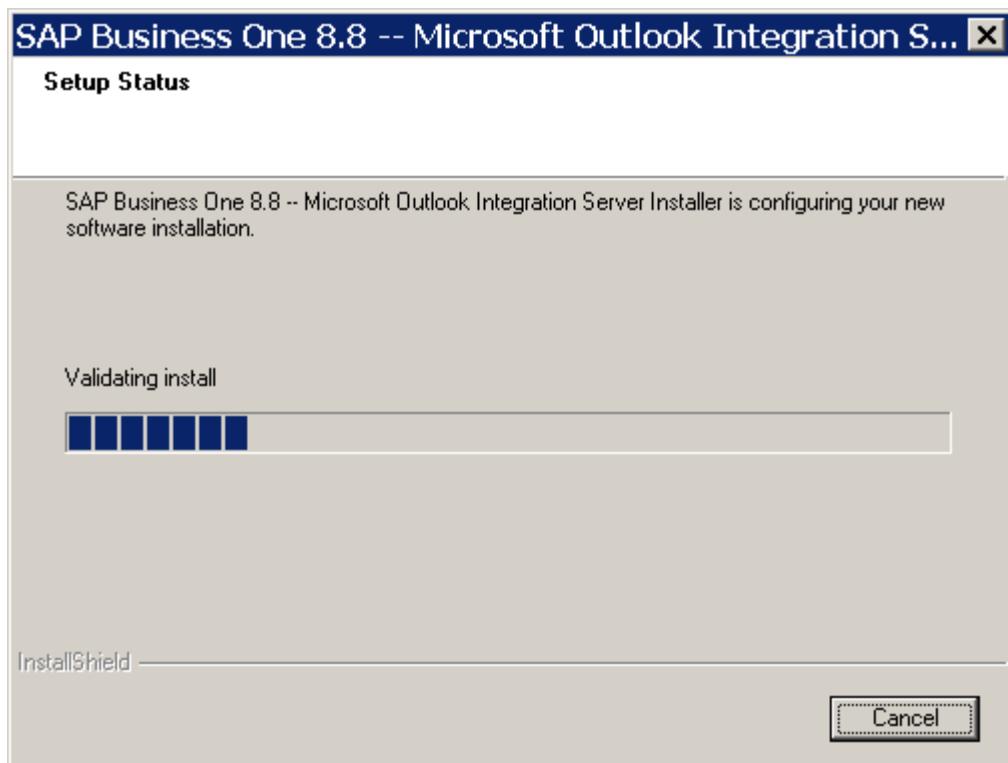
- To confirm the default installation location, choose the *Next* button.
- To change the default location, choose the *Browse* button to locate a directory, and then choose the *Next* button.



4. In the *Review Settings* window, review the settings you have made, and then proceed as follows:
  - To continue, choose the *Next* button.
  - To change the settings, choose the *Back* button to return to the previous steps.



5. The *Setup Status* window displays the installation program performing the required actions.



6. In the *Complete* window, do one of the following:

- To continue with the installation of remote support platform for SAP Business One, proceed as follows:
  - i. Select the checkbox *Install remote support platform for SAP Business One*, and then choose the *Finish* button.  
This launches the installation wizard of remote support platform for SAP Business One. For more information, see the document *Administrator's Guide to Remote Support Platform for SAP Business One* in the product DVD.
  - ii. After you have installed remote support platform for SAP Business One, proceed to [Performing SAP Business One Installations on Client Machines](#).
- To install SAP Business One without installing remote support platform for SAP Business One, deselect the checkbox *Install the Remote Support Platform for SAP Business One*, and then choose the *Finish* button.



7. In the *Server Components* installation summary window, choose the *Finish* button.



### 3.2.2. Performing SAP Business One Installations on Client Machines

You can install the client application on every workstation that needs to run SAP Business One.

Depending on the required configuration, you can decide which optional components to install on each workstation.

The client components include:

- SAP Business One client application and DI API.
- Mail and fax services - installs messaging services that enable sending fax and mail messages from SAP Business One. For more information, see [Configuring the Fax Service](#).
- Software Development Kit - installs documentation and samples for the SAP Business One SDK.
- Data Transfer Workbench - installs a tool for migrating legacy data into SAP Business One.
- Microsoft Outlook integration add-on standalone version - installs a version of Outlook integration that lets you use this add-on without the SAP Business One client application.

For more information, see [Installing SAP Business One in Standalone Mode](#).

#### Prerequisites

- The installation machine complies with all hardware and software requirements, as detailed in *SAP Business One System Requirements*, available at <http://channel.sap.com/sbo/documentation>.
- You have installed Microsoft Excel.

- You have installed Crystal Reports Basic 2008 for SAP Business One so as to be able to use the SAP Business One data source on the client machine. . This data source provides SAP Business One tables in a hierarchical tree organized according to the SAP Business One modules.

For information about installing Crystal Reports Basic 2008 for SAP Business One, see [Installing Crystal Reports](#), or see the installation file on the Crystal Reports Basic 2008 for SAP Business One CD, which is shipped together with the SAP Business One DVD..

### 3.2.2.1. Installing the SAP Business One Client

#### Procedure

1. Insert the DVD in the DVD drive of the workstation or machine on which you want to install the client and wait for the installation program to appear.  
Alternatively, you can install the client application from `../SAP/SAP Business One Server/B1_SHR/Clients/setup.exe`.
2. In the installation window, select the *Client* radio button.

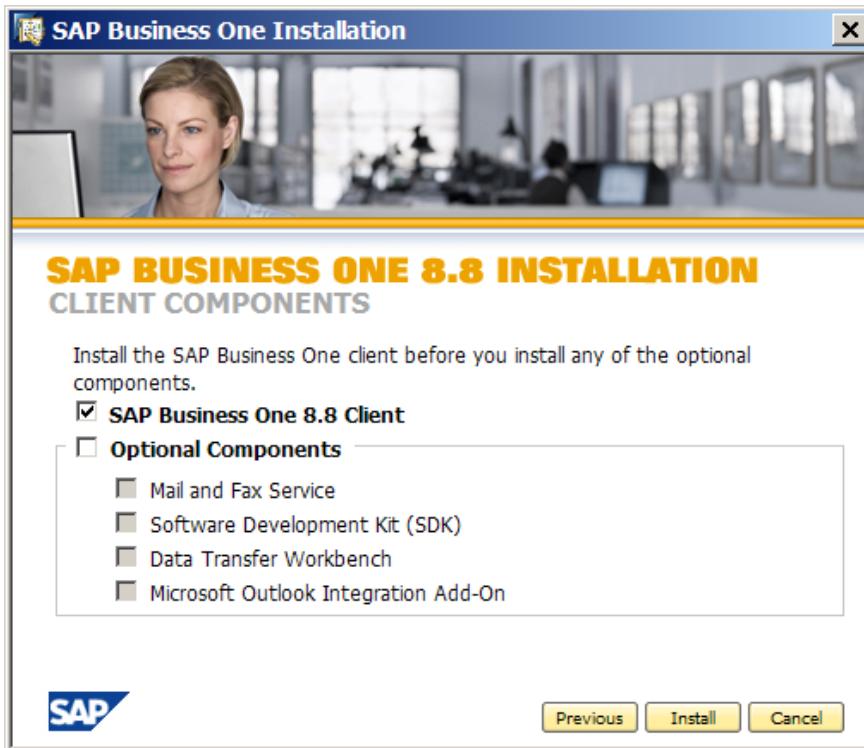


To continue with the client installation, make sure that the license server is running. For information on how to start up your license server, see [Configuring the License Manager](#)**Error!** [Reference source not found.](#)



3. In the *Client Components* window, select the *SAP Business One 8.8 Client* checkbox and the optional components you want to install.

Choose the *Install* button.



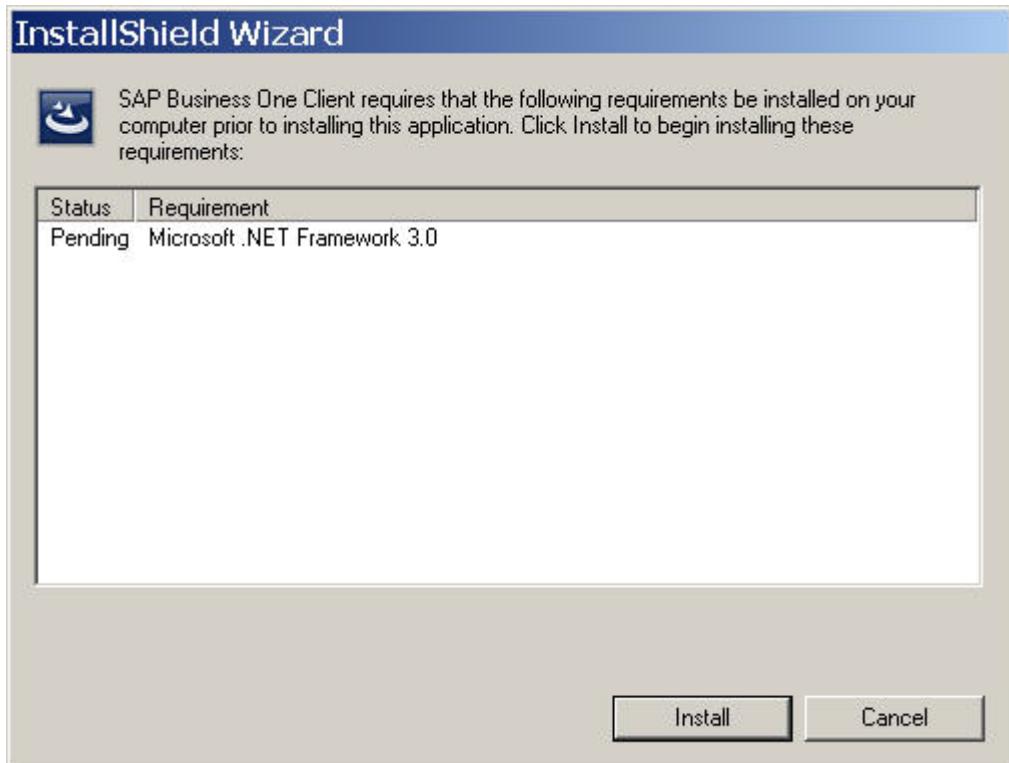
4. In the .Net 3.0 installation window, choose the *Install* button.



If you do not want to install .Net 3.0 at this time, you are given the option to proceed without this installation after you choose the *Install* button.



If you proceed with the .Net 3.0 installation, it may take a few minutes for the installation process to finish.



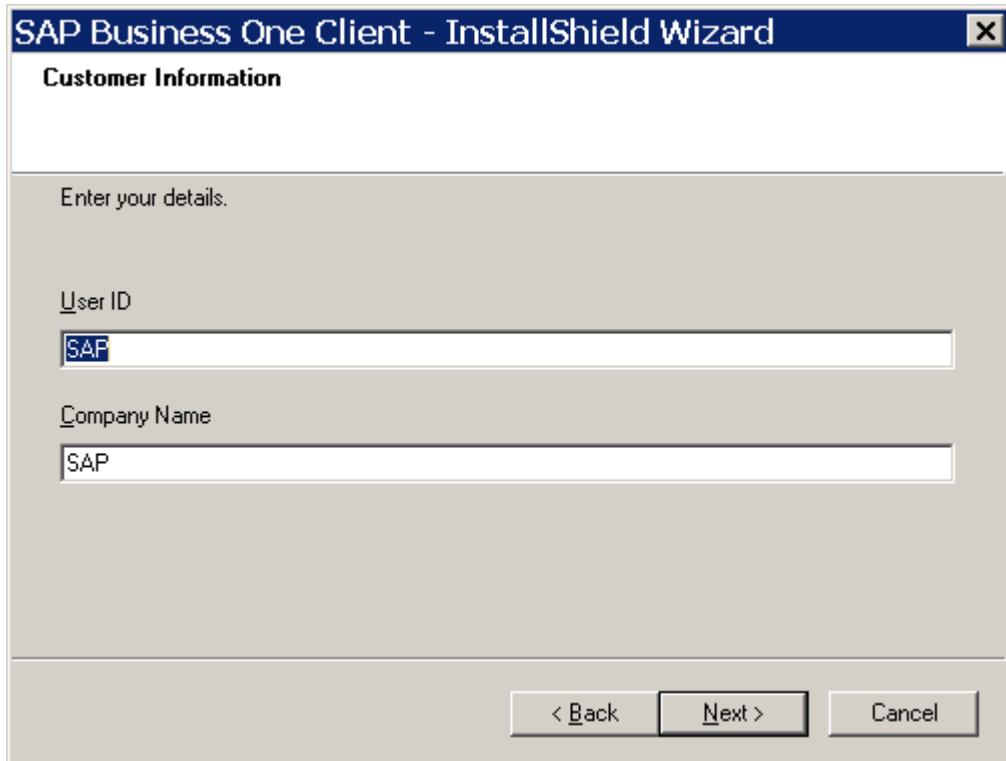
5. If Crystal Reports Viewer is not installed on the current machine, InstallShield wizard performs a silent installation. For more information about installing Crystal Reports Basic 2008 for SAP Business One on the client computer, see *Installing Crystal Reports*.

The SAP Business One data sources and *Add-ins* menu for Crystal Reports Basic 2008 for SAP Business One are installed after Crystal Reports Viewer or Crystal Reports Basic 2008 for SAP Business One is installed.

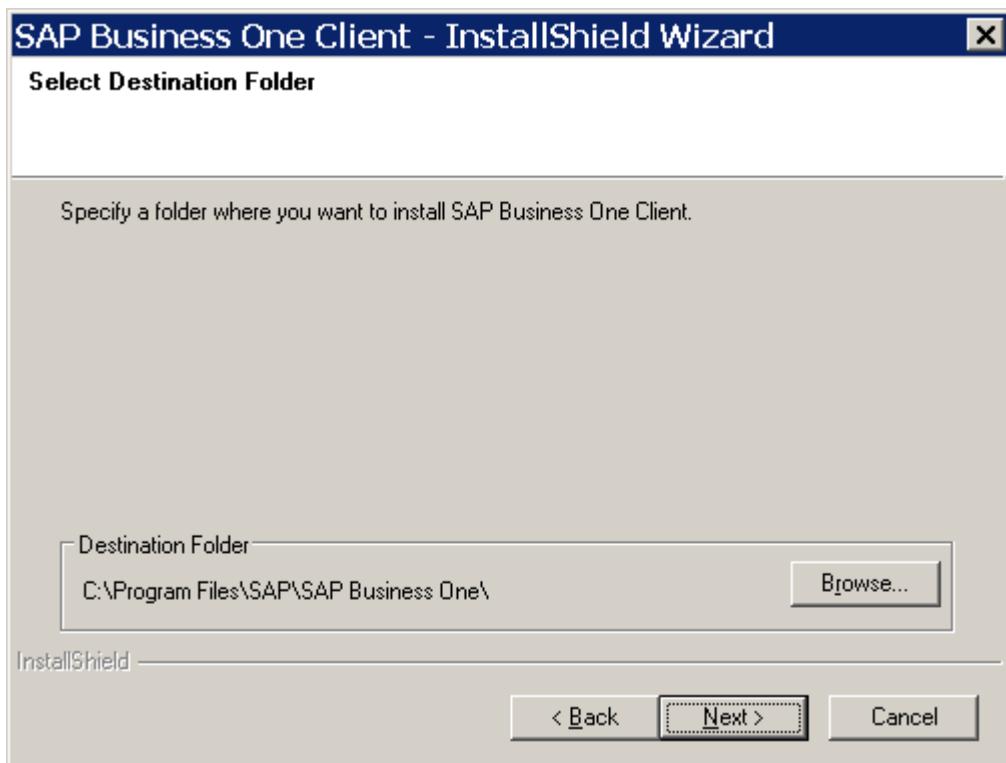
6. In the *Welcome* window, choose the *Next* button.



7. In the *Customer Information* window, specify the user ID and company name.



8. In the *Select Destination Folder* window, to accept the default location, choose the *Next* button. To select a different location, choose the *Browse* button.



9. In the *Select Program Folder* window, make sure SAP Business One is displayed in both fields, and then choose the *Next* button.

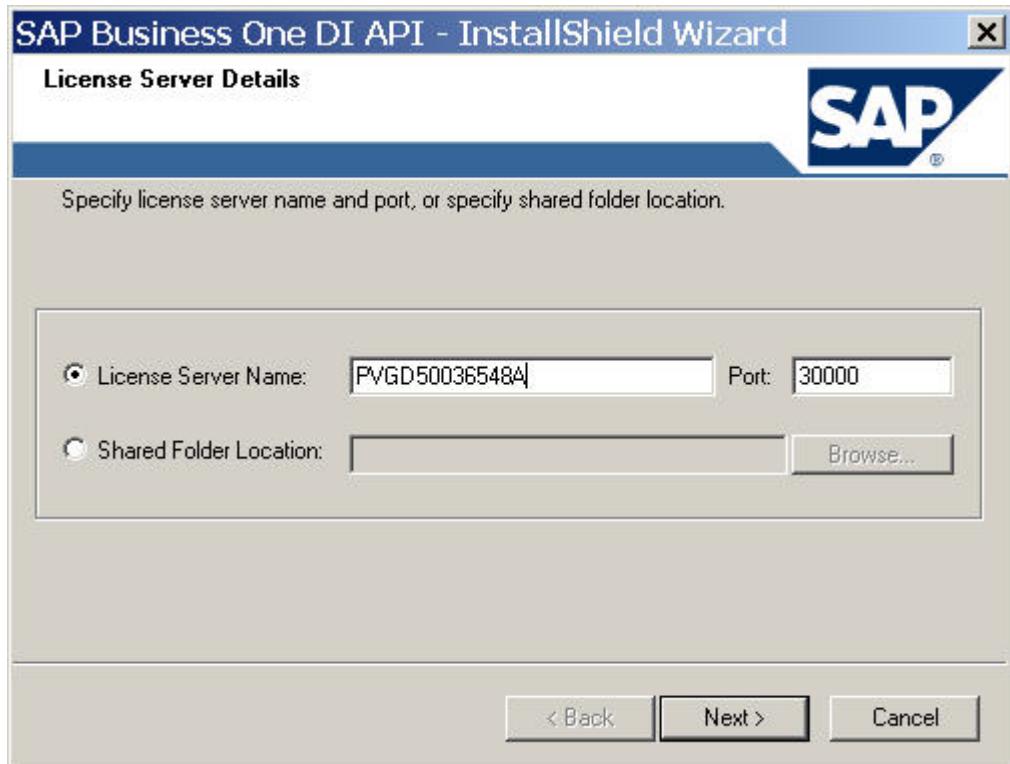


10. In the *License Server Details* window, specify the license server name.

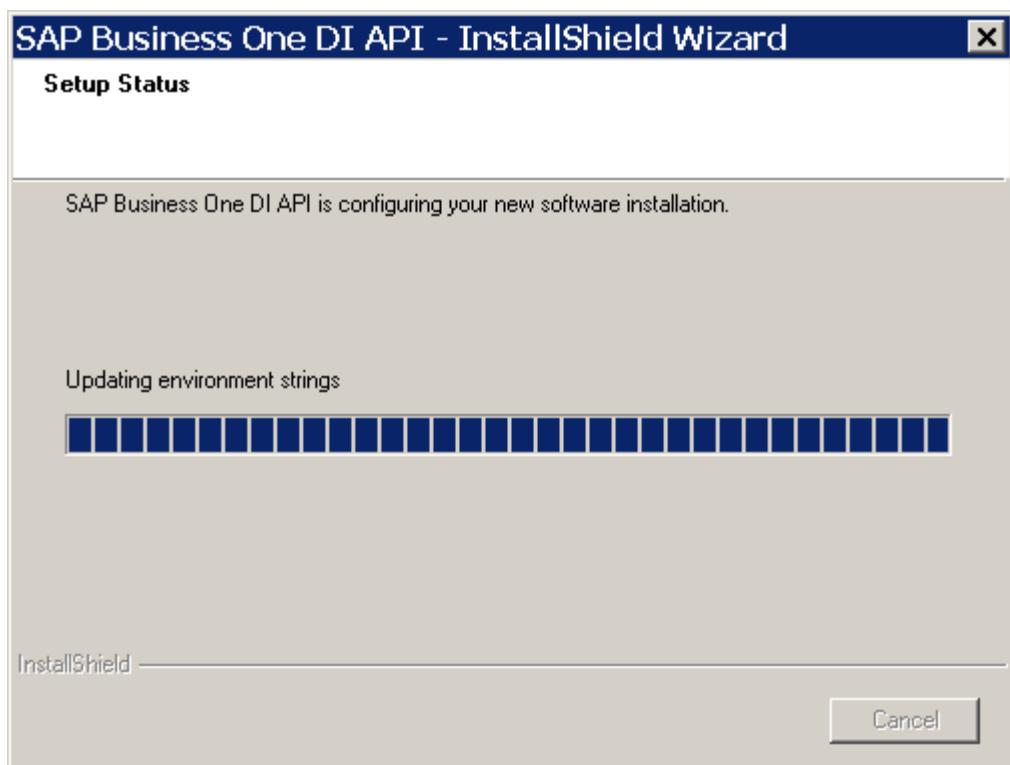
Make sure you do not use the following entries in the *License Server* field:

- localhost**
- (local)**
- “.”**
- 127.0.0.1**

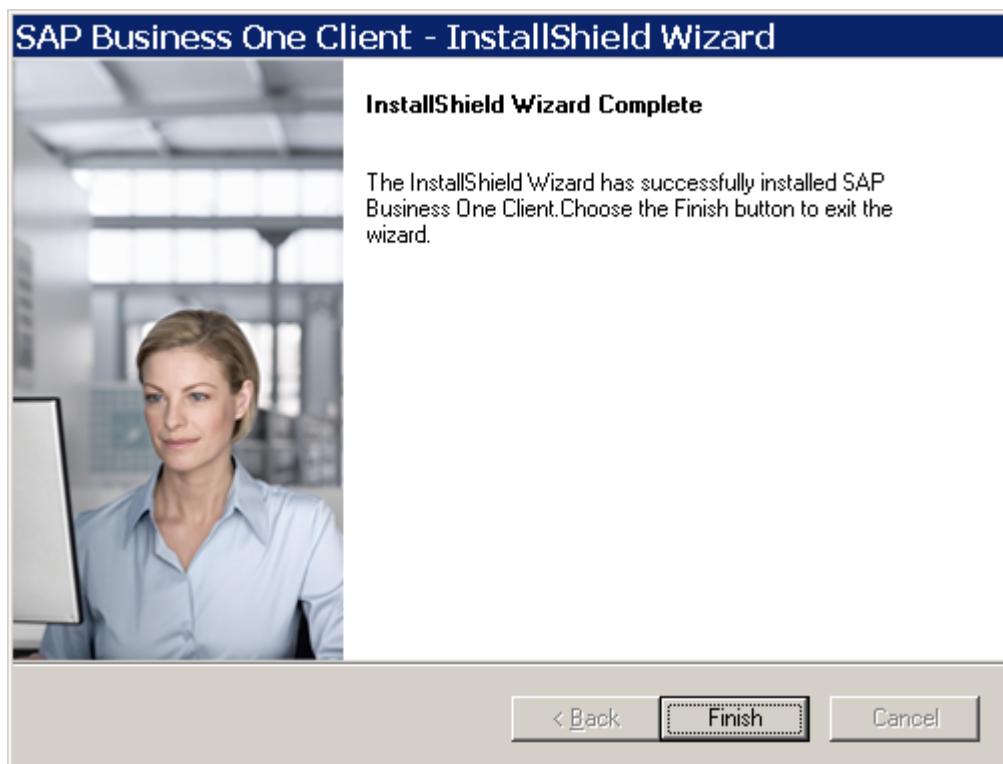
Choose the *Next* button.



11. In the *Setup Status* window, the installation wizard performs the required system actions.



12. In the *Complete* window, choose the *Finish* button.

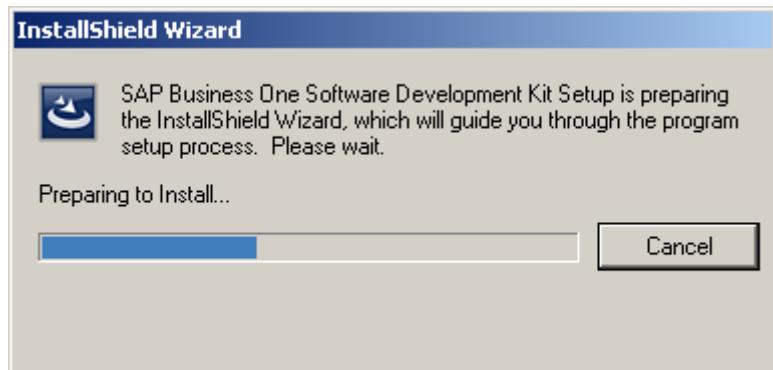


### 3.2.2.2. Installing SAP Business One SDK (Software Development Kit)

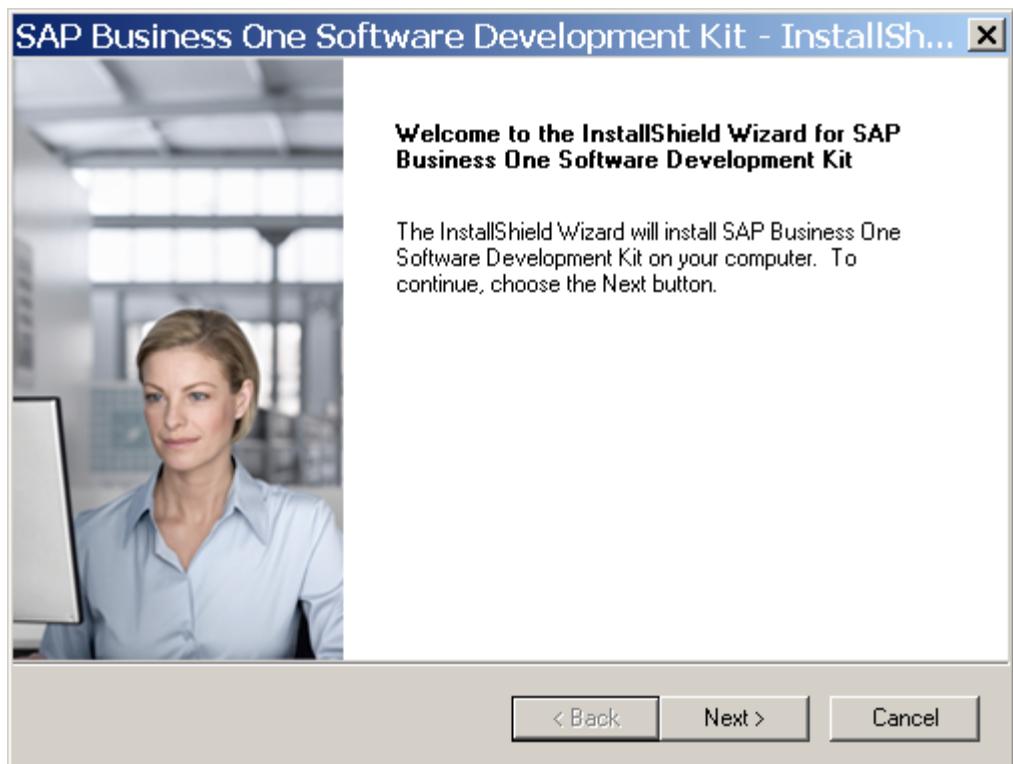


#### Note

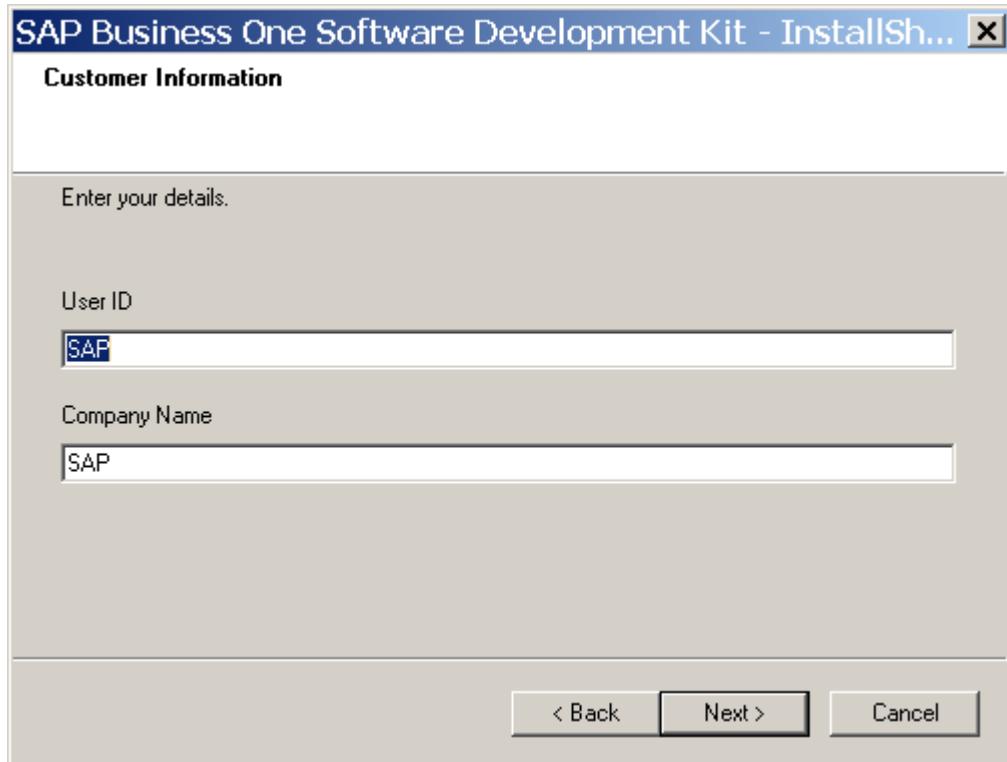
It may take a few minutes until the SDK setup wizard appears.



1. In the *Welcome* window, to continue, choose the *Next* button.



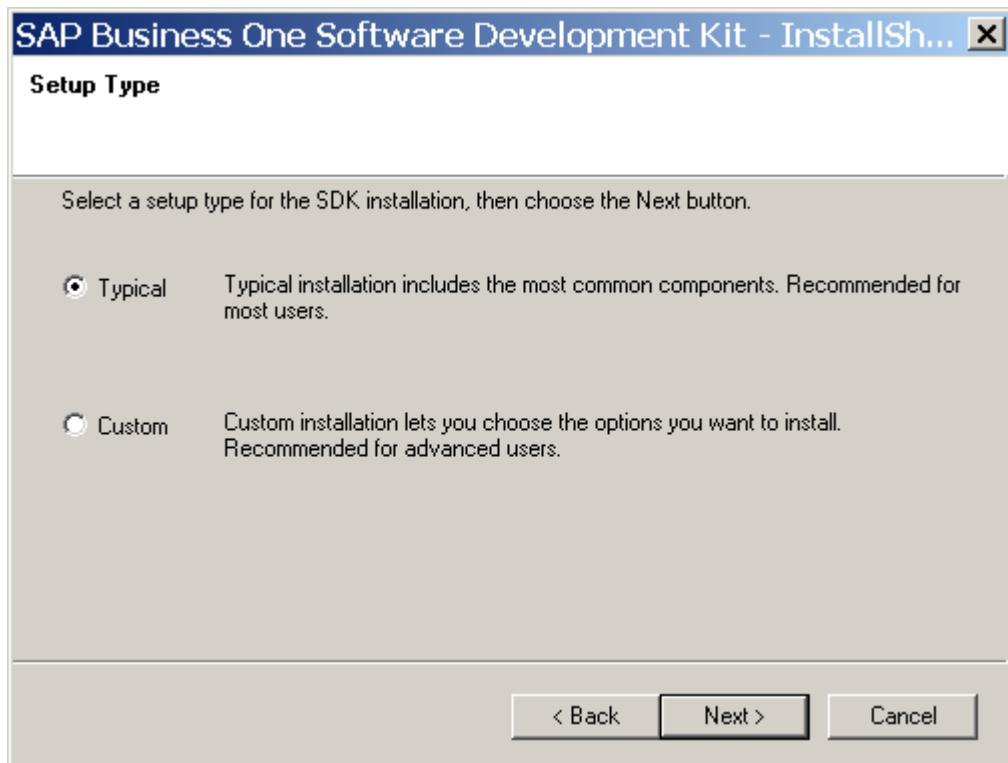
2. In the *Customer Information* window, specify the user ID and company name. Choose the *Next* button.



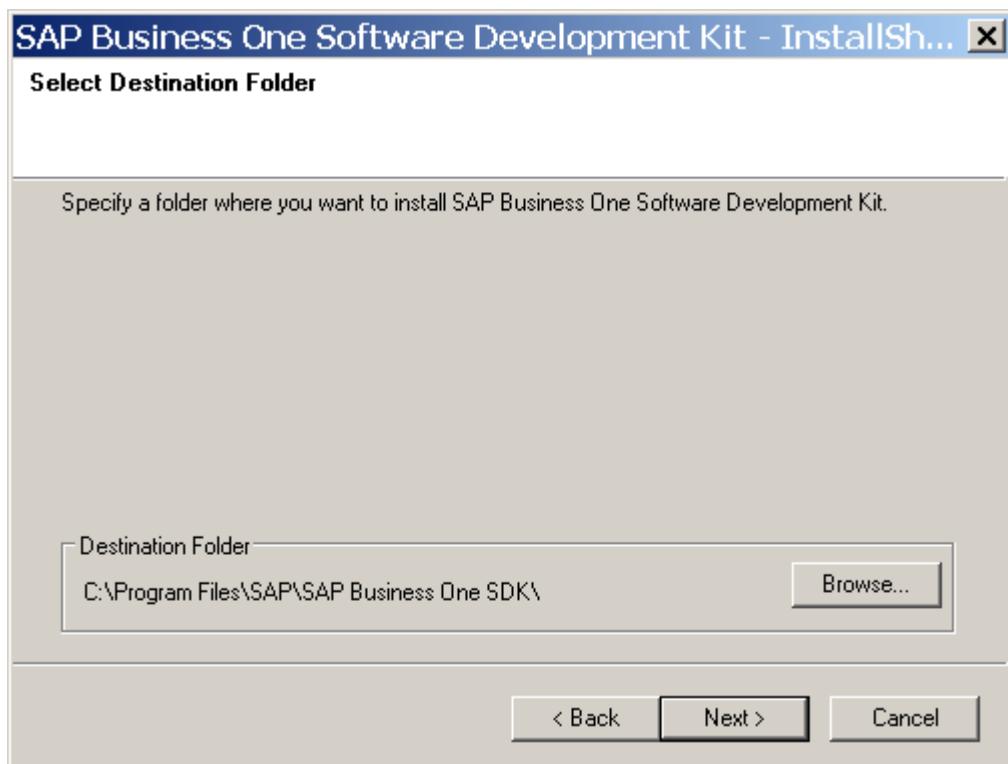
3. In the *Setup Type* window, do the following:

- To choose a custom installation in which you can select each option you want to install, select the *Custom* radio button.
- To perform a regular installation, select the *Typical* radio button.

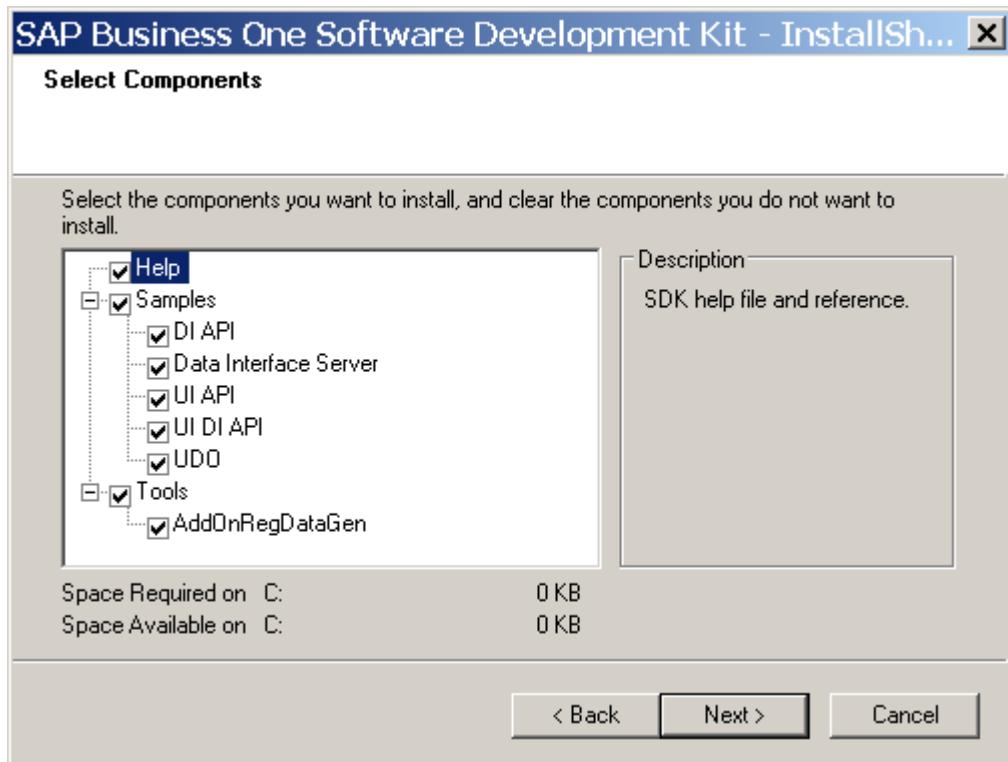
Choose the *Next* button. For a typical installation, to continue, proceed to step 6.



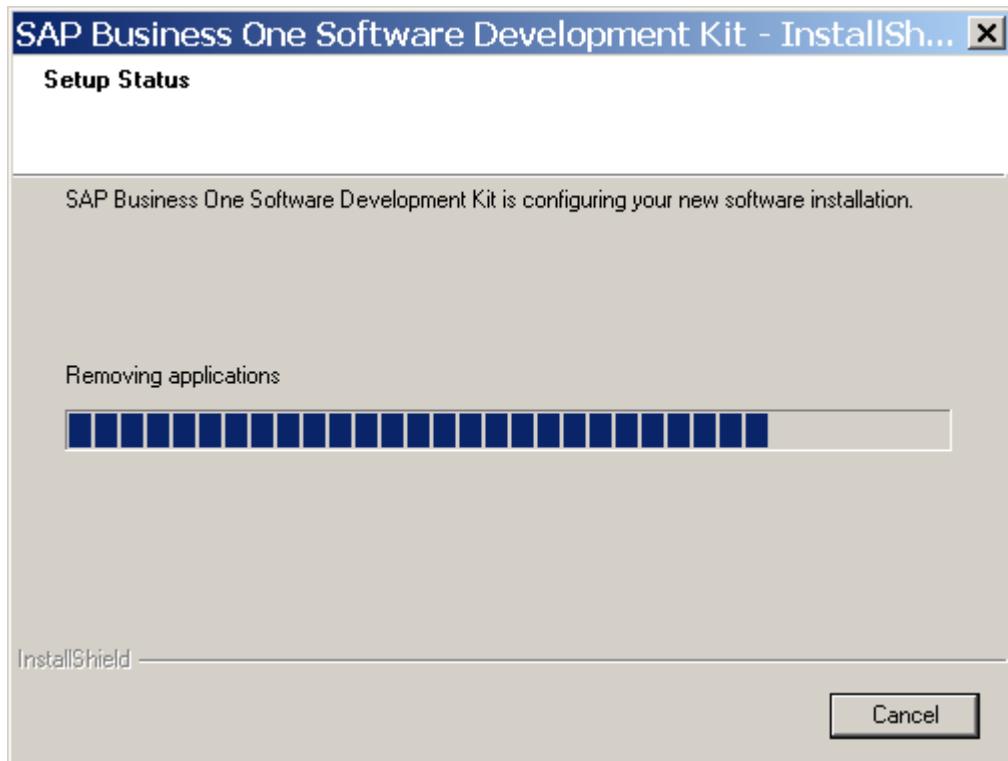
4. In the *Select Destination Folder* window, specify the folder in which you want to install SDK, and then choose the *Next* button.



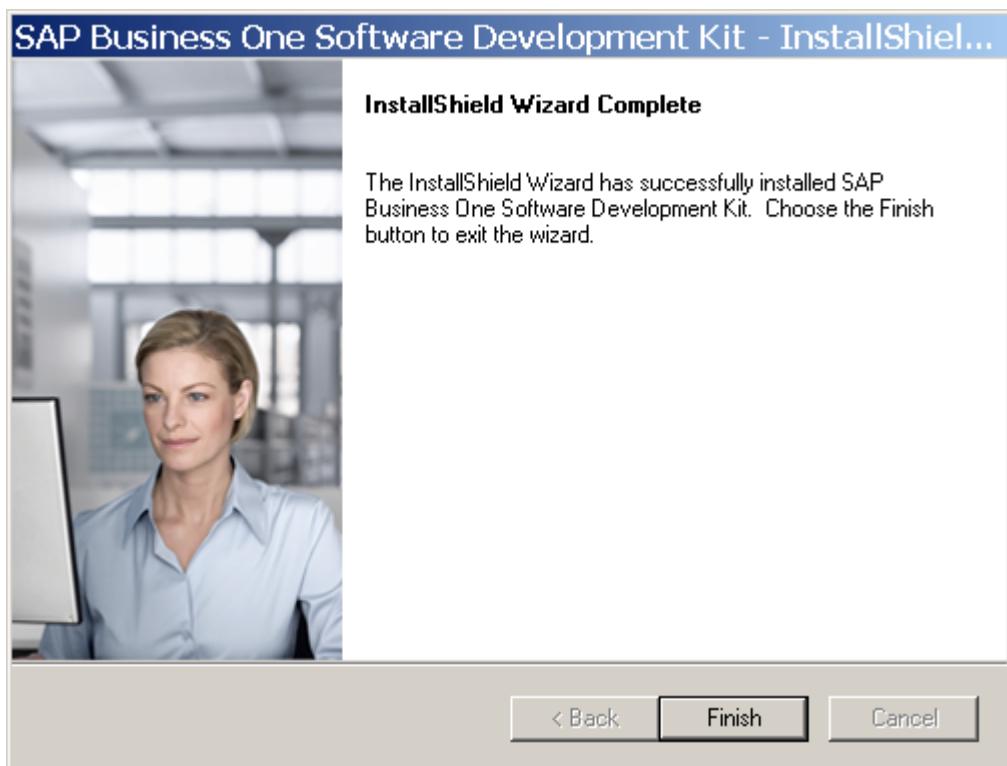
5. In the *Select Components* window, select each component you want to install and deselect those you do not want to install. Choose the *Next* button.



6. In the *Setup Status* window, wait for the system to perform the required actions.



7. In the *Complete* window, choose the *Finish* button.



### 3.2.2.3. Installing SAP Business One Data Transfer Workbench

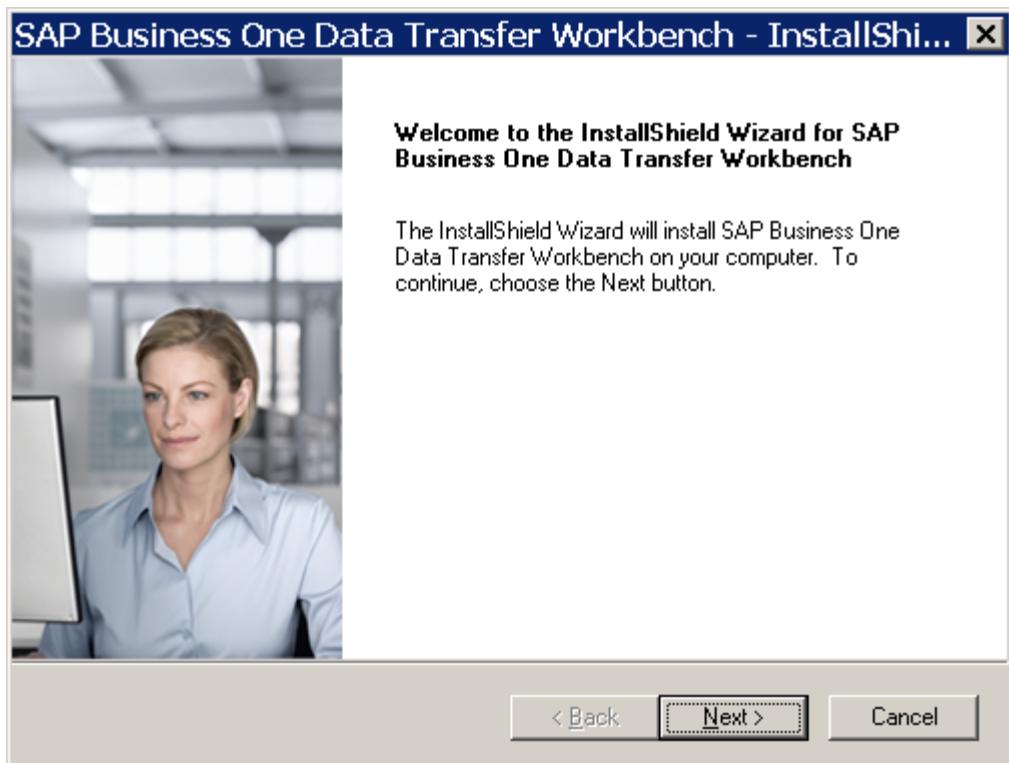


#### Note

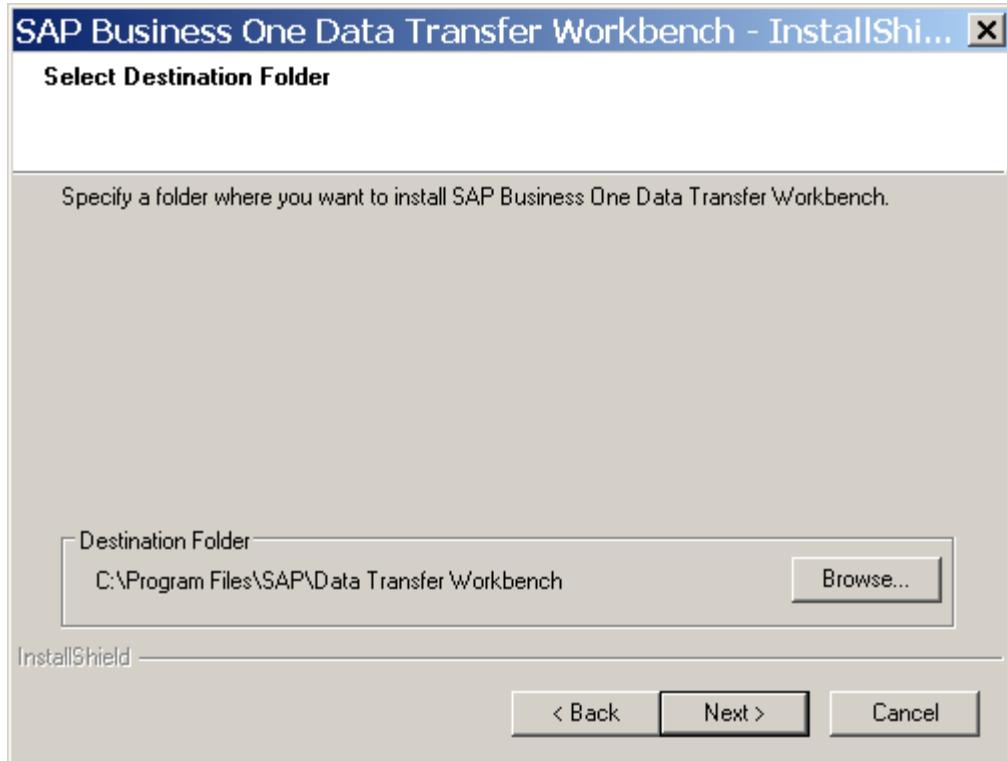
It may take a few minutes until the Data Transfer Workbench setup wizard appears.



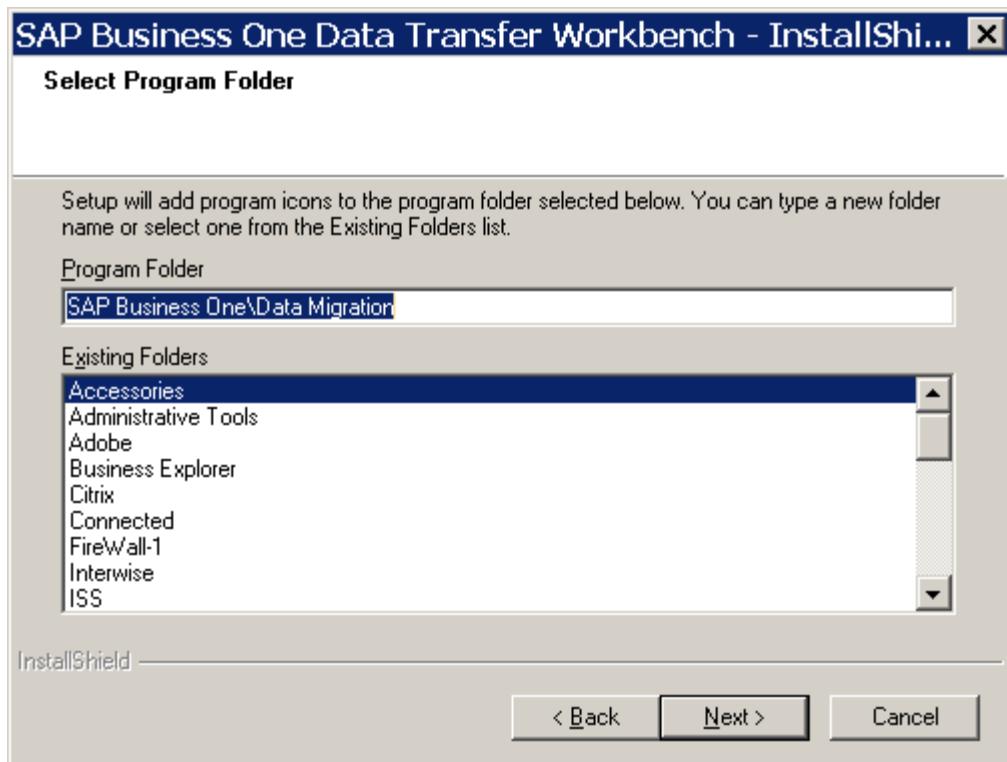
1. In the *Welcome* window, choose the *Next* button.



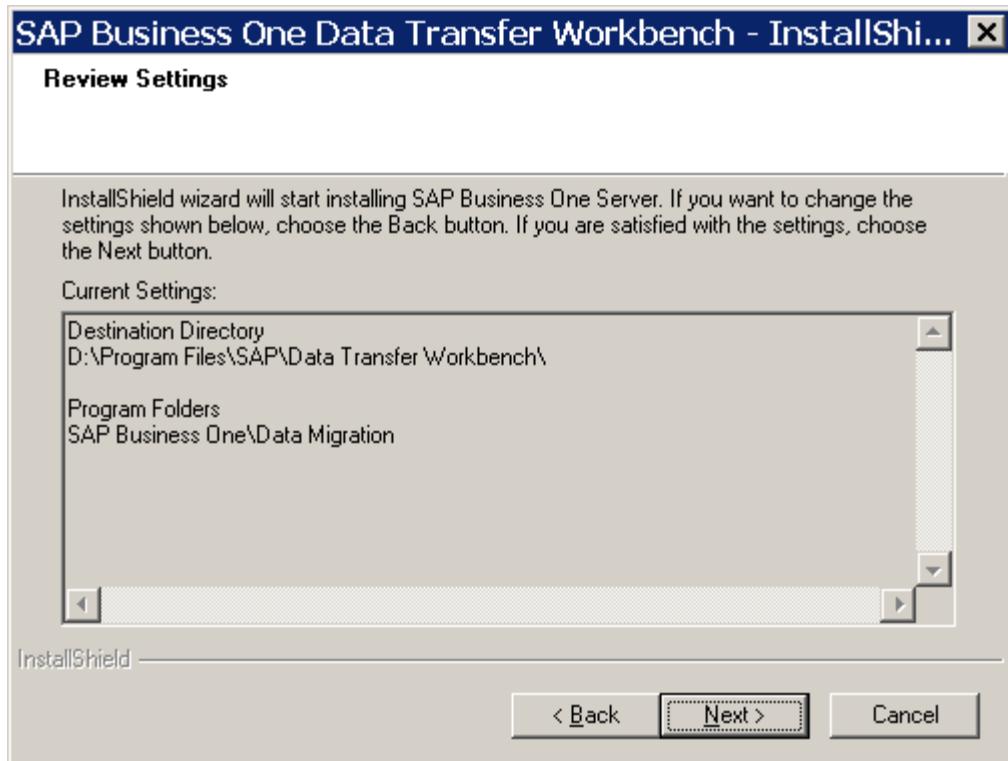
2. In the *Select Destination Folder* window, specify the folder in which you want to install Data Transfer Workbench.



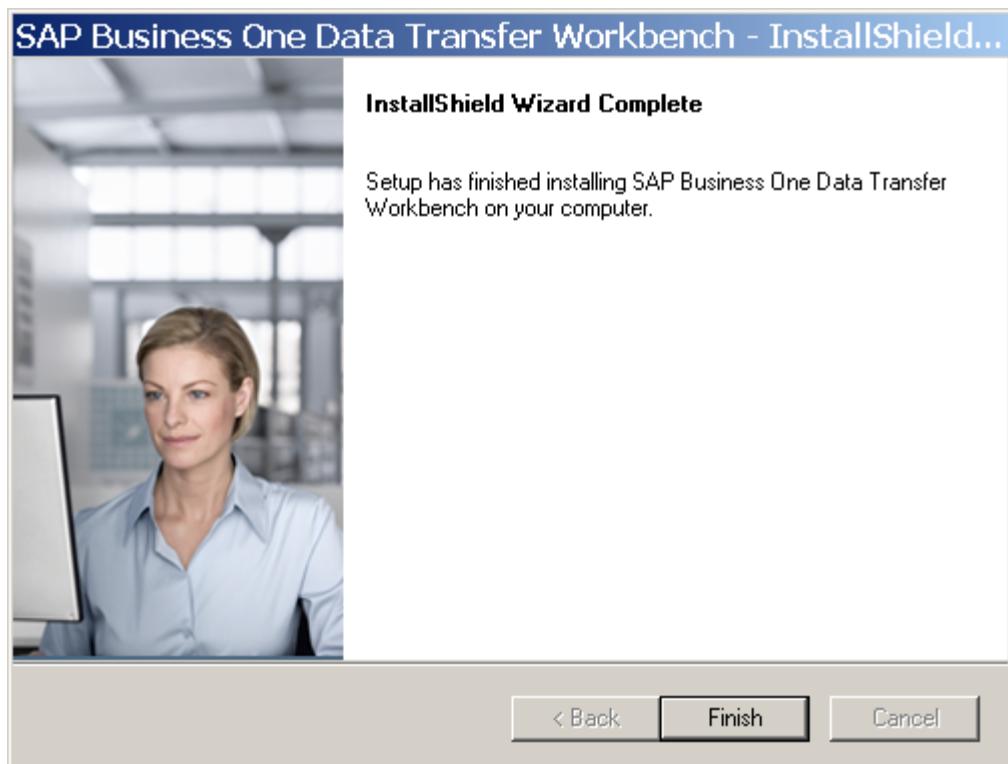
3. In the *Select Program Folder* window, specify the program folder you want to install for Data Transfer Workbench.



4. In the *Review Settings* window, review the settings you have made:
  - To continue, choose the *Next* button.
  - To change the settings, choose the *Back* button to return to the previous steps.



5. In the *Complete* window, choose the *Finish* button.



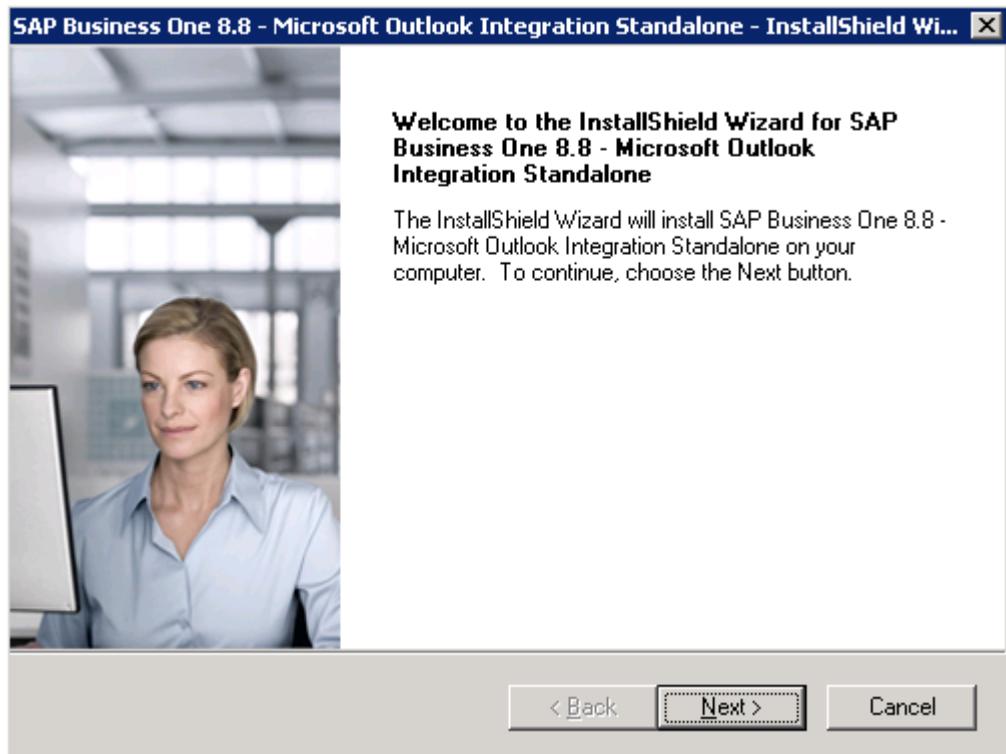
### 3.2.2.4. Installing the Microsoft Outlook Integration Add-On



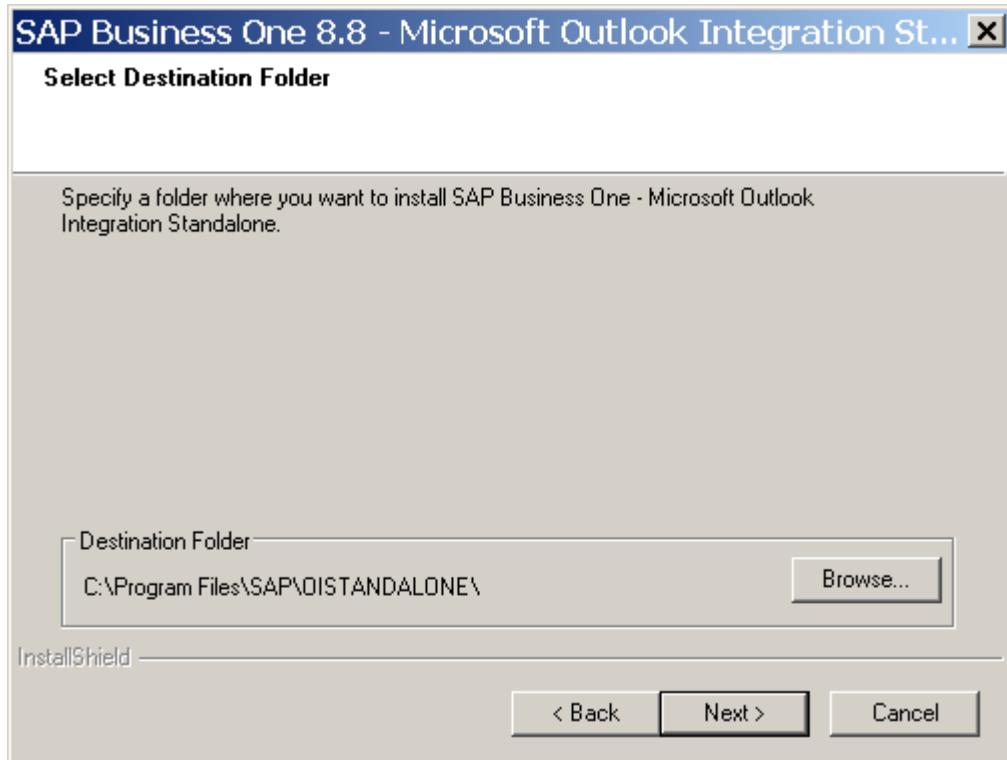
#### Note

It may take a few minutes for the setup wizard to launch the installation wizard for the Microsoft Outlook integration add-on.

1. In the *Welcome* window, choose the *Next* button.

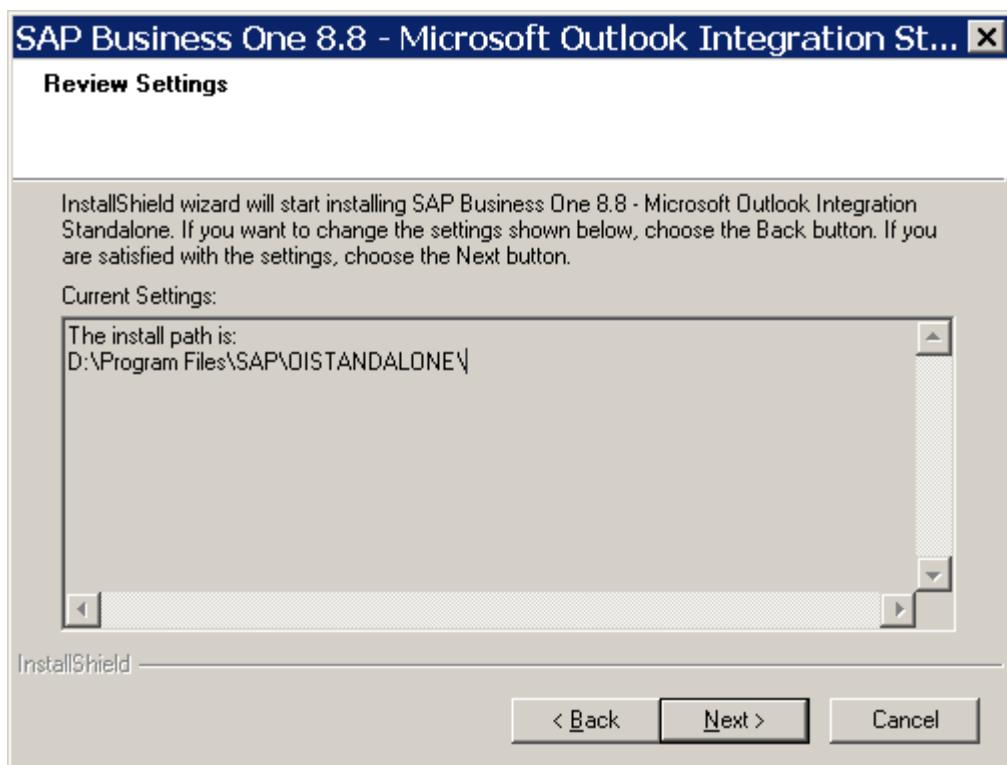


2. In the *Select Destination Folder* window, specify the folder in which you want to install the Microsoft Outlook integration add-on. Choose the *Next* button.

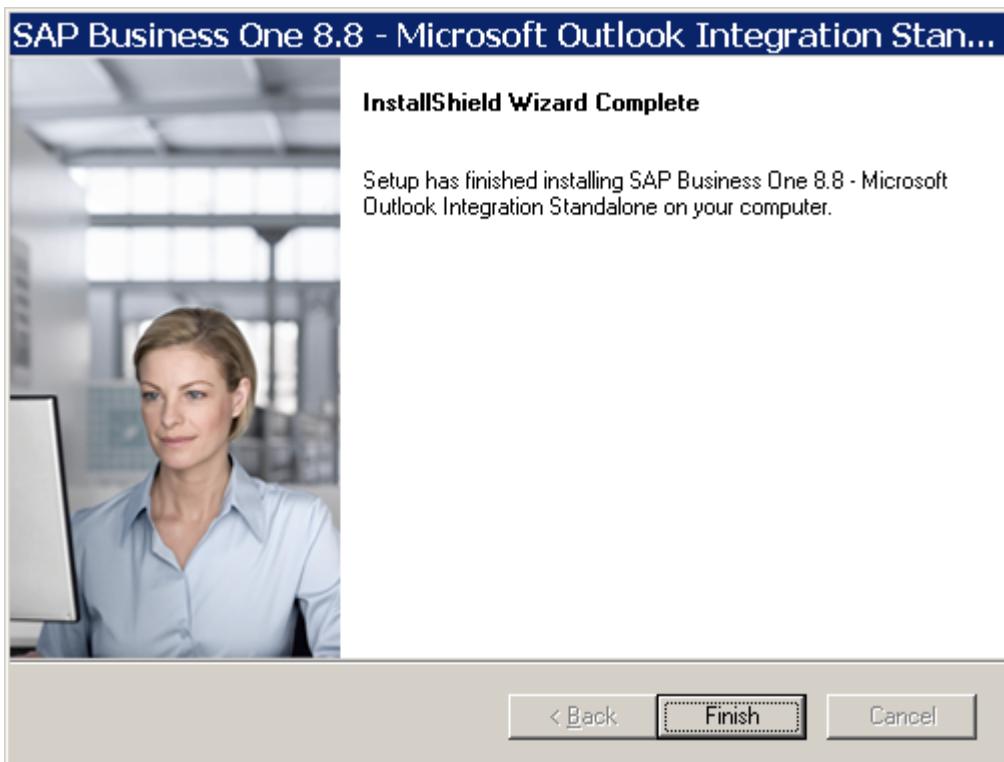


3. In the *Review Settings* window, review the settings you have made, then do one of the following:

- To continue, choose the *Next* button.
- To change the settings, choose the *Back* button to return to the previous pages.



4. In the *Complete* window, choose the *Finish* button.

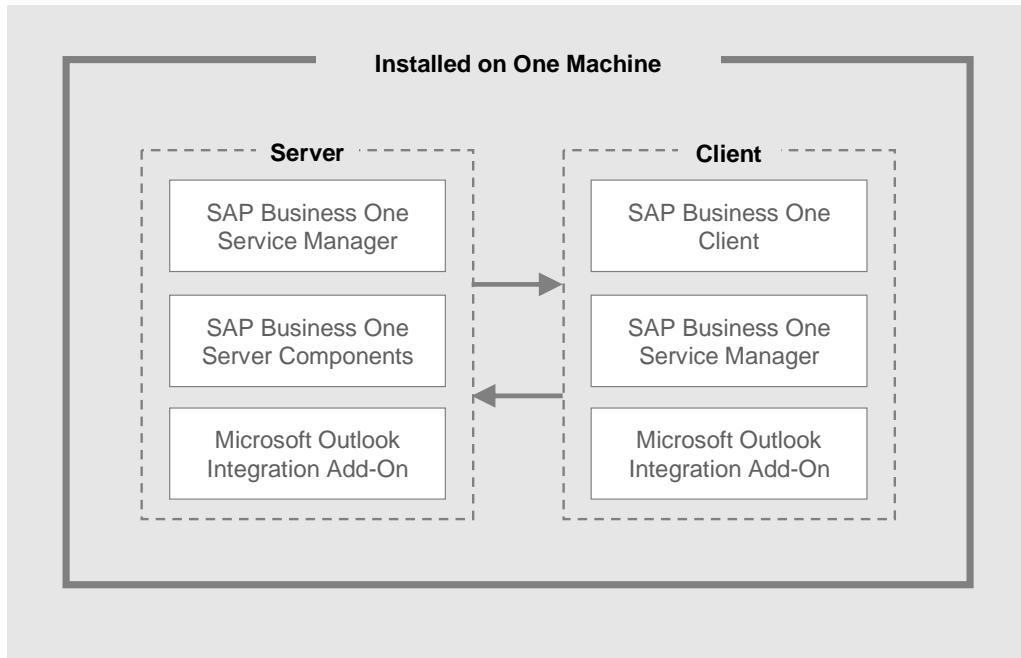


5. After you have finished installing all the client components, a summary window appears and you can see a list of the components installed on your machine.



### 3.3. Installing SAP Business One in Standalone Mode

In this scenario, you can install the SAP Business One server and client on one machine, as shown in Figure 2 below:



**Figure 4: Standalone Landscape**

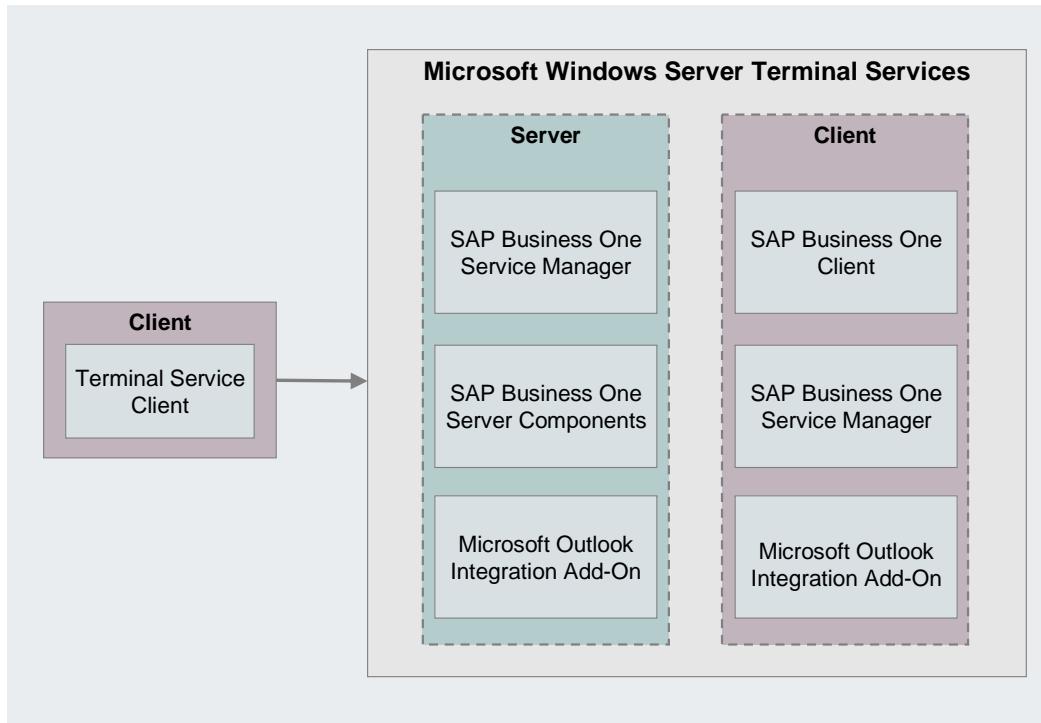
#### 3.3.1. Installing SAP Business One on One Machine

To install the SAP Business One server and client components on one computer, proceed as follows:

1. Perform the installation of the server tool and server components as described in [Installing SAP Business One in Server-Client Mode](#).
2. Perform the installation of the client application and components as described in [Installing SAP Business One in Server-Client Mode](#).

### 3.4. Installing SAP Business One in Remote Mode

In this scenario, you can perform the SAP Business One server and client installation on a remote machine, as shown in Figure 3 below:



**Figure 5: Microsoft Windows Server Terminal Landscape**

### 3.4.1. Installing SAP Business One on a Remote Machine

The following example describes the setup of Microsoft Windows Server 2003 Terminal Service for the hosted environment setup.

#### Prerequisite

The installation complies with all hardware and software requirements, as detailed in *SAP Business One Requirements*, available at <http://channel.sap.com/sbo/documentation>.

#### Procedure

To perform the installation of SAP Business One on a remote machine, proceed as follows:

1. Install Microsoft Windows Server Terminal Services.
  - a. On the server machine, open the *Control Panel* and double-click *Add/Remove Programs*.
  - b. In the *Add/Remove Programs* window, choose *Add/Remove Windows Components*.  
The *Windows Components Wizard* opens. You may have to close the *Add/Remove Programs* window.
  - c. In the list of optional components, select *Terminal Services* and *Terminal Services Licensing*.
  - d. To install terminal service components, choose the *Next* button.

The wizard verifies whether you want to install the terminal services in *Remote Administration mode* or in *Application Server mode*.



#### Recommendation

Select *Application Server mode* as it supports an unlimited number of connections. In addition, you should keep the default installation values.

- e. In Application Server mode, install the software from Windows *Control Panel* by choosing *Add/Remove Programs* → *Add New Programs*.
- f. The setup wizard prompts you to insert Microsoft Windows Server 2003 installation media.

After copying files, the wizard informs you that the terminal services have been installed and that you need to reboot the server machine.

2. Install the following in sequence, as described in the section *Installing SAP Business One in Server-Client Mode*.
  - a. SAP Business One server tools
  - b. SAP Business One server components
  - c. SAP Business One client
3. Change the **sa** logon password and create an alternative user.

For security reasons, you should change the **sa** logon password right after installing SAP Business One, or create a user to substitute for the **sa** user, which is the safest option. For more information, see [Database Authentication](#).

### 3.4.2. Performing a Client Installation

You can create the client setup disks from the *Terminal Server-Client* menu on the terminal server.

#### Procedure

To install the terminal services client, proceed as follows:

1. Run the setup program on your workstation.
2. From the Microsoft Windows task bar, choose *Start* → *Programs* → *Terminal Server Client* and select *Client Connection Wizard*.
3. When the wizard appears, specify the name of the terminal server and a description for the connection.



#### Note

If you experience problems entering an actual server name in the *Server Name* field, specify the server IP address.



#### Recommendation

If you manage multiple servers on one workstation, specifying the server name in the *Description* field makes it easy to identify each connection.

## 3.5. Installing Crystal Reports

If you already have Crystal Reports Basic 2008 for SAP Business One installed, and you have not run SAP Business One client installation, then run the **SAP Business One Crystal Reports Integration Package.exe** file under the *C:\Program Files\SAP\SAP Business One\Crystal* folder.



#### Note

The folder path shown above may be different on your computer, depending on where you have installed SAP Business One and Crystal Reports Basic 2008 for SAP Business One. You can use the Microsoft Windows search facility on your computer to locate the folder and file.

## 3.6. Uninstalling SAP Business One

When you uninstall SAP Business One, you remove the application and all its components.



### Note

You must uninstall all SAP Business One add-ons before uninstalling the SAP Business One server and client components.

#### Procedure

1. To uninstall SAP Business One add-ons, choose *Administration* → *Add-Ons* → *Add-On Administration* and proceed as follows:
  - a. On the *Company Preferences* tab, under *Company Assigned Add-Ons*, select the add-ons you want to remove.
  - b. Choose the arrow button between the two panels. The add-ons are removed from the list.
  - c. In the *Available Add-Ons* list, select the add-ons you want to remove.
  - d. Choose the *Remove Add-On* button, and then choose the *Update* button.

SAP Business One automatically removes the add-ons that you have uninstalled the next time you start the SAP Business One application from any workstation that is connected to the server.



### Note

You can move XL Reporter to the *Available Add-Ons* panel but you cannot remove *XL Reporter* in the *Add-On Administration* window. The *Remove Add-On* button is disabled for XL Reporter.

2. In the *Add or Remove Programs* window, select the following items *one at a time*, and choose the *Change/Remove* button after each selection:
  - *SAP Business One Server Tools*
  - *SAP Business One Client*
  - *SAP Business One Server*
  - *Data Transfer Workbench*
  - *SAP Business One SDK*
3. To remove the DI API:
  - If you installed the DI API as part of the SAP Business One client installation, the system removes the DI API when you uninstall the SAP Business One client.
  - If you installed the DI API using the manual setup program in the `B1_SHR/B1DIAPI` folder, you must remove it by selecting *SAP Business One DI API* in the *Add/Remove Programs* window.

#### Result

SAP Business One entries no longer appear in the *Programs* menu and any shortcuts that you may have on the Microsoft Windows desktop are removed .

You can now do the following:

- Manually delete the SAP Business One folders in Microsoft Windows Explorer.
- Remove SAP Business One databases using your database management application.

## 4. Performing Post-Installation Activities

This section describes the activities you are required to perform immediately after installing SAP Business One. The activities include the following:

- Configuring services
- Installing the license key
- Assigning SAP Business One add-ons
- Installing the Outlook integration standalone version
- Setting up the dot matrix printer

### 4.1. Configuring Services

You must configure the services you have installed if they are to operate properly.



#### Note

The first time you configure any service in the service manager, you need to specify the site user password. This is not for authentication purposes, but in order to obtain the database password. Once you enter the site user password once, you do not have to enter it again when you configure other services.



#### Example

You have a landscape of 10 machines, each with a server and server tools. The backup service is installed on all of the server tools, and the license server is installed on machine No. 1. If you go to configure the backup server on machine No. 5, for example, you have to specify the site user password (because it is the first time you are using the service manager). Later, when you want to configure the backup service on another machine, no password is needed, even if the machine is restarted.

SAP Business One services include the following:

- SBO Backups
- SBO DI Server
- License Manager
- SBO Mailer
- Fax service
- Automatic data collection

#### 4.1.1. SBO Backup

This optional service performs database backups and lets you schedule automatic backups.

For more information, see [Configuring Backup Services](#).

#### 4.1.2. SBO DI Server

This service is optional for your installation. It enables multisession access to, and manipulation of, the SAP Business One company database. To use it, you are required to have a special license.

For more information, see the SDK Help Center.

### 4.1.3. License Manager

This mandatory service manages the application license mechanism.

For more information, see [Error! Reference source not found.](#) the section *Configuring the License Manager* below [Error! Reference source not found.](#) [Error! Reference source not found.](#) [Error! Reference source not found.](#) [Error! Reference source not found.](#)

### 4.1.4. SBO Mailer

This optional service enables you to send e-mail and fax messages from SAP Business One.

For e-mail messages only, you can install this service on the SAP Business One server or on one of the workstations. For more information, see [Configuring SBO Mailer](#).

### 4.1.5. Configuring the License Manager

Configuring the license manager is essential for the successful operation of SAP Business One. This service manages license requests and lets you install a license key, which is required to run SAP Business One, according to your contract.

For new installations, you can use the application for a period of 31 days without a license key. After that period, the SAP Business One application needs a license key to run.

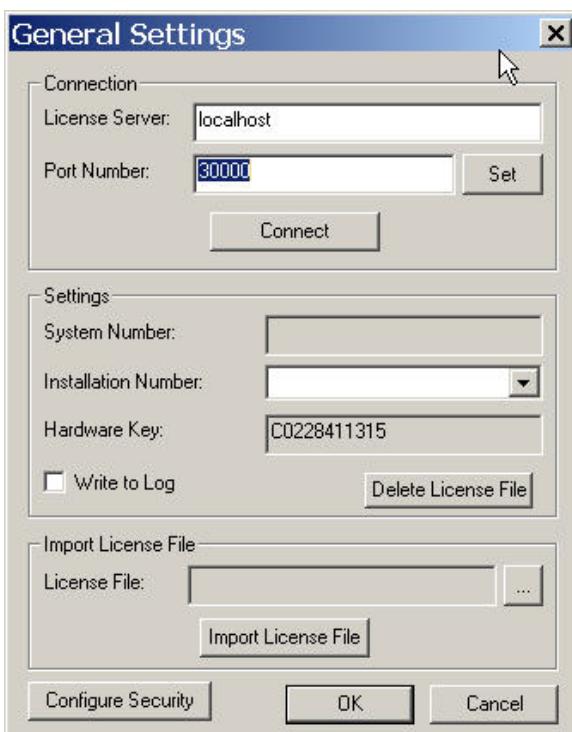
We strongly recommend that you request a license key immediately after installing the application.

## Procedure

1. To open the *SAP Business One Service Manager* window, in the Microsoft Windows task bar double-click  (*SAP Business One Service Manager*). Alternatively, choose *Start* → *Programs* → *SAP Business One* → *Server Tools* → *Service Manager*.
2. In the *Service* dropdown list, select *License Manager* and choose the *Settings* button.



3. In the *General Settings* window, choose the *Connect* button. The details of the license service machine appear in the *Settings* area.



### Note

If you installed the license service on the SAP Business One server, SAP Business One sets *localhost* by default. Otherwise, enter a name or IP address for the machine. We recommend that you not change the default value for the *Port Number* field.

### CAUTION

If you installed a firewall on the license service machine, make sure that the firewall is not set to port 30000; otherwise, the license service cannot work.

If you are using Port X, make sure to open Port X *and* Port (X+1) in the firewall. For example, if you are using port 10000, make sure to also open port 10001.

4. To save your settings and close the *General Settings* window, choose the **OK** button. If you already have a license key file, you can continue to *Installing a License Key File*.
5. Choose  (*Play*) and select the checkbox: *Start when operating system starts*.



## 4.1.6. Configuring the Fax Service

SAP Business One offers fax services through Microsoft Fax service. For more information, see [Configuring Fax Services](#).

## 4.1.7. Configuring Backup Services

The SAP Business One backup service provides automatic backups of company databases to specified directories.

This service also backs up the following application folders (as defined in *SAP Business One* → *Administration* → *General Settings* → *Paths*):

- Attachments
- Bitmap files
- Excel files
- Word documents

The process of configuring an automatic backup service entails performing the following steps:

- Setting backup folders
- Connecting to the database
- Selecting databases
- Scheduling backups

## Procedure

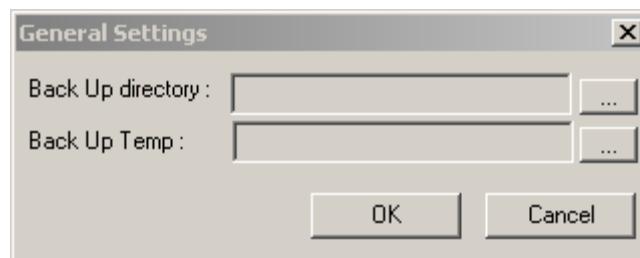
1. To set backup folders, proceed as follows:
  - a. To open SAP Business One Service Manager, in the Windows notification area, double-click  (SAP Business One Service Manager). Alternatively, choose *Start* → *Programs* → *SAP Business One* → *Server Tools* → *Service Manager*.

In the Service dropdown list, select *SBO BackUp* and choose the *Settings* button.



- b. In the *General Settings* window, do the following:

- In the *Back Up directory* field, choose  (Browse) to select the destination of the backup files. Define an actual path.
- In the *Back Up Temp* field, choose  (Browse) to select a temporary backup folder to hold the backup file, in case the backup process fails to copy the file into the specified backup folder.



Choose the *OK* button.

- c. In the *SAP Business One Service Manager* window, choose  (Play) and select the checkbox: *Start when operating system starts*.

2. To connect to the database, proceed as follows:

- In the *SAP Business One Service Manager* window, choose the *Connection* button.



- In the *Site User Password* window, enter the license server address and the site user password, and then choose the *OK* button.



**Note**

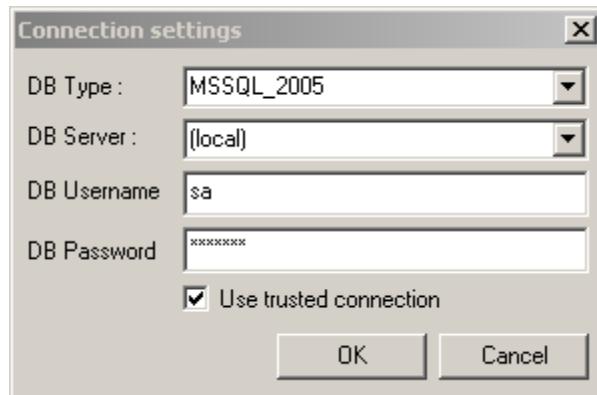
The site user password is only required the first time you connect to a service from SAP Business One Service Manager.



- In the *Connection Settings* window, do the following:

- Select the database type and the database machine.
- Specify a valid user name and password. Alternatively, to connect to the database server with Windows authentication, select the *Use Trusted Connection* checkbox.

When using a trusted connection, you do not need to specify a database user and password.



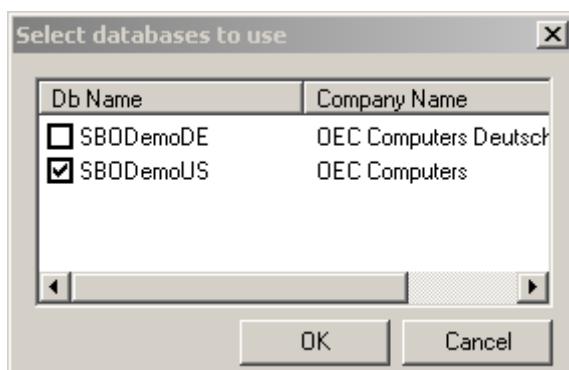
d. To save your settings and close this window, choose the *OK* button.

3. To select the databases, proceed as follows:

a. In the *SAP Business One Service Manager* window, choose the *Database* button.



b. In the *Select databases to use* window, select the databases you want to back up and choose the *OK* button.



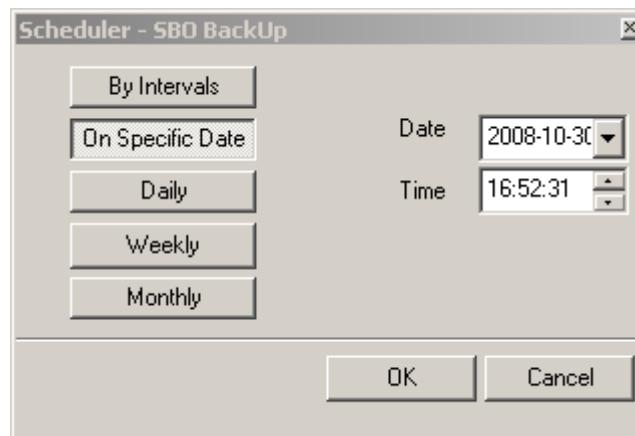
4. To schedule the backups, proceed as follows:

- In the *SAP Business One Service Manager* window, choose the *Schedule* button.



- In the *Scheduler – SBO BackUp* window, select one of the following scheduling options for performing backups:

- *On Specific Date* defines a backup for a specific date and time.
- *Daily* sets a backup for a fixed hour of each day.
- *Weekly* sets a backup for a fixed hour on a fixed day of each week.
- *Monthly* sets a backup for a fixed hour on a fixed day of each month.



- Choose the *OK* button. If you do not need to configure other services, close the *SAP Business One Service Manager* window.

#### 4.1.8. Configuring SBO Mailer

The process of configuring SBO Mailer comprises the following steps:

1. Starting SBO Mailer
2. Defining the mail settings
3. Connecting to the database
4. Selecting databases
5. Setting the mail processing schedules

## Prerequisites

You have installed the SBO Mailer service.

For information, see *Installing the SAP Business One Server*.

## Procedure

1. Start SBO Mailer, as follows:
  - a. To open the *SAP Business One Service Manager* window, in the Windows system tray, double-click  (*SAP Business One Service Manager*). Alternatively, choose *Start* → *Programs* → *SAP Business One* → *Server Tools* → *Service Manager*.
  - b. In the *Service* dropdown list, select *SBO Mailer*.

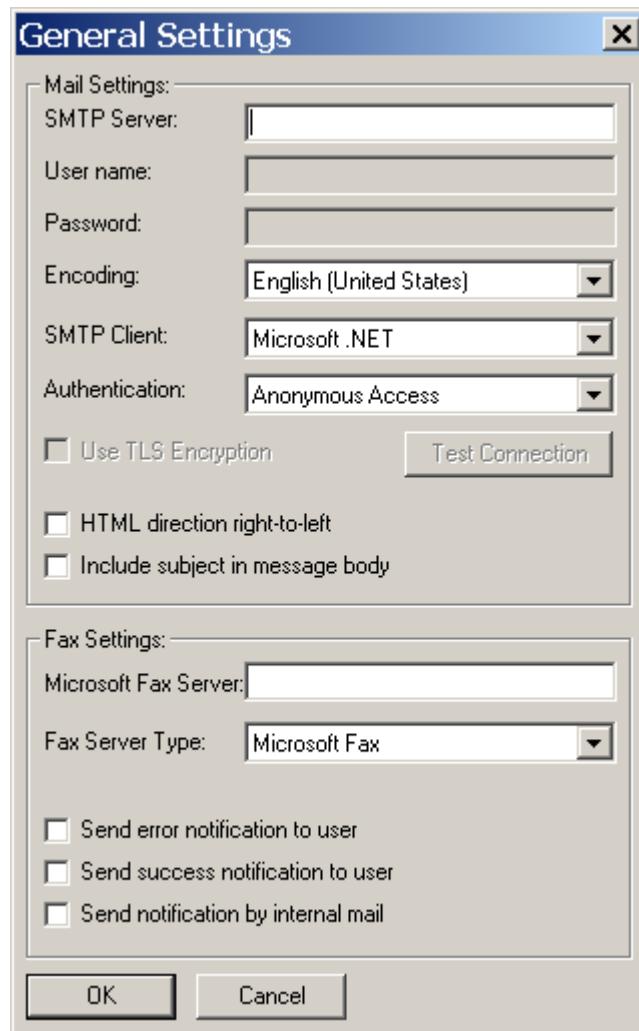


- c. Choose  (*Play*) and select the checkbox: *Start when operating system starts*.

2. Define mail settings, as follows:

a. In the *SAP Business One Service Manager* window, choose the *Settings* button.

The *General Settings* window appears.



b. In the *General Settings* window, do the following:

- In the *SMTP Server* field, enter the IP address of the BIOS name of your outgoing mail server. To make changes in this field later, you must stop the Mailer service.
- In the *Encoding* field, select the language for e-mail text.
- To define the direction of the e-mail text, select the checkbox: *HTML Direction Right to Left*.
- To include the subject line in the body of the message, select the checkbox: *Include Subject in Message Body*.
- Under *Fax Settings*, select the required fax service. For more information, see Configuring the Fax Service.

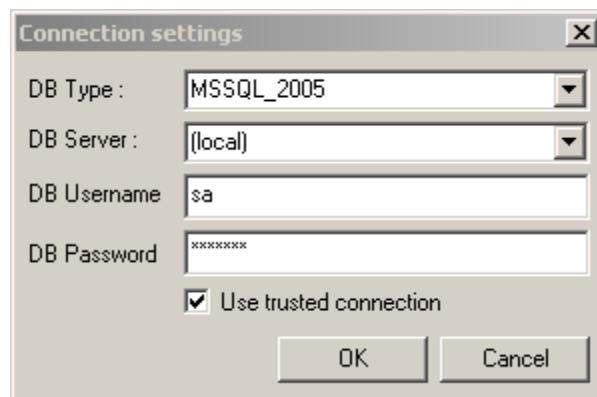
3. To connect to the database, proceed as follows:

- a. In the *SAP Business One Service Manager* window, in the *Service* dropdown list, select *SBO Mailer*, and then choose the *Connection* button.



- b. In the *Connection Settings* window, do the following:

- To connect to a database, specify a valid user name and password.
- To use Windows authentication, select the *Use Trusted Connection* checkbox.
- Choose the *OK* button.

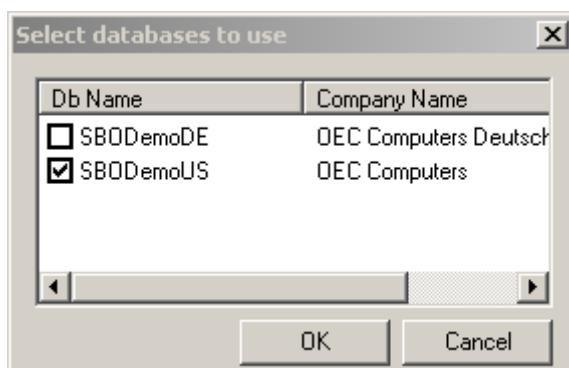


2. To select a database, proceed as follows:

- In the *Service Manager* window, from the *Service* dropdown list, select *SBO Mailer*, and then choose the *Database* button.



- In the *Select databases to use* window, select the databases for which you want to enable mailing services, and then choose the *OK* button.



- In the *SAP Business One Service Manager* window, from the *Service* dropdown list, select *SBO Mailer*, and then choose the *Settings* button.



- In the *General Settings* window, in the *Mail Settings* area, select components according to your network definitions, and then choose the *OK* button.

**Note**

As of the SAP Business One 2007 A SP01 release, the *SAP Business One Service Manager* window does not provide access to SBO Mailer e-mail signature settings.

To access these settings, from the SAP Business One *Main Menu*, choose *Administration* → *System Initialization* → *E-Mail Settings*.



3. To set the mail processing schedules, proceed as follows:

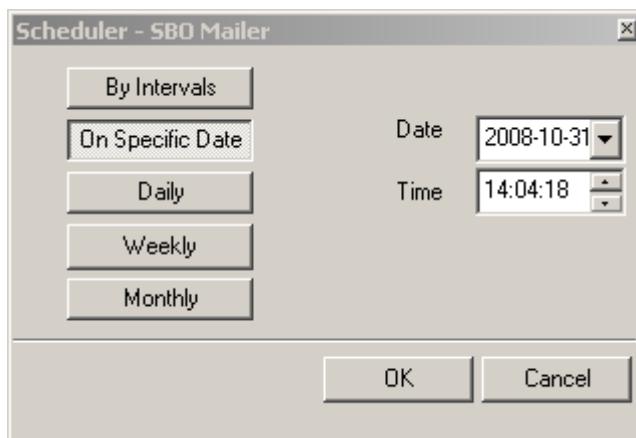
- In the *SAP Business One Service Manager* window, in the *Service* dropdown list, select *SBO Mailer*, and then choose the *Schedule* button.



- In the *Scheduler –SBO Mailer* window, select one of the following options:

- *On Specific Date* defines a backup for a specific date and time.
- *Daily* sets a backup for a fixed hour of each day.
- *Weekly* sets a backup for a fixed hour on a fixed day of each week.
- *Monthly* sets a backup for a fixed hour on a fixed day of each month.

4. Choose the *OK* button to return to the *SAP Business One* window.



- In the *SAP Business One* window, choose  (*Play*), and select the checkbox: *Start when operating system starts*.
- To close the *SAP Business One Service Manager* window, choose the *OK* button.

#### 4.1.8.1. Configuring Fax Services

SAP Business One offers fax services through Microsoft Fax Services. For additional information, see *How To Install and Configure Microsoft Fax Services* in SAP Channel Partner Portal at <http://channel.sap.com/sbo/documentation>.

This service can send several attachments as separate fax messages, added to a fax message. For supported file types, see the Microsoft documentation at [www.msdn.microsoft.com](http://www.msdn.microsoft.com).

#### 4.1.8.2. Troubleshooting

The following troubleshooting information may be required when configuring the mail services:

1. Ensure that you have already set up an e-mail account for the SAP Business One users on your mail server. To verify the connection with the mail server, choose the *Test Connection* button.
2. The mail service checks the connection with the specified mail server and e-mail account and displays an appropriate message.
3. If the SMTP server requires some authentication, for example, if the SMTP server is configured to accept only logon-authenticated mails, but you selected the *No Authentication* option, the test connection should be successful.
4. To check whether the connection to the SMTP server works, send a test e-mail. If the connection fails, ensure that you have done the following:
  - o Entered the correct name of your mail server
  - o Entered the correct user ID and password
  - o Restarted the SBO Mailer service after changing any of the settings

### 4.2. Technical Configurations

In SAP Business One, you can process the following technical data configurations:

- Use the SAP Business One Service Manager to configure the license manager. For more information, see [Error! Reference source not found.](#) (section 4.1.7).
- After you have installed SAP Business One and logged on to the application for the first time, you are required to provide the license server address and port number in the *License Server Selection* window.
- In the SAP Business One *Main Menu*, you can check the log configurations by choosing *Help → Support Desk → Logger Setting*. You can see the relevant configuration log file under:  
...\\SAP\\SAP Business One\\Conf\\B1logconfig.xml.

### 4.3. Installing the License Key

To use your SAP Business One application according to your contract, you are required to install a license key assigned by SAP.

You also must install a new license key whenever any of the following occurs:

- You have additional users or components.
- The hardware key changes.
- The current license key expires.
- You have a new installation of SAP Business One.

To avoid changing the hardware key accidentally, do **not** perform the following actions on the license server machine:

- Formatting the machine and reinstalling Microsoft Windows using another product key for Windows
- Changing the computer name
- Changing the domain (hardware key does not change back when you return to the previous domain)

The following actions are safe and do not change the hardware key:

- Adding a new user logon
- Changing the computer date or time

## Procedure

1. To open the SAP Business One Service Manager, in the Windows notification area, double-click



Alternatively, choose → *Start* → *Programs* → *SAP Business One* → *Server Tools* → *Service Manager*.

In the *SAP Business One Service Manager* window, in the *Service* dropdown list, select *License Manager* and choose the *Settings* button.



2. In the *General Settings* window, do the following:

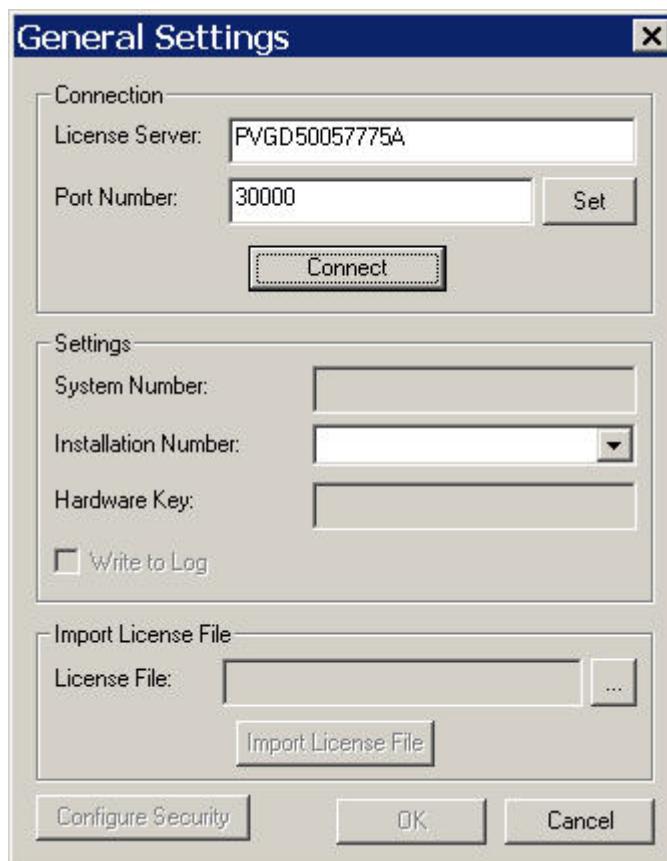
- Enter the computer name or IP address of the machine on which the server tools were installed.



**Note**

Use **localhost** only in standalone installations.

- To install the license key file, choose  (Browse) and select the **.txt** file you received from SAP.



3. Choose the *Import License File* button. An “Install Succeeded” message indicates a successful import. If the message: “Server is in startup mode, try again in two minutes” appears, wait two minutes and then try to import the file again.
4. To save your settings and close the *General Settings* window, choose the **OK** button.
5. To close the *SAP Business One Server Manager* window, choose the **OK** button.

#### 4.4. Assigning SAP Business One Add-Ons

SAP add-ons are additional components or extensions for SAP Business One. The following add-ons are included in the automatic registration:

- Copy Express
- Datev FI Interface
- ELSTER Electronic Tax Return
- Fixed Assets

- Intrastat
- Format Definition
- Microsoft Outlook integration
- Payment Engine
- Screen Painter
- Bank Transaction Handling Facility (BTHF)
- XL Reporter

Installing both the server and client applications also registers the SAP add-ons and makes them available for installation from the SAP Business One application.

### Prerequisites

- You have a Professional license from SAP.
- You have installed Microsoft XML 3.0 Service Pack 4 on your workstation. To ensure that this software is installed on the hard drive of the workstation, check that the `msxml3.dll` file is saved in the `system32` directory in the main Windows directory.
- If you chose *Customize* for the installation of server components, ensure that *SAP Add-ons* is selected in the *Select Features* window.
- You must have Power User or Administrator rights, especially in the terminal server environment.

The following table displays the SAP Business One add-ons and their prerequisites.

Add-On	Prerequisites
Payment Engine	Inbound Functionality is activated only when the <i>Bank Statement Processing</i> checkbox is deselected.
Screen Painter	You have installed Microsoft .NET Framework 2.0 on the SAP Business One workstation intended to run Screen Painter.
Copy Express	To be able to install the Copy Express add-on successfully, you must grant write permission to all users in the SAP Business One <code>B1_SHR</code> server folder.
Format Definition	You have installed Microsoft .NET Framework 2.0.
BTHF	You have installed Microsoft .NET Framework 2.0.

Add-On	Prerequisites
Fixed Assets	<ul style="list-style-type: none"> <li>For customers using Fixed Assets version 2005 SP0 or lower, the fiscal year definition must consist of 12 active periods. Fixed Assets accepts a non-calendar fiscal year only if the customer has defined 12 periods, with each period starting on the first day of the period.</li> </ul> <p>For customers using Fixed Assets version 2005 SP1 and higher, the system now supports the use of non-monthly accounting calendar fiscal year definitions such as a 4-4-5 accounting calendar, and it does not require the fiscal year definition to consist of 12 active periods, as required in 2005 SP0 or in earlier versions.</p> <ul style="list-style-type: none"> <li>During its initial start-up, Fixed Assets tries to add records to the item master data table. To add an item, you must provide an item group and two valid VAT groups.</li> </ul> <p>Since it is the only one that exists in SAP Business One by default, "100" is used as the item group.</p> <ul style="list-style-type: none"> <li>Fixed Assets uses country-specific VAT codes for all localizations it supports; see SAP Note <a href="#">770851</a>.</li> </ul> <p> <b>CAUTION</b></p> <p>If you delete the country-specific tax groups or the item group "100" from your company database, you cannot initialize Fixed Assets.</p>
Microsoft Outlook integration	<p>You have installed the following on your workstation:</p> <ul style="list-style-type: none"> <li>Microsoft Outlook (supported versions: 2000 SR1 (and higher), 2002, 2003, 2007)</li> <li>Microsoft Word (supported versions: 2000 SR1 (and higher), 2002, 2003, 2007)</li> <li>Microsoft Excel (supported versions: 2000 SR1 (and higher), 2002, 2003, 2007)</li> </ul> <p>After installing Microsoft Outlook, you created an e-mail account for sending and receiving e-mails.</p> <p>Microsoft Outlook is set as your default mail client. To check your default mail client, open the <i>Control Panel</i> window, and choose <i>Internet Options</i>. On the <i>Programs</i> tab, make sure that in the <i>E-mail</i> field, <i>Microsoft Outlook</i> is selected.</p> <p>You have closed Microsoft Outlook, Word, and Excel on the workstation.</p>
Datev FI Interface	<p>You have created a new company to work with the DATEV add-on and deselected the checkboxes: <i>Copy User-Defined Fields and Tables</i> and <i>Copy User-Defined Objects</i>.</p> <p>The DATEV add-on may not work with demo databases.</p>

## 4.4.1. Constraints

When you run SAP Business One 8.8, you can use only SAP Business One add-ons from Release 8.8. These add-ons can run only on SAP Business One 8.8.

The add-ons run under the SAP Add-Ons license, which is included in the Professional User license.

### Procedure

For information about how to assign SAP add-ons, see the *Assigning Add-Ons* online help document.

You can find the online help document at the following locations:

- Partners: SAP Channel Partner Portal at <http://channel.sap.com/sbo/documentation>
- Customers: SAP Business One Customer Portal at <http://service.sap.com/smb/sbocustomer/documentation> .

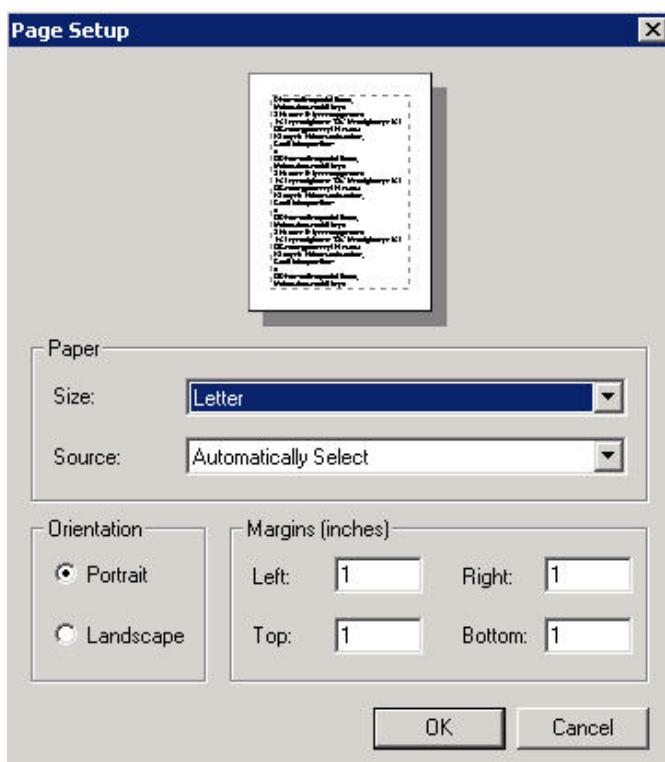
## 4.5. Setting Up Dot Matrix Printers

SAP Business One supports the following models of dot matrix printers:

- Citizen PROdot 300
- OKI Microline Elite 320
- Epson FX-880

### Procedure

- In the SAP Business One menu bar, choose *File* → *Page Setup*. The *Print Setup* window appears.
- Under *Paper*, set the *Size* field to **Letter**.



- In the Windows task bar, choose *Start* → *Control Panel* → *Printers*.

4. Right-click the selected dot matrix printer and choose *Properties*.
5. Choose the *Printing Preferences* button, and then select the *Paper/Quality* tab.
6. Choose the *Advanced* button and modify the following properties:
  - a. Set the paper size to **Letter**.
  - b. Set the print quality to 120x144 dots per inch or to the closest available value.

## 5. Upgrading SAP Business One

To upgrade your SAP Business One application to version 8.8 and run it successfully, you must do the following:

1. Upgrade your SAP Business One successfully to 8.8
2. Renew your SAP Business One license to 8.8
3. Import the 8.8 license file

You can use either of the following upgrade methods to upgrade previous SAP Business One versions to 8.8.

- Use the SAP Business One upgrade wizard to upgrade your SAP Business One to a higher major version, a support package, or a new patch above the SAP Business One 8.8 release. A restoration mechanism that ensures a complete reversal of the upgrade is also introduced for SAP Business One 8.8. This means that if any of the upgrade steps fail, you are able to reverse all the database changes made to your SAP Business One landscape by the wizard, and return to the SAP Business One version before the upgrade.



### Recommendation

To detect any errors or warnings that may arise in the SAP Business One upgrade process, we recommend that you perform a trial run of the SAP Business One upgrade wizard up to and including step 12 as described in the procedure below. The results of the pre-upgrade checks in the upgrade wizard will indicate where you may need to correct any errors before performing the actual upgrade. If no issues are found, you may continue with the upgrade procedure.

- Upgrade directly from the Upgrade DVD folders.

You can use the upgrade files in the Upgrade DVD to upgrade the components you want, although this method is not recommended and only advanced users can use it.



### CAUTION

If you want to upgrade the SAP Business One server or company database, you can run the upgrade wizard **ONLY** on the SAP Business One server machine.



### CAUTION

The upgrade files listed in the Upgrade DVD do not form a whole set of the upgrade process files. They are provided for advanced users only. For more information, see the Administrator's Guide of previous versions in SAP Business One Customer Portal at <http://service.sap.com/smb/sbo/documentation>.



### Note

When you perform an upgrade from SAP Business One 2005 A SP01, 2007 A, or 2007 B to SAP Business One 8.8, your previous SBO Mailer e-mail signature settings are automatically copied to the Common database and appear on the *Common E-Mail Signature* tab of the *E-Mail Settings* window.

You can access these settings from the SAP Business One *Main Menu* → *Administration* → *System Initialization* → *E-Mail Settings*.

The following versions are currently supported for upgrade to 8.8:

- SAP Business One 2005 A SP01 (patch level 53 or above)
- SAP Business One 2005 B (patch level 46 or above)
- SAP Business One 2007 A (patch level 48 or above)
- SAP Business One 2007 B (patch level 11 or above)
- SAP Business One 2007A SP01

For more information about upgrade versions, see SAP Note [1333696](#).



#### Note

To upgrade an SAP Business One version that is lower than 2005 to 8.8, you can first upgrade the current version to 2005 A SP01, 2005 B, or 2007 and then perform the upgrade to 8.8.

### Prerequisites

- You have made sure that company databases are not connected to either SAP Business One clients or SQL Server clients.
- You have the SAP Business One 8.8 license file available. You need this license file for connecting your company after the upgrade process is finished. If you do not import a valid license file for SAP Business One 8.8 after the upgrade process, you cannot work with your company.
- You have Administrator rights on the machine that runs the SAP Business One upgrade wizard.

To check if you have Administrator rights on your machine, proceed as follows:

- On your desktop, right-click the *My Computer* icon and choose *Computer Management* → *Local Users and Groups*.
- Choose *Groups* → *Administrators*.

- The SBO-Common database is installed on the server.
- You have installed Crystal Reports Basic 2008 for SAP Business One.

For more information about installing Crystal Reports Basic 2008 for SAP Business One, see the *Installing Crystal Reports XI R2* document (*xir2\_cr\_install\_en.pdf*) under:

...:\Docs\en, on the Crystal Reports Basic 2008 for SAP Business One product CD, which is shipped with the SAP Business One Product DVD.

- When you complete the SAP Business One upgrade, you have the option of installing remote support platform for SAP Business One. For more information about installing remote support platform for SAP Business One, on the SAP Business One product DVD see the *Administrator's Guide to Remote Support Platform for SAP Business One* document under :\Documents\Remote Support Platform.

## 5.1. Upgrade Process

To upgrade SAP Business One, do the following:

1. Run the SAP Business One upgrade wizard to perform the following operations:
  - a. Validate the license server
  - b. Select components for upgrade
  - c. Select a database for upgrade
  - d. Perform pre-upgrade checks
  - e. Specify a backup location (only occurs when database components are selected for upgrade)
  - f. Run the upgrade process
  - g. Restore (only occurs when upgrade fails)
2. Upgrade SAP Business One client workstations.
3. Upgrade SAP Business One add-ons.



### Note

You cannot use the SAP Business One upgrade wizard for this step.

### 5.1.1. Running the SAP Business One Upgrade Wizard

#### Procedure

1. Insert the upgrade DVD in the DVD drive.

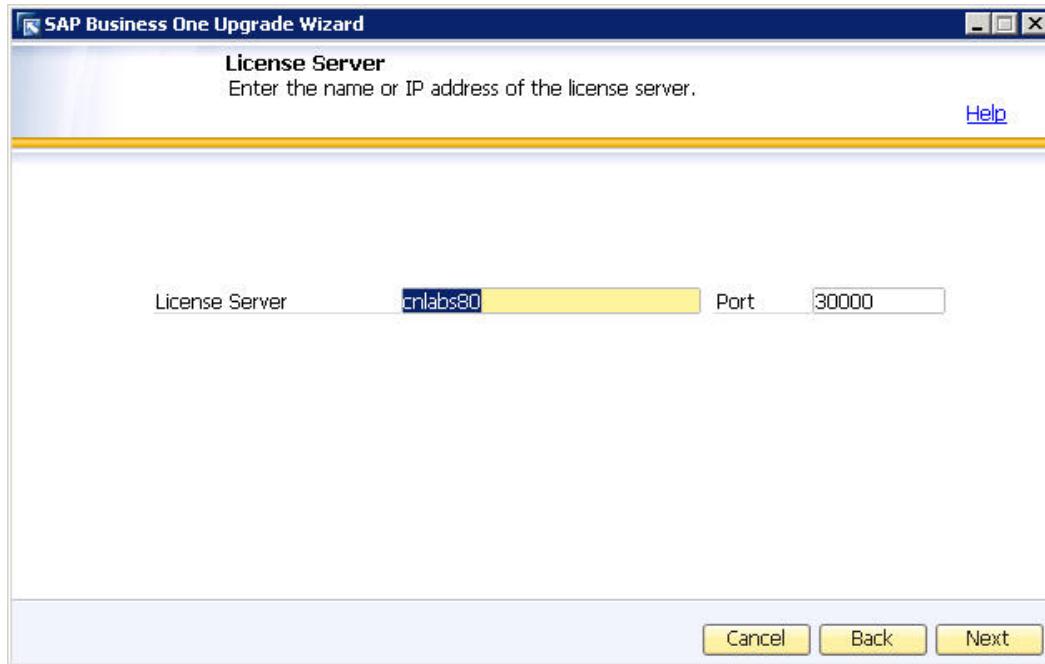
The upgrade program appears automatically. If the DVD does not launch the upgrade program, navigate to the DVD root folder and double-click the *Upgrade.exe* file.

2. To continue with the upgrade, in the *Welcome* window, choose the *Next* button.



3. In the *License Server* window, specify the license server that you want to validate.

To continue, choose the *Next* button.



The wizard starts to validate your license server. If you have now upgraded your license server to the 8.8 release, go on to step 4; otherwise, go to step 5.



#### CAUTION

If you are choosing a remote license server, make sure it is the 8.8 release; otherwise, the upgrade cannot proceed.



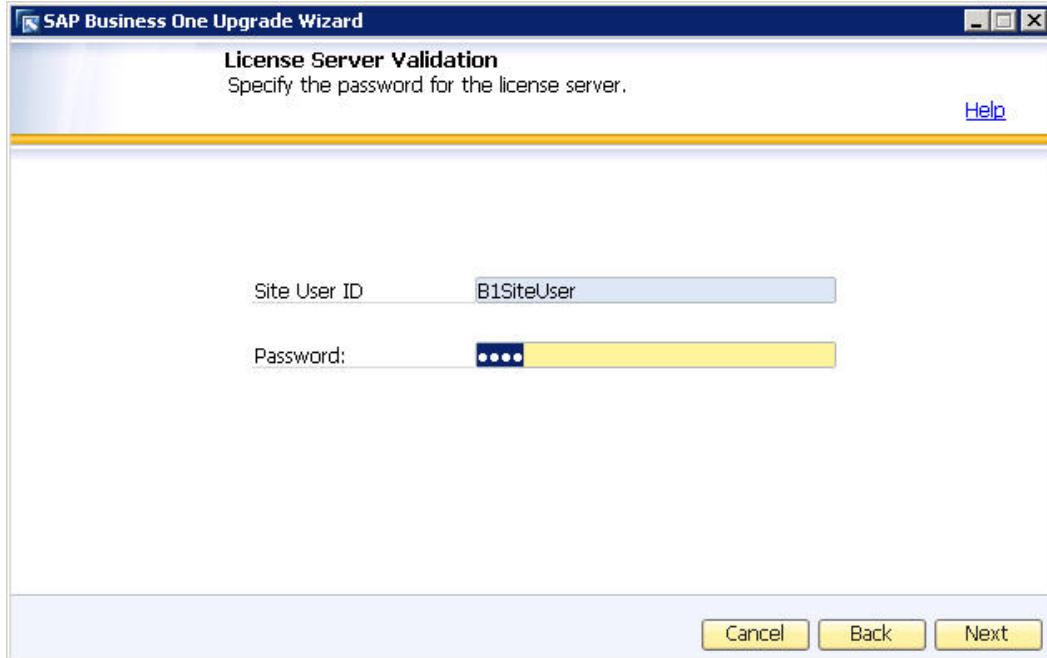
#### Note

If the wizard detects a license server, but has problems communicating with that license server, the following reasons may be causing the communication problems:

- License server is not launched
- License server cannot be connected

To continue with the wizard, you must fix the connection problems.

4. In the *License Server Validation* window, specify the site user password, and then choose the *Next* button.



5. In the *Connection Settings* window, specify the following fields of your SAP Business One server:

- *Server Type*: Select a Microsoft SQL Server type from those you installed.
- *Server Name*: Specify the computer name on which you installed Microsoft SQL Server 2005 or 2008.



In the *Server Name* field, make sure of the following:

- The name of the computer on which you installed Microsoft SQL Server does not contain any special characters, such as: "&", "<", ">", "'", " or " ".
- Do not use the following entries: `localhost`, `(local)`, `."` and `127.0.0.1`.

To check or correct the name of your machine, proceed as follows:

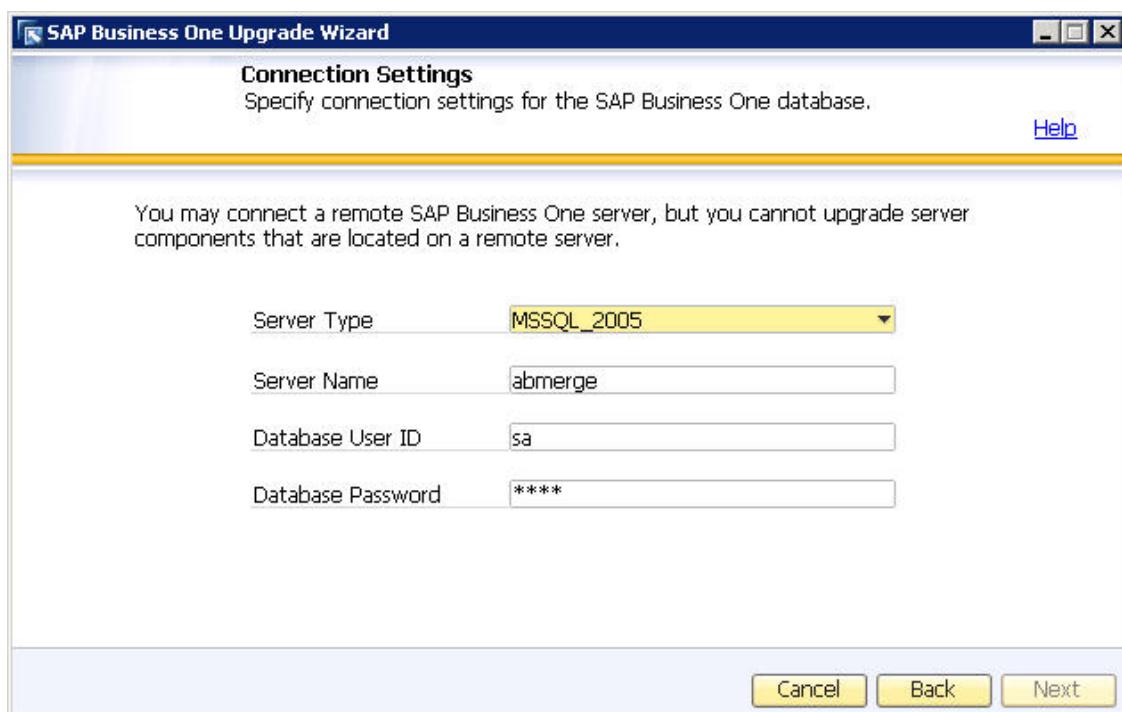
- a. Choose *Start* → *Control Panel* → *System*.
- b. In the *System Properties* window, select the *Computer Name* tab.
- c. In the *Computer description* field, check the computer name.
- d. To correct the computer name, choose the *Change* button.
- e. In the *Computer Name/Domain Changes* window, specify a new name for the machine, and then choose the *OK* button.
  - *Database User ID*: On the *Server Roles* properties tab in Microsoft SQL Server Management Studio, specify a user enabled with `sysadmin`.
  - *Database Password*: Specify the password of your database user.

**Note**

If you have problems setting the server, make sure that the name format of your computer is the same as the name format of your license server. To check or correct your computer name, proceed as follows:

- i. Choose *Start → Control Panel → System*.
- ii. In the *System Properties* window, select the *Computer Name* tab.
- iii. In the *Computer description* field, check the computer name.
- iv. To correct the computer name, choose the *Change* button.
- v. In the *Computer Name/Domain Changes* window, specify a new name for the machine and choose the *OK* button.

To connect to your SAP Business One server, choose the *Next* button.



6. In the *Component Selections* window, select the checkbox of each component that you want to upgrade.

If a component has already been upgraded to the current version or release, its checkbox is enabled and not selected. You can select it again to overwrite the component instance.

Choose the *Next* button.

**Note**

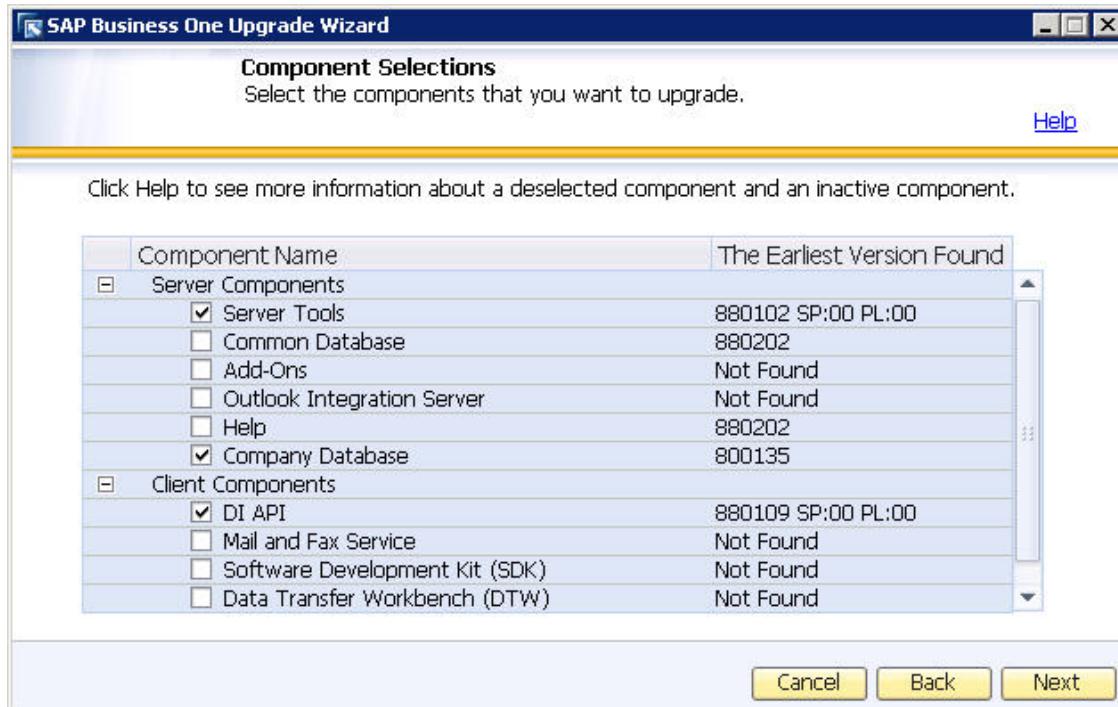
To upgrade all SAP add-ons, select the *Add-On* checkbox. Then all the new releases of add-ons, including the Outlook Integration Server Installer add-on, are automatically registered on the SAP Business One server and new installers are uploaded to the server. For more information about upgrading add-ons, see [Upgrading SAP Add-Ons](#).

**Note**

If the *Common Database* checkbox is inactive and not selected, it means that the SBO-Common database is not on your computer.

**Note**

The license server, as part of the server tools, must be upgraded first. If your license server has not been upgraded to 8.8, the wizard automatically selects the *Server Tools* checkbox.



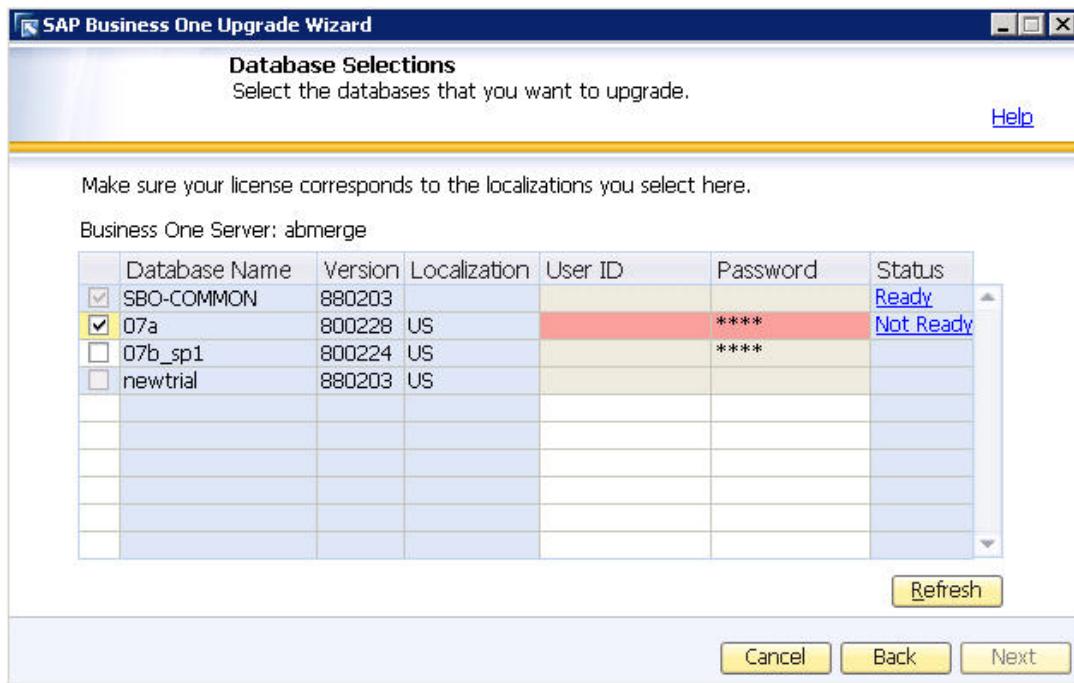
7. In the *Database Selection* window, do the following:

- Select the checkboxes of the databases that you want to upgrade.
- In the *User ID* and *Password* fields, specify the SAP Business One super user account and password.

Choose the *Next* button.



If you have selected the *Common Database* checkbox in the previous *Component Selection* window, the checkbox is selected and inactive now.



The wizard checks the version and the localization of the database, as well as the user ID and the password that you have specified.

- In each of the following cases, the status of the database displays as *Not Ready*, and the wizard disables the checkbox of the database:
  - The wizard does not support the version of the company database.
  - The company database is already of the latest version.
  - The wizard does not find the localization of the company database from the locale list of the common database.
- In each of the following cases, the status of the database displays as *Not Ready*, and the checkbox of the database is active:
  - The wizard finds more than one connection to the database.
  - The user ID or the password that you have specified is incorrect.
  - Superuser is locked or no superuser is provided.

8. If all the selected databases have the status *Ready*, choose the *Next* button.



#### Note

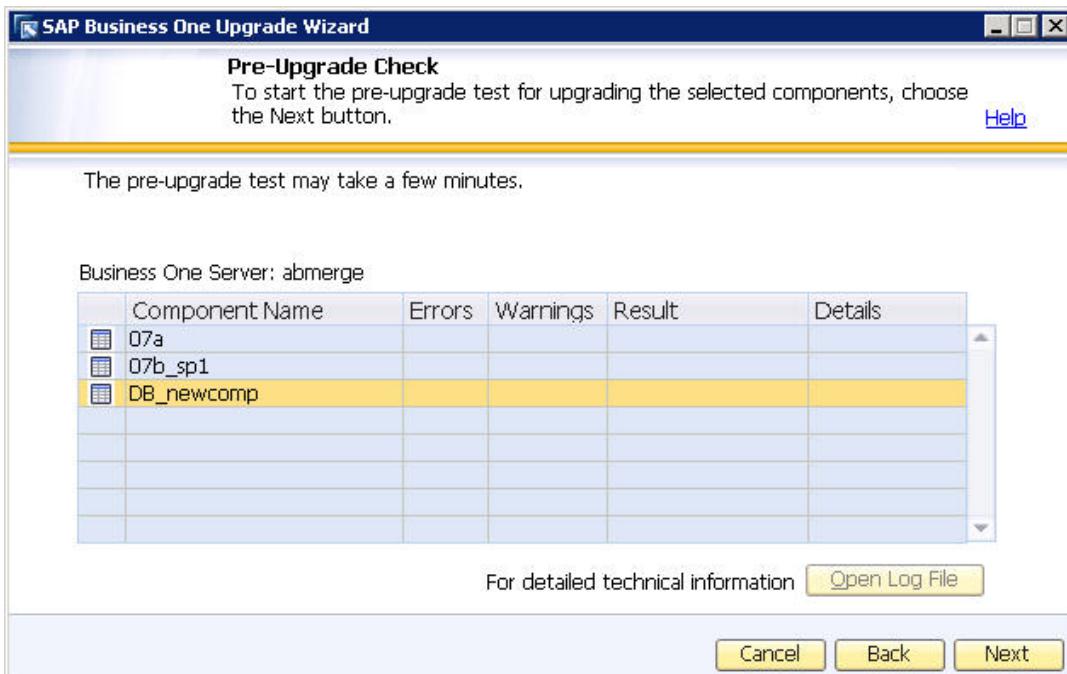
If any of the selected databases has the status *Not Ready*, the wizard disables the *Next* button.

Choose the *Not Ready* link to see the details. You cannot proceed to the next step until you have fixed the problem.

To proceed with the upgrade while ignoring the *Not Ready* databases, deselect these databases and choose the *Next* button.

9. In the *Pre-Upgrade Check* window, choose the *Next* button.

The SAP Business One upgrade wizard performs a set of pre-upgrade checks on each database to ensure its readiness for the upgrade and to reduce the possibility of upgrade failure.



The wizard checks the following items:

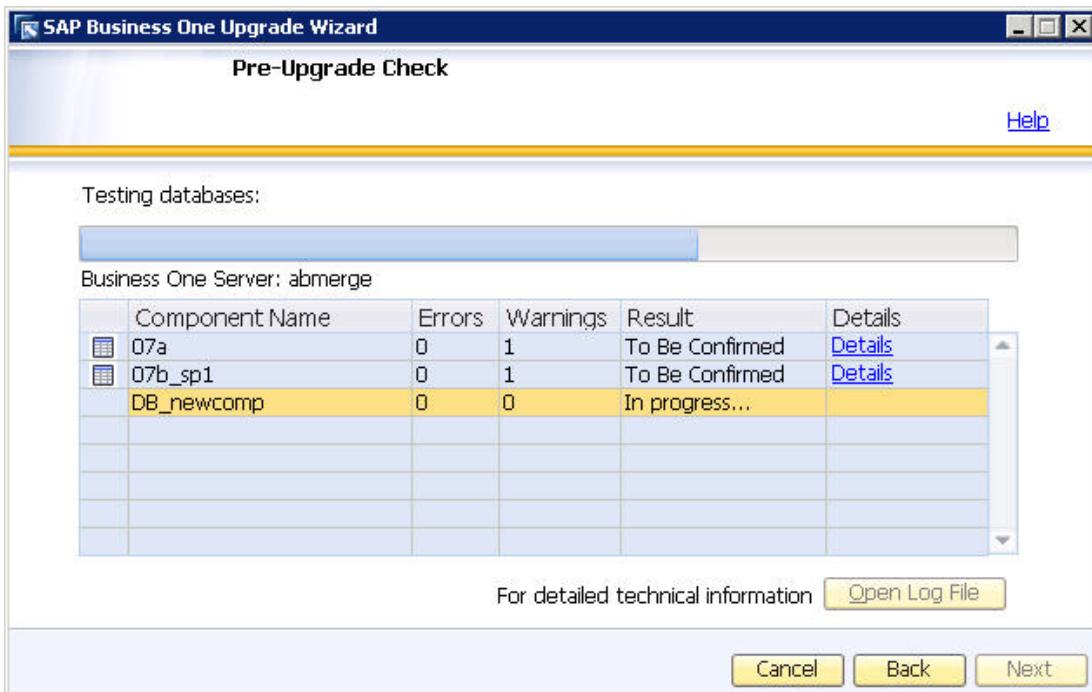
- Field length in OBNK table check, see SAP Note [1343084](#)
- Negative counted item in OITW, see SAP Note [1343083](#)
- Auto Create Statistics and Auto Create and Upgrade, see SAP Note [1343082](#)
- Down payment control accounts, see SAP Note [1343081](#)
- Reconciliation Upgrade, see SAP Note [1343080](#)
- Temporary tables check, see SAP Note [1343079](#)
- SBO\_SP\_Transaction notification, see SAP Note [1343078](#)
- Unique indexes of user defined, see SAP Note [1343077](#)
- Schema bounding objects check, see SAP Note [1343075](#)
- Database structure check, see SAP Note [1343074](#)
- Database upgrade status check, see SAP Note [1343073](#)
- Database unrestricted growth check, see SAP Note [1343052](#)

- System requirements check, see SAP Note [1343051](#)
- Database logical and physical integrity, see SAP Note [1343050](#)
- Item master data check, see SAP Note [1328930](#)
- Triggers check, see SAP Note [1320969](#)

10. In the next window, the wizard first checks the SBO-COMMON database, and then checks each of the rest of the databases one by one.

**Note**

If the SBO-COMMON database does not pass the checks, the wizard does not continue with the rest of the checks.



The pre-upgrade test checks the selected components and databases one by one.

After the processing, you can learn more from the following:

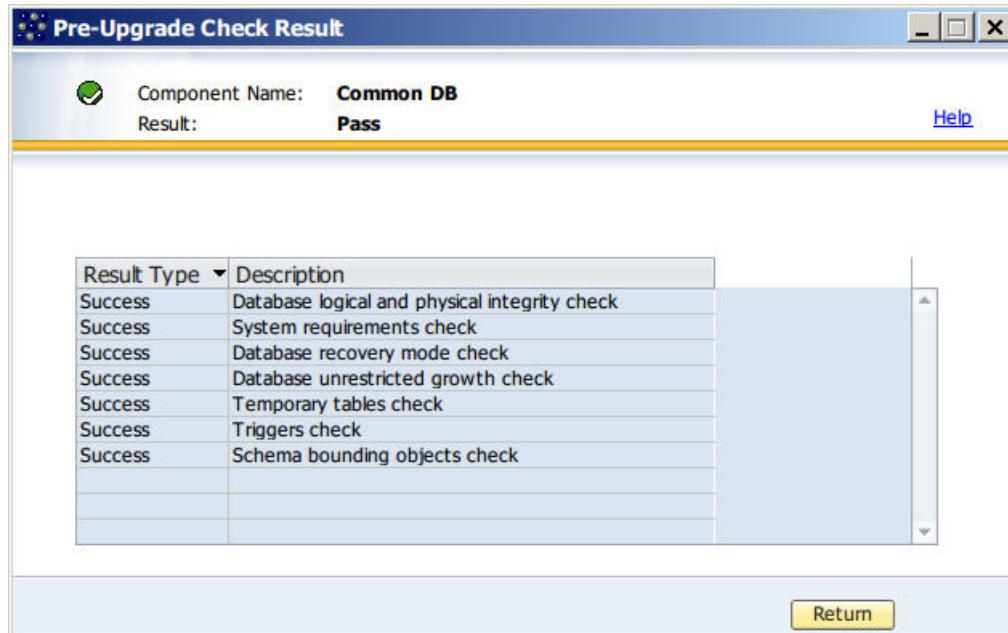
- *Details*: Click this link to view the processing details of each component and database.
- *Open Log File*: Choose this button to open a log file window that contains all testing records.

11. After finishing the checks on all the databases, depending on the check results, the wizard takes you to a result window, as described in the table below.

Status	Next Window
No errors or warnings	<i>Pre-Upgrade Check</i>
One or more warnings but no errors	<i>Pre-Upgrade Check: Warnings Detected</i>
One or more errors, warnings not a consideration	<i>Pre-Upgrade Check: Errors Detected</i>

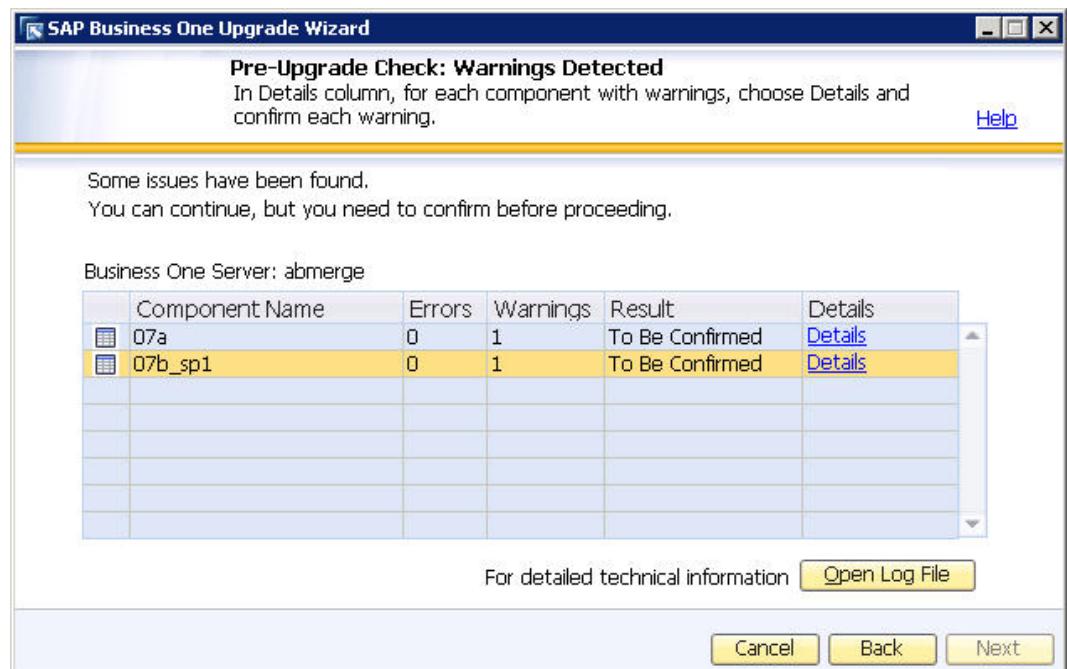
12. In one of the following windows that appears, perform the following actions:

- If the *Checking Result: Passed* window appears, to continue with the upgrade, choose the *Next* button and continue with step 14.



- If the *Pre-Upgrade Check: Warnings Detected* window appears, to continue with the upgrade, do the following:

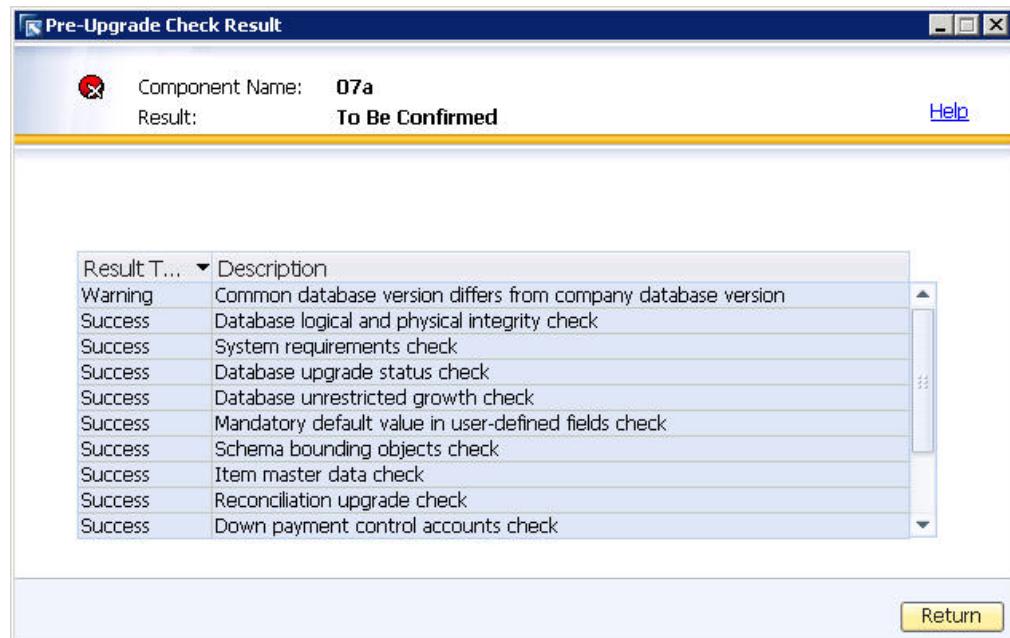
- i. Click the *Details* link to see the descriptions of the warnings.



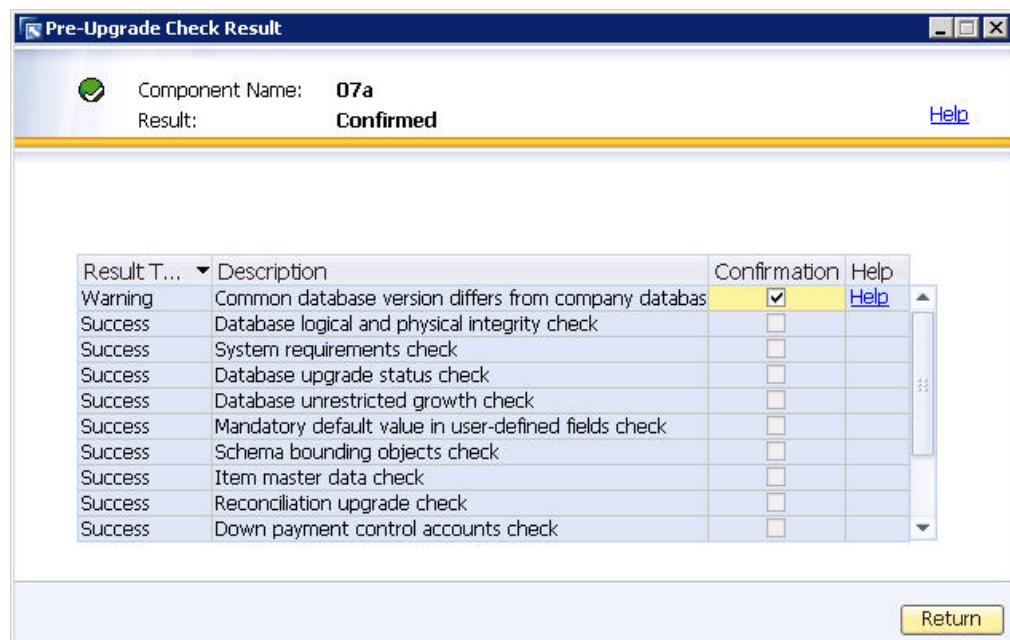
- ii. In the *Pre-Upgrade Check Result* window, select the checkbox of each warning.



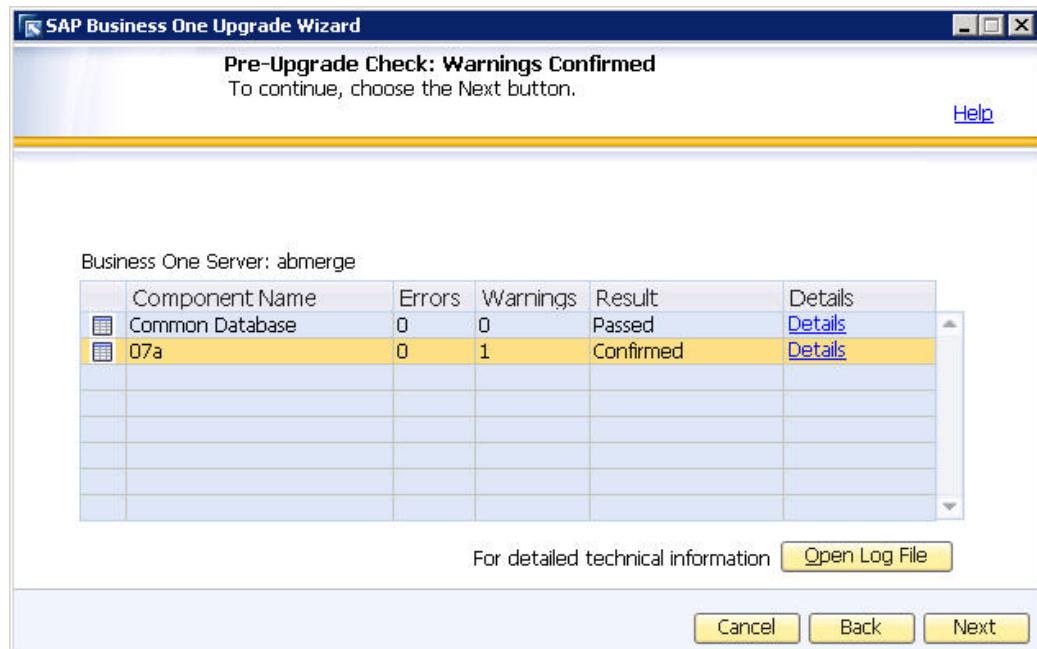
You cannot continue the upgrade process without confirming the warnings.



iii. In the next window, choose the *Return* button.

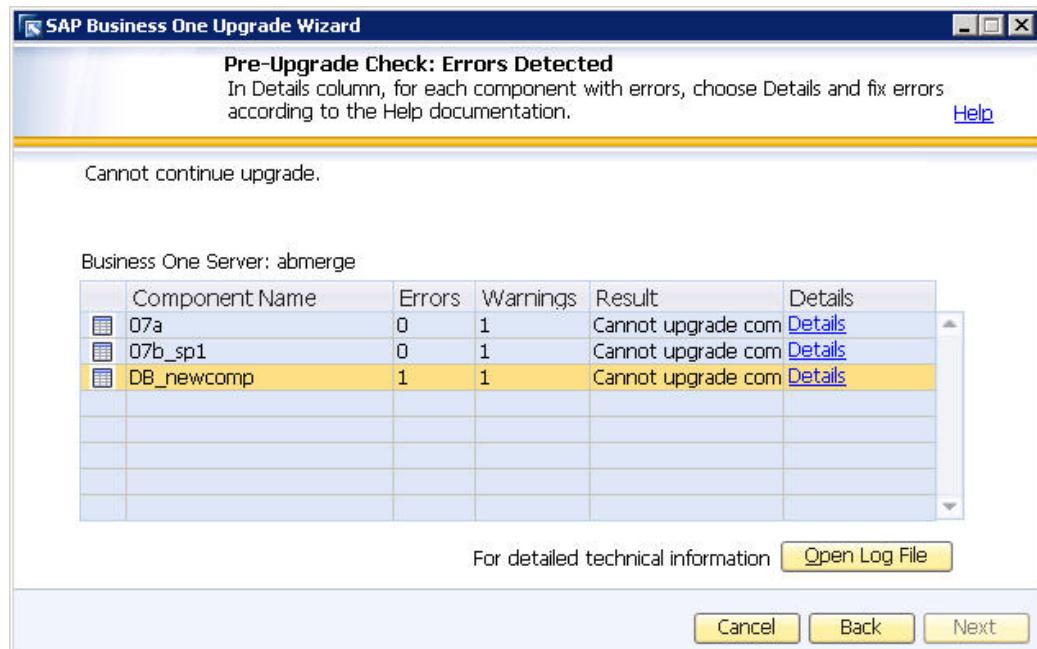


iv. In the *Pre-Upgrade Checking Result: Warnings Confirmed* window, choose the *Next* button and proceed with step 14.

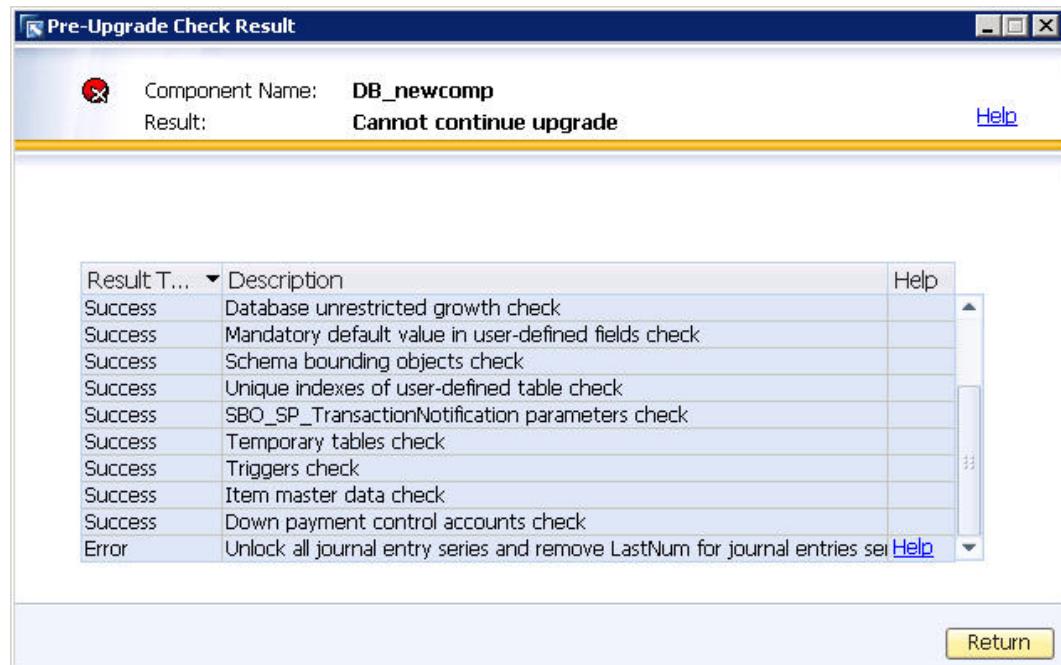


o If the *Pre-Upgrade Check: Errors Detected* window appears, do the following:

- Click the *Details* link to see the error descriptions.



ii. In the *Pre-Upgrade Check Result* window, click the *Help* link to get the details of the required actions.



iii. Proceed with the required action.

iv. In the *Pre-Upgrade Check Result* window, choose the *Return* button to go back to the *Pre-Upgrade Check: Errors Detected* window.

v. In the *Pre-Upgrade Check: Errors Detected* window, select all the rest of the components and check for errors, repeating steps i through iv.

vi. In the *Pre-Upgrade Check: Errors Detected* window, choose the *Back* button and redo the pre-upgrade check process as described in step 10.



#### CAUTION

You must fix all the errors; otherwise, you cannot continue upgrading SAP Business One.

13. In the *Upgrade-Backup Settings* window, do the following:

- To specify the local location of the drive on which you want to store the upgrade backup, choose the *Browse* button.

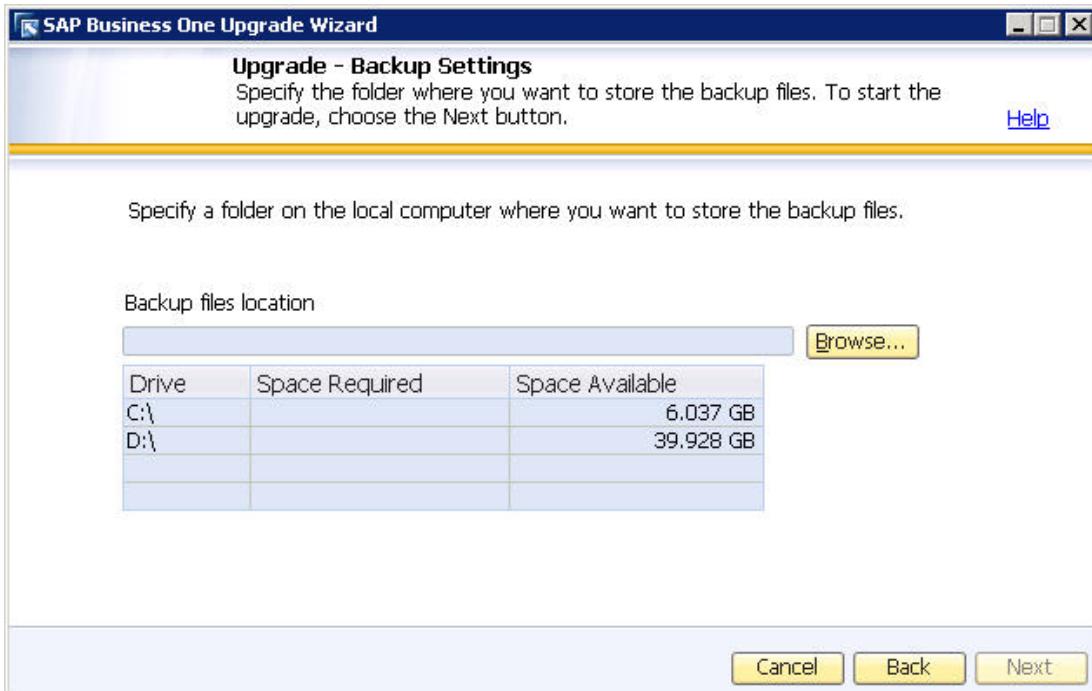


#### CAUTION

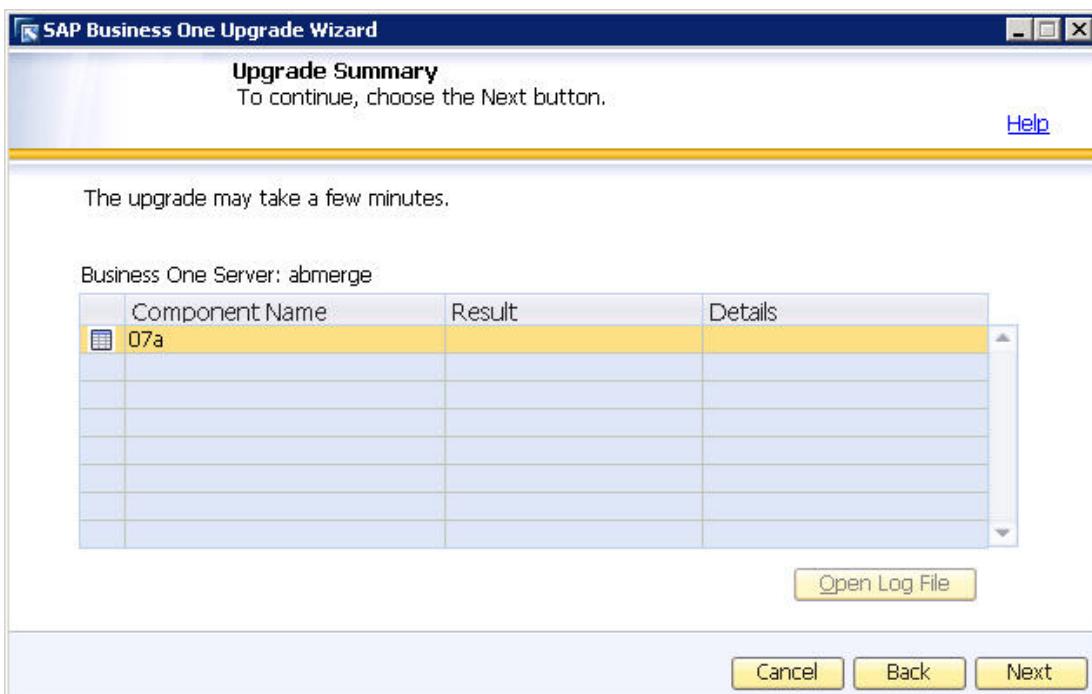
Do **NOT** specify any network drives or CD drives; otherwise, the backup can fail on those drives.

- To view the required available space of each drive, specify the path of the backup and the *Required Space* area then displays the needed space for:
  - The databases backups
  - The increased parts of the databases after the upgrade, such as the log files generated during the upgrade process

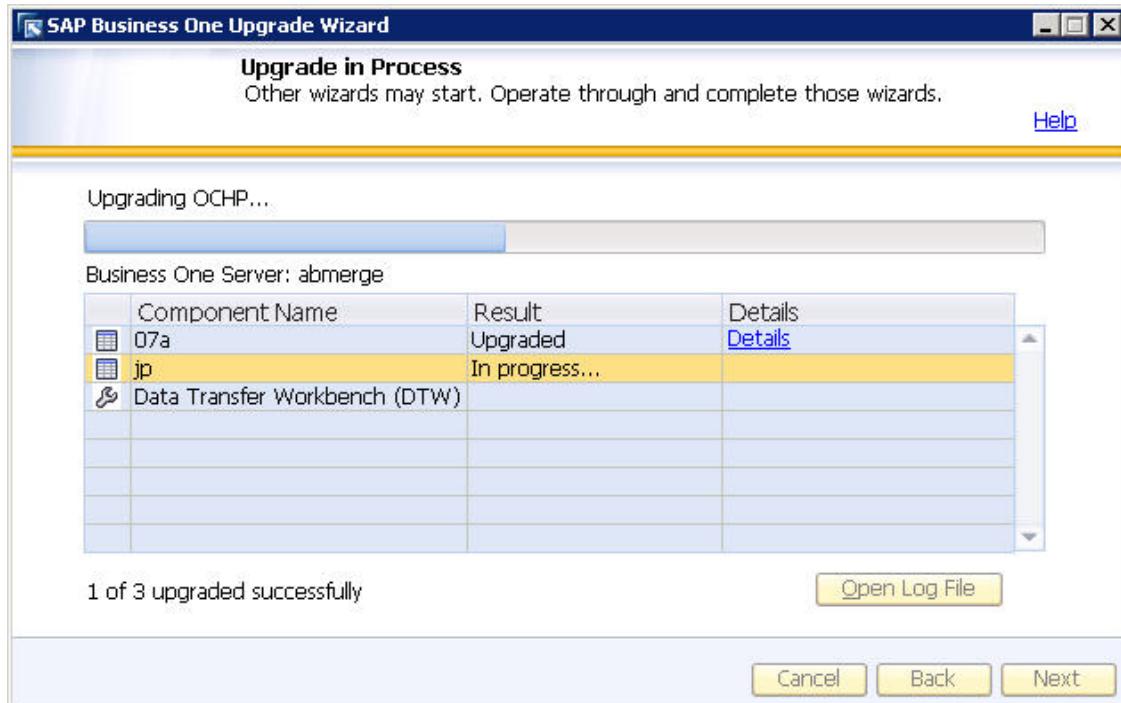
- The backups of any other files generated during the upgrade



14. In the *Upgrade Summary* window, the wizard performs the following operations one by one for each component and database.



15. The *Upgrade in Process* window displays the upgrade progress of each component and database.



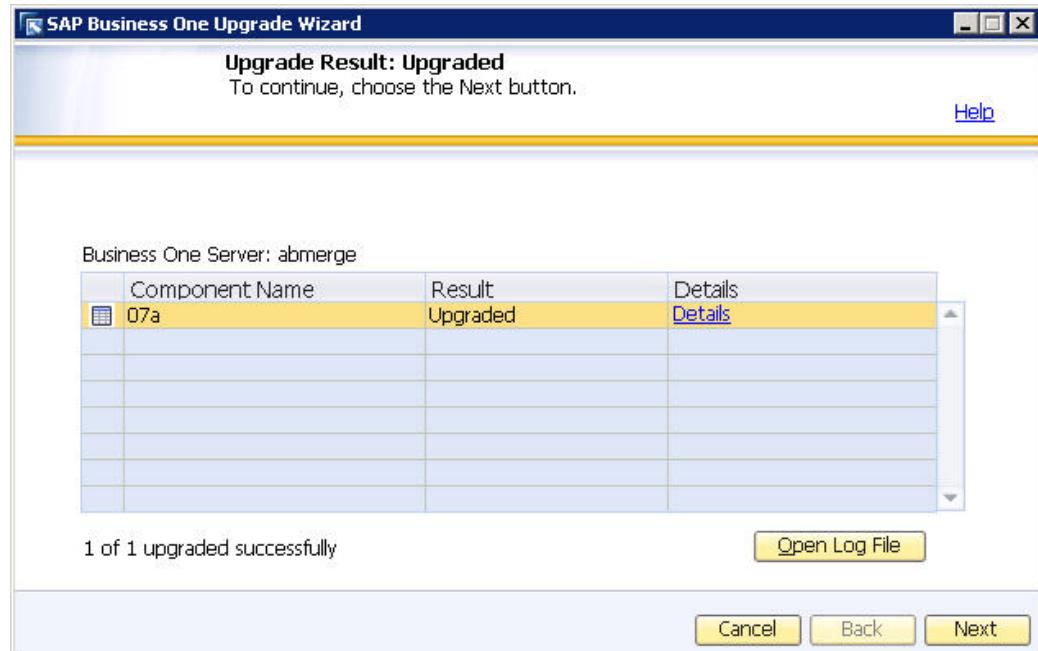
#### Note

The InstallShield Wizard that runs from the SAP Business One upgrade wizard indicates that it is installing various components. However, all references to *installation* should be understood as *upgrade*.

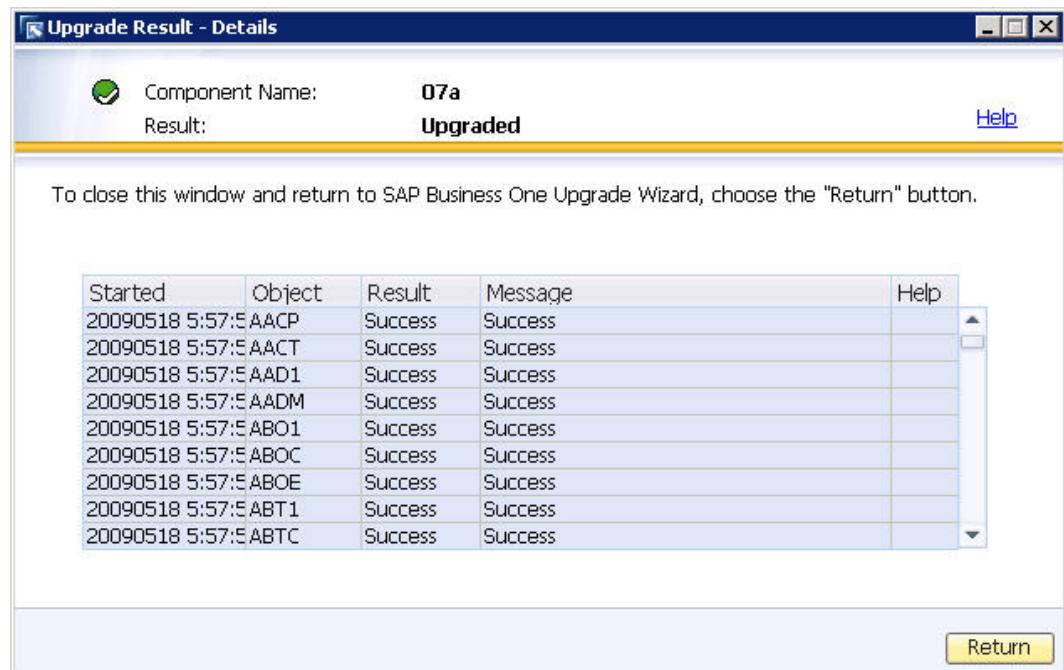
16. According to the upgrade results, you see one of the following windows:

- *Upgrade Result: Upgraded* window: If the upgrades of all components and databases succeed, the wizard opens this window.

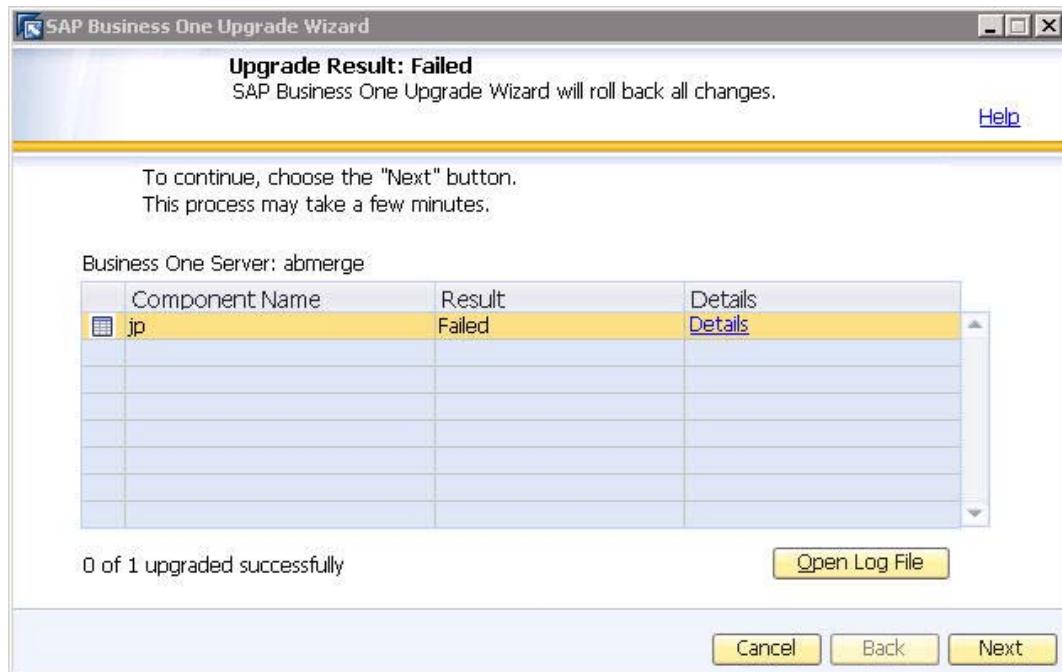
- To continue, choose the *Next* button and proceed with step 18.



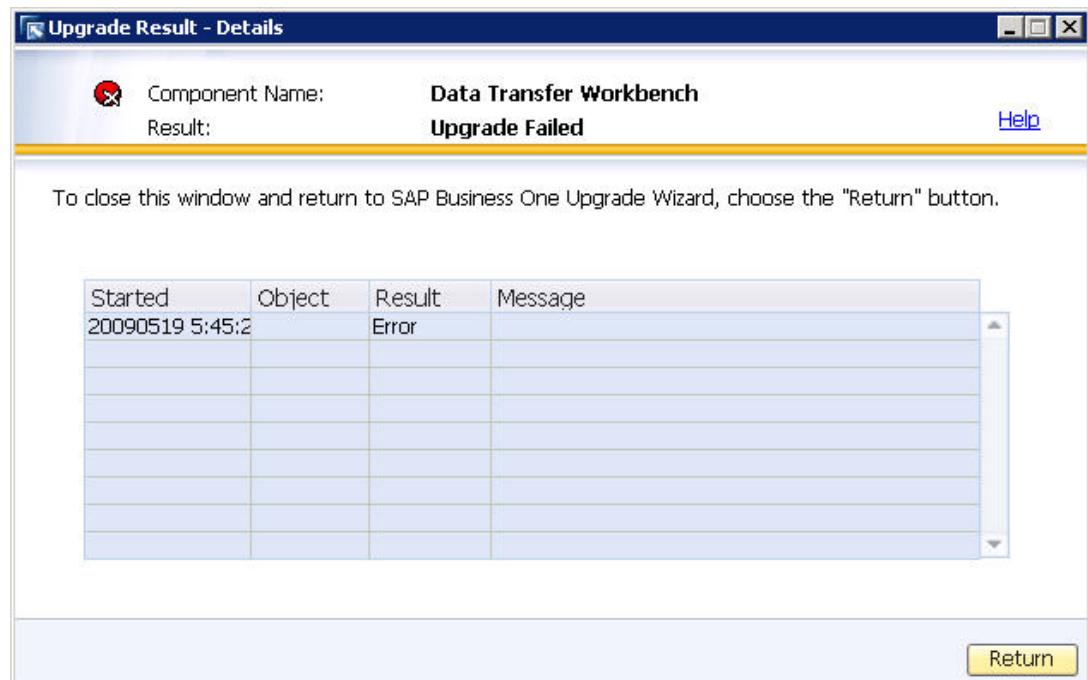
- To view the details of the upgraded components, click the *Details* link. The *Upgrade Result – Details* window appears.



- *Upgrade Result: Failed* window: If the upgrade of any component or database fails, the wizard opens this window.



- To continue with the restoration step of the rollback process, choose the *Next* button, and then proceed to the section Restoring Components and Databases.
- To see the details of the failed components, click the *Details* link.



17. In the *Congratulations* window, do one of the following:

- To proceed with the installation of the remote support platform for SAP Business One:
  - i. Select the checkbox: *Install Remote Support Platform for SAP Business One*.
  - ii. Choose the *Finish* button.

The installation wizard for the remote support platform for SAP Business One appears. For more information, see the document *Administrator's Guide to Remote Support Platform for SAP Business One* on the product DVD or on the dedicated landing page in SAP Channel Partner Portal at <http://service.sap.com/smb/sbo/rsp>.

After you install the remote support platform for SAP Business One, you can proceed to [Upgrading SAP Add-Ons](#).

- To proceed with the installation of SAP Business One without installing remote support platform for SAP Business One, do the following:
  - i. Deselect the checkbox: *Install the Remote Support Platform for SAP Business One*.
  - ii. Choose the *Finish* button.



## 5.1.2. Restoring Components and Databases

If the upgrade process fails, the SAP Business One upgrade wizard restores the components and databases. To start the restore procedure, do the following:

1. In the *Restore Components and Databases* window, choose the *Next* button.

The wizard starts to restore components or databases one after another.



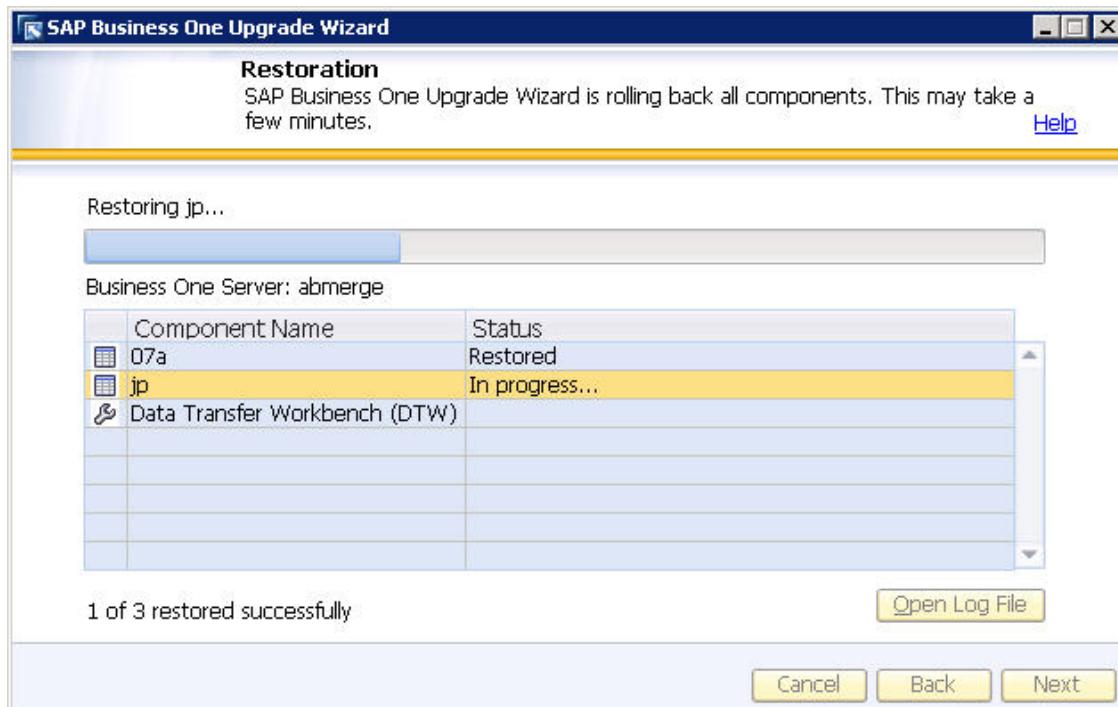
### Note

The SAP Business One upgrade wizard restoration only reverses all the changes made to the following database components:

- Common database
- Company databases
- Add-ons
- Help File

The components that cannot be restored are:

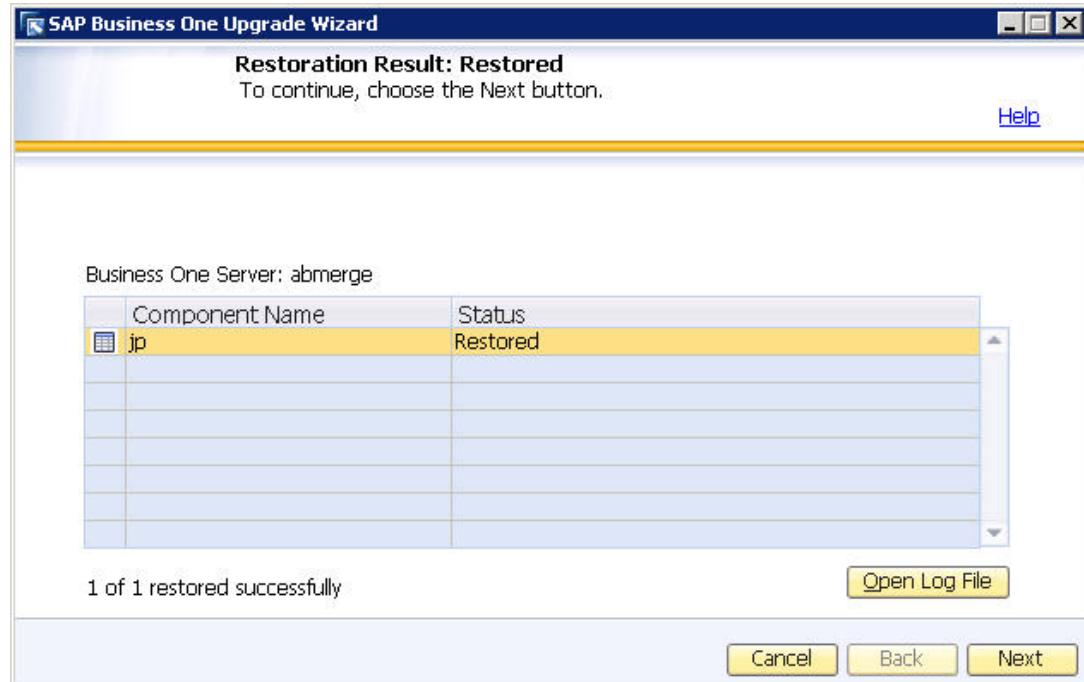
- Server Tools
- DTW
- DI API
- Outlook Integration



2. You can see one of the following windows as the restoration result:

- The *Restoration Result: Restored* window appears if the restoration is successful. To complete the restoration, do the following:

- i. In the *Restoration Result: Restored* window, choose the *Next* button.

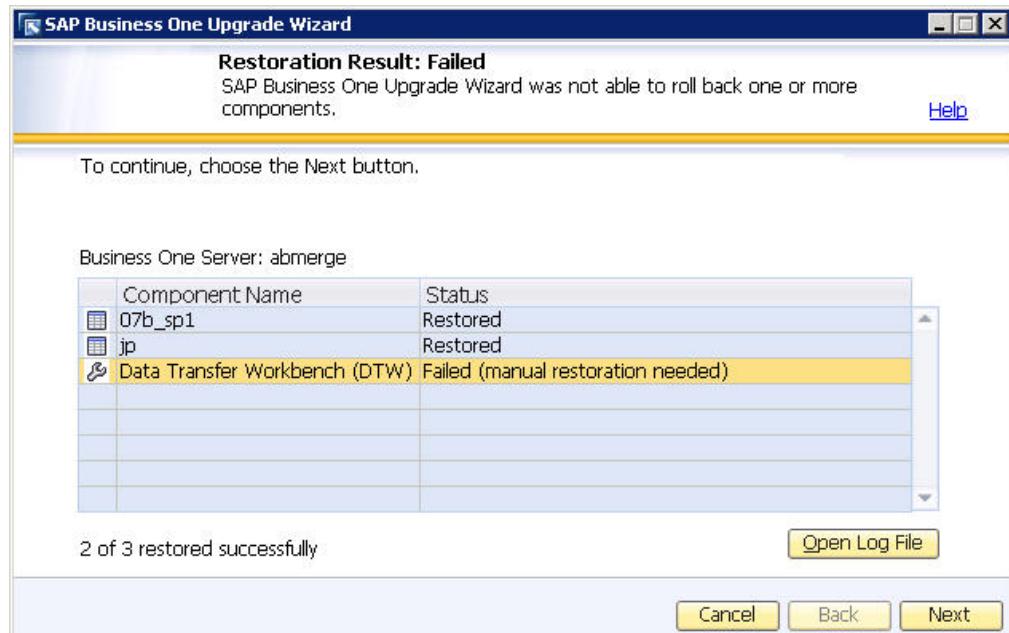


- ii. In the *Congratulations* window, choose the *Finish* button to complete the restoration process.



- If the restoration fails, the *Restoration Result: Failed* window appears. To complete the restoration, do the following:

- i. In the *Restoration Result: Failed* window, choose the *Next* button.



ii. In the displayed window, choose the *Finish* button to exit.



If the restoration fails, to roll back SAP Business One to the version before the upgrade, you have to do a manual restoration.

### 5.1.3. Upgrading SAP Business One Client Workstations

After running the SAP Business One upgrade wizard, to complete the SAP Business One upgrade, you have to manually upgrade your SAP Business One client workstations.

#### Procedure

1. To run SAP Business One 8.8, choose *Start* → *All Programs* → *SAP Business One* → *SAP Business One*.
2. In the *Choose Company* window, select a company and double-click it.
3. In the dialog box, choose the *Yes* button to start the upgrade of the client workstation.
4. In the .Net 3.0 installation window, choose the *Install* button.



#### Note

It may take a few minutes to finish the installation process.

5. InstallShield Wizard performs a silent installation of Crystal Reports Viewer if it is not installed on the current machine. For more information about installing Crystal Reports Basic 2008 for SAP Business One on the client machine, see [Installing Crystal Reports](#).

The SAP Business One data source and *Add-ins* menu are installed after Crystal Reports Viewer or Crystal Reports Basic 2008 for SAP Business One is installed.

6. During the DI API upgrade, in the *License Server Details* window, specify the license server name.

Make sure you do not use the following entries for the license server name:

- **localhost**
- **(local)**
- **“.”**
- **127.0.0.1**

Choose the *Next* button

7. When the upgrade is finished, a message appears. The client workstation is then upgraded.

### 5.1.4. Upgrading SAP Add-Ons

When you select the *Add-On* checkbox in the *Component Selection* window of the upgrade wizard, the following occurs:

- New releases of all SAP add-ons, including the Outlook Integration Server Installer add-on, are automatically registered on the SAP Business One server.
- New installers are uploaded to the server during the upgrade of the *SBO-COMMON* database.

Add-ons that were already installed and assigned to a company are re-registered with new releases and assigned to the same company.

Upon the next logon to a company assigned with add-ons, installers for the new add-on releases run automatically.

#### 5.1.4.1. Upgrading the Intrastat Add-On

If you are upgrading an Intrastat add-on from an Intrastat version that is lower than 2007 A, proceed as follows:

1. Choose to copy the user-defined fields (UDFs) from the item master data and business partner master data to new UDFs in Intrastat 8.8.

2. Choose to keep in or delete from Intrastat 8.8 all existing UDFs of Intrastat versions lower than 2007 A.

### 5.1.5. Troubleshooting Upgrading SAP Business One with the Upgrade Wizard

- The shared folder `B1_SHR` on the SAP Business One server machine must exist with the shared settings.
- In the *Database Server Name* field in the *Database Server Logon* window, if specifying the machine name does not work, use the IP address of the server machine. Be sure the format is consistent with what you have defined for the license server.
- When you perform an upgrade from SAP Business One 2005 A SP01 or 2007 A to SAP Business One 8.8, your previous SBO Mailer e-mail signature settings are automatically copied to the Common database and appear in the *E-Mail Settings* window, on the *Common E-Mail Signature* tab.

To access these settings, from the SAP Business One *Main Menu*, choose *Administration* → *System Initialization* → *E-Mail Settings*.

- If you have already installed Crystal Reports Basic 2008 for SAP Business One and have not upgraded SAP Business One client, execute the **SAP Business One Crystal Reports Integration Package.exe** file in `C:\Program Files\SAP\SAP Business One\Crystal`.



#### Note

The folder path shown above may be different on your computer, depending on where you have installed SAP Business One and Crystal Reports Basic 2008 for SAP Business One. You can use the Microsoft Windows search facility on your computer to locate the folder and the file.

- To have SBO Mailer's signature copied after upgrade, do the following:
  - a. To open the *SAP Business One Service Manager* window, in the Windows system tray, double-click  (*SAP Business One Service Manager*). Alternatively, choose *Start* → *Programs* → *SAP Business One* → *Server Tools* → *Service Manager*.
  - b. In the *SAP Business One Manager* window, in the *Service* dropdown list, select *SBO Mailer*, and then choose the *Connection* button.
  - c. In the *Connection Settings* window, specify values in the *DB Type* and *DB Server* fields, and then choose the *OK* button.
  - d. Log off SAP Business One and log on to SAP Business One again. You will find that the signature was copied.

### 5.1.6. Troubleshooting Upgrading Add-Ons

When upgrading add-ons in an upgraded company whose server name was previously something like `(local)`, you may encounter a message about installation failure.

SAP Business One has introduced the license security mechanism, and we do not recommend that you specify a server name with something like `(local)`. In this case, during an upgrade, the user defines the server name as an IP address or a machine name. The application does not find the old `(local)` name of the upgraded company, which prevents old add-ons from being upgraded.

To solve this problem, proceed as follows:

1. Go to the ...\\SAP Business One\\ folder and locate the AddonsLocalRegistration.sbo file.
2. Change the server name of each related add-on to the new name specified in the license server. For example, **old: <Common ID="1" Name="(local)"/> | new: <Common ID="1" Name="MyServerName"/>**.

## 5.2. Upgrading Directly from Product DVD Folders

You can upgrade the components manually by running the following files from the Upgrade DVD folder:

- Server components:
  - Server Tools: ...\\Packages\\Server Tools\\Setup.exe
  - Common Upgrade: ...\\Packages\\Upgrader Common\\Upgrade.exe
  - Help Upgrade: ...\\Packages\\Upgrader Help\\Upgrade.exe
  - Add-Ons Upgrade: ...\\Packages\\Upgrader AddOns\\Upgrade.exe
- Client components:
  - Mail and Fax Service: ...\\Packages\\Server Tools\\Setup.exe
  - SDK: Manually uninstall and then upgrade using the SDK InstallShield installer under: ...\\Packages\\SDK\\ Setup.exe
  - Data Transfer Workbench – Manually uninstall and then upgrade by using the Data Transfer Workbench InstallShield installer under: ...\\Packages\\Data Transfer Workbench\\Setup.exe
  - Add-On Outlook Integration – Manually uninstall and then upgrade using the DTW InstallShield installer under: ...\\Packages\\Outlook Integration standalone\\Setup\_OIS.exe

# 6. Performing Database Maintenance Tasks

This section provides information about checking and maintaining your database system. Database activities depend on the nature of your organization's day-to-day work. There are many factors influencing system performance, such as disk space availability, the number of transactions occurring each day, and so on. It is essential to perform daily and regular checks to ensure the efficient operation of SAP Business One. System performance depends on the correct administration of the database.

This section also lists all the stored procedures quoted in the SAP Business One 8.8 application.

## 6.1. Database Server Administration

This section provides basic information about the SQL Server environment, the way a database management system stores and accesses the data, and the database administration tool. The information comprises the following topics:

- Starting and stopping database services
- Performing weekly tasks
- Performing regular tasks
- Performing backups
- Performing restoration

### 6.1.1. Starting and Stopping Database Services

Occasionally, it is necessary to stop and start database services manually, for example, when you perform a complete backup of the database.

#### Procedure

- To stop database services:
  - a. Verify that no clients are logged on to SAP Business One.
  - b. To open SQL Server Management Studio, choose *Start* → *All Programs* → *Microsoft SQL Server 2005* or *Microsoft SQL Server 2008* → *SQL Server Management Studio*.
  - c. In the *Object Explorer* window, right-click the database server machine on which your SAP Business One database is installed and choose *Stop*.
- To start database services:
  - a. To open *SQL Server Management Studio*, choose *Start* → *All Programs* → *Microsoft SQL Server 2005* or *Microsoft SQL Server 2008* → *SQL Server Management Studio*.
  - b. In the *Object Explorer* window, right-click the database server machine on which your SAP Business One database is installed and choose *Start*.



#### Note

If you are not able to log on to SAP Business One, and the dialog box for choosing a company appears with an empty list, check whether SQL Server is running.

If you log off the SQL Server services, all user processes are terminated, but the database services keep running.

## 6.1.2. Weekly Tasks



### Recommendation

Perform the following tasks on a weekly basis, or more often if warranted by the database size and the volumes of daily or weekly transactions in SAP Business One.

The tasks are:

- Checking database consistency
- Running the *Update Statistics* command

### 6.1.2.1. Checking Database Consistency

A database consistency check performs a thorough check of the entire database. It examines all tables in the database to ensure that index and data pages are linked correctly and that indexes are in the correctly sorted order. It also checks that all pointers are consistent and that the data information on each page and page offset is reasonable. The database consistency check enables early recognition of problems and prevents escalations and possible loss of data.

Ensure the following:

- Schedule consistency checks with the planning calendar.
- Run consistency checks on the weekends.
- Do not schedule any other task at the time of the consistency check run.



Note

On the SQL Server level, the SAP Business One database consistency check executes the `DBCC CHECKDB` command, which locks user tables, indexes, and system tables throughout the run.

In addition, it is I/O intensive and, therefore, should not run during normal operations, but at times when the system load is low.

### 6.1.2.2. Running the Update Statistics Command

The `UPDATE STATISTICS` statement defines the storage requirements of tables and indexes as well as the value distribution of columns, and stores this information in the database catalog.

The *Optimizer* uses these values to determine the best strategy for executing SQL statements. Use the `sp_updatestats` procedure on all user-defined tables in the required database.

When the update statistics statement is executed, the following information about the table is stored in the database catalog:

- Number of rows
- Number of pages used
- Size of indexes
- Value distribution within columns or indexes

### 6.1.3. Regular Tasks

Performing scheduled tasks is essential for ensuring database availability and minimizing the risk of data loss. Perform the following tasks on a regular basis, as determined by your database size and transaction volumes:

- Verify that the database server is running
- Verify that the backups run successfully
- Check the database
- Shrink the transaction log
- Monitor disk space

#### 6.1.3.1. Verifying that the Database Server is Running

You must complete this task every morning. SAP Business One clients cannot work if the database server is not running.

##### Procedure

Run the SAP Business One client and log on to your database server. If you can log on, the database server is running.

#### 6.1.3.2. Verifying that Backups Run Successfully

Backups of your database are essential for recovering the SAP Business One system in case of failure. Use this procedure to verify that previous backups ran successfully.

##### Procedure

1. To open SQL Server Management Studio, choose *Start* → *All Programs* → *Microsoft SQL Server 2005* or *Microsoft SQL Server 2008* → *SQL Server Management Studio*.
2. Select the *Management* folder and check the SQL server logs.
3. Search for the last backup message.
4. Verify that the backup ran successfully and that the date fits the scheduled settings.

The following is an example of a successful backup message:

```
" Database backed up. Database: myDB, creation date(time):
2005/12/21(10:57:16), pages dumped: 502701, first LSN: 37211:18:108,
last LSN: 37211:91:1, number of dump devices: 1, device information:
(FILE=1, TYPE=DISK: { 'E:\temp\bck\myDB' }). This is an informational
message only. No user action is required."
```

#### 6.1.3.3. Checking the Database

The SQL Server database uses disk space to store the database data files and the daily transaction log files. If you do not set up a schedule for the backup of the transaction log, the log file can grow too big, causing a decline in system performance. Ultimately, this can stop the database system.

The transaction log should not fill more than 60-70% of the total available size. If it regularly exceeds this level between two backups, you must save the transaction log more frequently. You can determine in SQL Server Management Studio that the data file and transactional log file are set to grow automatically.

In addition, check the utilization of table space and the content of error logs on a regular basis.

## Procedure

1. To check the size of the data file and the transaction log file, proceed as follows:
  - a. Open SQL Server Management Studio by choosing *Start* → *All Programs* → *Microsoft SQL Server 2005* or *Microsoft SQL Server 2008* → *SQL Server Management Studio*.
  - b. Select the database for which you want to check the transaction log size.
  - c. Right-click the selected database and choose *Reports* → *Standard Reports* → *Disk Usage*. In the right pane, you can see the report.
  - d. Verify that there is enough free space, based on your organization's needs, for both the data file and the transaction log.
2. To set grow options for database files, proceed as follows:
  - a. Open SQL Server Management Studio and select a database.
  - b. Right-click the selected database and choose *Properties*.
  - c. In the *Properties* window, from the menu on the left, choose *Files*.  
The database files appear in the right pane.
  - d. In the *Autogrowth* field, set a value according to your organization's needs.
3. To check error logs, proceed as follows:
  - a. Open SQL Server Management Studio.
  - b. Select the *Management* folder and check the *SQL Server Logs* folder.
  - c. Check for error messages and verify that no problems have occurred.

### 6.1.3.4. Shrinking the Transaction Log

Manually shrinking the transaction log file frees up disk space and minimizes the risk of data loss.

You can shrink it first virtually and then physically.

Shrinking the transaction log does not reduce the size of a physical log file. It removes enough inactive virtual logs to reduce the log file to the requested size.

## Procedure

1. To open SQL Server Management Studio, choose *Start* → *All Programs* → *Microsoft SQL Server 2005* or *Microsoft SQL Server 2008* → *SQL Server Management Studio*.
2. Select the required system database.
3. Right-click the selected database and choose *New Query*.  
The right pane displays the *Query* window.
4. In the *Query* window, enter the following command:  

```
BACKUP LOG <sid> WITH NO_LOG
```

Where:

<sid> = name of the database, for example, `sbodemo_us`

Right-click anywhere on the query tab and choose *Execute*.

This statement reduces the size of the logical log. It removes the inactive part of the log without making a backup copy and truncates the log.

Specifying a backup device is unnecessary because the log backup is not saved.

After you back up the log using `NO_LOG`, the changes recorded in the log are not recoverable. For recovery purposes, execute a manual backup of your database; see SAP Note [557412](#).

5. To reduce the size of the physical log file, enter the following command:

```
DBCC SHRINKFILE (<name_logfile>, <size>)
```

Where:

`<name_logfile>` = the logical name of the shrunk file, for example, `sbodemo_us_log`

`<size>` = the required size for the file in megabytes, expressed as an integer. If the size is not specified, `DBCC SHRINKFILE` reduces the size to the default file size, for example, 10 MB.

Right-click anywhere on the query tab and choose *Execute*.



#### Note

In SQL Server, a `DBCC SHRINKDATABASE` or `DBCC SHRINKFILE` operation attempts to shrink the physical log file to the requested size (subject to rounding).

### 6.1.3.5. Monitoring Disk Space

We recommend that you regularly check the amount of free space available on the disk.

### 6.1.4. Backup

This section provides an introduction to backups and information about the necessity of a backup strategy. Databases are always at risk of damage and it is vital to implement a security strategy.

To keep the risk of data loss low, ensure that you develop a backup strategy that suits your business and the requirements of your customers. An important factor to consider is the volume of data that you process each day. In case of data loss, you are required to retrieve this data manually, back to the time of your last backup.

With SAP Business One, we recommend backing up your application database regularly.



#### CAUTION

SAP Business One can save the configuration data only when you have write and read access to the user profile folder.

#### 6.1.4.1. Backup Strategies

To choose the appropriate backup-and-restore strategy, you need to identify the requirements for the availability of your data. Your overall backup strategy should define the type and frequency of backups and the nature and speed of the hardware.

Consider the complexity of each strategy. Full backups are easy to implement. If you are considering backing up your transaction log as well, test all backup-and-restore procedures intensively.

When choosing your backup strategy, you can use the following methods:

- Full Backup of Your Data

In SQL Server, a full backup is a consistent copy of your database at a certain time. Because only used objects are saved, normally the copy is smaller than the original database. Full backups should be scheduled for a time when there is a low load on the database server.

- Backup of Transaction Log

The Transaction Log is a serial record of all the transactions that have been performed on the database since the transaction log was last backed up. With transaction log backups, you can recover the database to a specific point in time or to the point of failure.

The transaction log grows over time. If the transaction log exceeds a certain size, it can cause problems in SQL Server. To prevent those problems, we recommend doing regular backups of the transaction log, which will truncate the transaction log.

- **Backup of SAP Business One Subdirectories**

To avoid data loss, you must back up regularly the following subdirectories of SAP Business One:

- ... \Program Files\SAP\SAP Business One\Attachments\
- ... \Program Files\SAP\SAP Business One\Bitmaps\
- ... \Program Files\SAP\SAP Business One\ExclDocs\
- ... \Program Files\SAP\SAP Business One\WordDocs\

These directories contain Word and Excel documents and bitmaps. To store the backed up directories, you can use a file archiving application.



#### Recommendation

Test your backup and recovery procedures thoroughly. Testing helps to ensure that you have the required backups to recover from various failures, and that your procedures can be executed smoothly and quickly if a failure occurs.

The frequency of the backups depends on the following factors:

- Processed data volume
- Customer requirements
- Number of users

Consider how much time you would need to invest in retrieving your data manually after a data loss. After installing or upgrading SAP Business One, perform a full backup of the SBO\_DB database.

### 6.1.4.2. Backup Types

You can back up your data with SAP Business One Service Manager, the backup functionality of remote support platform for SAP Business One, or SQL Server Management Studio, using one of the backup types described below:

- **Full Backup Using SAP Business One Service Manager**

This backup type suits small and medium-sized businesses. You can perform only full backups of your application database.

Advantages include easy setup and restoration, since you have to restore only the full backup.

Disadvantages include the following:

- Requires large amount of space
- Is time consuming
- Is suitable for backing up once a day, which means that you can lose a whole day's data.

For more information, see Configuring Backup Services.



#### CAUTION

Set *Recovery Model* to the *Simple Model* option. We recommend using the backup service from SAP Business One Server Suite Manager only when performing a simple recovery. Always back up the company database before performing a restore operation; during restore, the database reverts to the state it was in when the backup was created.

- Full Backup Using SQL Server Management Studio

This backup type provides more functionality than the Service Manager and can save the backup directly to tape. If you save the backups on disk, make sure the backup gets copied to another media, such as another hard disc, DVD, or tape.

Do a manual backup of the files and directories of your hard disk.

- Full Backup and Transaction Log Backup Using SQL Server Management Studio



#### Note

To use SQL Server Management Studio to perform transaction log backups, you should have already selected the *Full recovery model* option.

The advantage of this type of backup is that the monitoring is partly automated and you can save the backups directly to a tape. You can also add alerts. Disadvantages include a relatively complicated setup and the need to manually back up the subdirectories of SAP Business One. However, SAP Business One does not fully support all of the features available with SQL Server Management Studio; therefore, if you require support from SAP in the future, your database backup may not be fully compatible.



#### Note

- Full Recovery - you can do accumulated backups and move back to a specific point in time.
- Simple Recovery - you can only back up the whole database; after the restoration, the database goes back to exactly the same point at which it was backed up.



#### CAUTION

SAP Business One backup service does not support a full recovery with its extra features, only the simple recovery. If you manage the backup for the database without the SAP Business One backup service, you can use the full recovery. But if any database issue requires investigation, SAP support might not be able to use these backups, because they were not generated with simple recovery mode and they might contain only the newly added data and not the full backup.



#### Example

The following table summarizes the main options for each backup type:

Backup Type	Only Full Backup	Full Backup	Full Backup and Transaction Log Backup
Tool	SAP Business One Service Manager	Microsoft SQL Server Enterprise Manager	Microsoft SQL Server Enterprise Manager
Recovery model	Simple	Simple	Full
Installation effort	Low	Medium	High
Monitoring effort	Medium	Medium	Medium
Backup destination	Disk	Disk or Tape	Tape or disk

Backup Type	Only Full Backup	Full Backup	Full Backup and Transaction Log Backup
Automatic file backup	Yes	Yes	No
Complexity	Low	Medium	High

**Note**

SAP Business One Product Support only accepts backups on destination disks. If you back up on tape, you must first restore it from there, and back it up again, using a destination disk, prior to sending it to SAP Support.

#### 6.1.4.3. Troubleshooting Backups

To ensure that your database backups are successful, check your server at regular intervals. Ensure that you have enough disk space on the server on which your database is stored. If you store your backup on another server, check that there is enough free space.

The basic checks include:

- Drive space
- Disk subsystem errors
- Tape drive errors
- Event Viewer
- Regular evaluation of your recovery and restore process

#### Procedure

1. To check the disk space, proceed as follows:
  - a. In Microsoft Windows Explorer, right-click *Hard Disk Drives* and choose *Properties*. The *Properties* window appears.
  - b. Check the free space on your hard disk.

The free space you need on your hard disk depends on the volume of data you process each day.

Depending on the disk system and the tape drive, scan for disk errors at regular intervals. For more information, see your tape drive documentation.
2. To check if errors occurred in the operating system or in the database server, proceed as follows:
  - a. Choose *Start* → *Control Panel* → *Administrative Tools* → *Event Viewer*.
    - Events that occur in the system are stored in three different logs. Within these logs, events are classified as type: *Information*, *Warning*, or *Error*.
    - Events that occur within the database server are stored in the *Application* folder. In the *Source* column of the application log, you can see the source application for a specific event.

- b. Double-click an event to display more information.
- c. In the *Application Log*, look for error events that may indicate backup failures.

If you perform network backups, look for network errors in the *System* and *Application* logs.

### 6.1.5. Restore

If a failure damages the system, restoring the database restores the integrity of the data in most cases. Ideally, the downtime of the system will be minimal and no data should be lost. Develop a restore strategy that considers the maximum downtime allowed for your system, and estimate how much time you need to react to a system failure. Analyze the problem and take appropriate measures.

You may be required to change hardware or reinstall the operating system before restoring your database.

Ensure that an employee familiar with the restore procedures is available at all times. Testing of the restore procedures improves the chances of a successful and fast recovery of your data. We recommend doing test backups and test restores at regular intervals.

Restore the database in the following situations:

- Hardware failure
- Migration to a new hardware
- Logical errors
- Virus
- Testing

#### 6.1.5.1. Restore Checklist

The steps below comprise a general procedure for restoring data. You may find that you do not need to perform each step for your particular case.

1. Analyze the problem.
2. If possible, save the current active transaction log.



If the database fails, but SQL Server is still available, the transaction log contains data that has not been saved yet. You can save it only if the following are not damaged:

- Hard disk on which the transaction log is saved
- Hard disk on which the executable files are located

If you cannot save the transaction log, you can only restore the changes that occurred after the backup of the last transaction log.

3. Use the necessary hardware.
4. Configure your database server.
5. Restore your last full backup.
6. Restore the transaction log.
7. Test all executed measures.
8. Release to productive operation.

### 6.1.5.2. Saving the Current Transaction Log



#### CAUTION

Before you start the restore process, verify that the installed service pack has not changed since the time of the backup.

#### Procedure

1. Insert a new tape and, to open SQL Server Management Studio, choose *Start* → *All Programs* → *Microsoft SQL Server 2005* or *Microsoft SQL Server 2008* → *SQL Server Management Studio*.

2. Select the relevant database, right-click it, and choose the *New Query* menu.

3. In the *Query* window, run the following command:

```
BACKUP LOG <sid> TO <tape> WITH NO_TRUNCATE, FORMAT
```

Where:

<sid> = name of the database, for example, `sbodemo_us`

<tape> = your backup tape name (case sensitive)

4. After saving the transaction log file, you can change any damaged hardware and, if necessary, reinstall your operating system and your SQL Server database, as described in [Installing SAP Business One](#).

5. Restore your last full database backup.

The database is now in the same condition as it was when the backup was carried out. After you restore the transaction logs, finished transactions are applied to the database again.

6. Perform a roll forward until the end of the transaction log.

The database is now in the same condition as it was at the time of the last transaction log backup. Because this condition is not consistent, perform a rollback for all unfinished transactions.

The <msdb> database stores the history of backups and of restore operations in the backup set and backup file of the tables. If the `msdb` database is available, the recovery is based on the saved history in `msdb`. For information, see *Restoring Data when msdb is Available*.

If the system database `msdb` is not available, you have to restore it and reconstruct the history. For information, see *Restoring Data when msdb is Unavailable*.



#### Recommendation

To ensure a successful restore operation, you can test the restore process against a test database. If you use the transaction log file, we recommend testing all procedures thoroughly.

### 6.1.5.3. Restoring Data when msdb is Available

This procedure provides instructions for restoring your database when the database `msdb` is available. When you use the history function, the last backups are selected automatically.

#### Procedure

1. To enable the system to restore the database, close SAP Business One.
2. To launch SQL Server Management Studio, choose *Start* → *All Programs* → *Microsoft SQL Server 2005* or *Microsoft SQL Server 2008* → *SQL Server Management Studio*.

3. Right-click the required database and choose *Tasks* → *Restore* → *Database*.  
A list of performed backups appears. The last full backup and the subsequent transaction log backups are selected automatically.
4. In the *Restore Database* window, on the *Options* tab, select the following options:
  - *Overwrite over existing database*  
To overwrite the existing database, select this option.
  - *Preserve the replication settings*
  - *Prompt before restoring each backup*  
Prompt the user before restoring each backup to prevent a user from inadvertently restoring a backup.
  - *Restrict access to the restored database*
  - *Restore database file as*  
In the *Restore As* column, change the path name if you are restoring the database on a different server.
5. To confirm, choose the *OK* button.  
The system starts the database restore process.
6. Wait until the following message is displayed:  
`Restore of Database <dbname> completed successfully.`  
SQL Server copies the data from the backups, restoring the database and creating all dependent files.

#### 6.1.5.4. Restoring Data when msdb is Unavailable

This section provides instructions for restoring your database when the history in the database <msdb> is not available, for example, after you reinstall SQL Server. For this procedure, you need your last full backup and all subsequent backups of the transaction log.

##### Procedure

1. To enable the system to restore the database, close SAP Business One.
2. To launch SQL Server Management Studio, choose *Start* → *All Programs* → *Microsoft SQL Server 2005* or *Microsoft SQL Server 2008* → *SQL Server Management Studio*.
3. Create a new database as follows:
  - a. Right-click the *Databases* folder and choose *Tasks* → *Restore* → *Database*.  
The *Restore Database* window appears.
  - b. Specify a name for your new database (the name of your company in SAP Business One).
4. Right-click the new database and choose *Tasks* → *Restore* → *Database*.
5. Select the *Restore: From Device* option and choose the *Browse* button.
6. In the *Specify Backup* window, choose the *Add* button.
7. In the *Locate Backup File* window, locate and select the file containing your last full backup.  
Choose the *OK* button.

8. In the *Specify Backup* window that opens, locate and select the file containing your last full backup.  
Choose the *OK* button.
9. In the *Restore Database* window, select the required back sets and on the *Options* tab make the following settings:
  - Select the *Overwrite the existing database* checkbox.
  - Under the *Restore As* column, change the path, if necessary, for example, if you are restoring the database on a different server where the path name does not exist.
  - In the *Recovery completion state* area, select the descriptor *Leave database non-operational but able to restore additional transaction logs*.
 Choose the *OK* button. The system starts restoring the database.
10. Wait for the following message:  
Restore of Database <sid> completed successfully.  
Continue to the procedure for restoring transaction logs.

#### 6.1.5.4.1. Restoring Transaction Logs

##### Procedure

1. Right-click the database you want to restore and choose *Task* → *Restore* → *Transaction Log*.
2. Select the *Restore: From Device* option and choose the *Browse* button.
3. In the *Specify Backup* window, choose the *Add* button.
4. In the *Locate Backup File* window that appears, locate and select the file containing your last full backup.  
Choose the *OK* button, and do the same in the *Specify Backup* window that opens.
5. In the *Restore Database* window, on the *Options* tab, make the following settings:
  - Select the *Overwrite the existing database*.
  - In the *Recovery completion state* area, choose the option *Leave database not operational but able to restore additional transaction logs*.
  - Choose the *OK* button.
 The system starts to restore the database.
6. Repeat this procedure for all transaction logs.

When you reach the last transaction log, in the *Recovery Completion State* pane, select the option: *Leave database operational. No additional transaction log can be restored*.

#### 6.1.5.5. Troubleshooting Restore

The only way to verify that you can do so is to regularly restore backups using the same medium that you would use in disaster recovery.



##### Recommendation

At regular intervals, perform the procedures that would take place in case of a disaster, including the restore process of full and transaction log backups.

## 6.2. Data Transfer Workbench for SAP Business One

SAP Business One implementations require you to move data from legacy systems to the new SAP Business One system. Business data (such as customers, vendors, and products) must be available in the new system before it goes live.

Data Transfer Workbench provides a wizard that imports new data into SAP Business One and updates existing data. To simplify the preparation of data for the import, SAP provides predefined data file templates. Data Transfer Workbench records import activities so you can track the data migration process.

For more information, see the Data Transfer Workbench online help file in the document resource center at <http://service.sap.com/smb/sbo/documentation>.

The data migration process comprises the following tasks:

1. Extracting data files from your legacy system
2. Cleaning data
3. Mapping data and converting data
4. Importing data into SAP Business One
5. Checking the results of the import

## 6.3. Stored Procedures

The stored procedures listed below are all used in the SAP Business One 8.8 application. The first table is for the SBO-Common database and the second one is for the company database.



You must not rename or remove any of the items in the list; otherwise, errors could occur when running SAP Business One.

### SBO-Common Database Procedures

SBO- Common Procedures
ClearEnumValues
DeleteAllEnumsAndClasses
DeleteAllObjects
DeleteAllPropertyDefs
DeleteClassDef
DeleteDependentProperties
DeleteEnumType
DeleteMetaObject
DeleteMetaProperty
DeleteMetaRelation
DeletePropertyDef
InsertClassDef

<b>SBO- Common Procedures</b>
InsertClassDefId
InsertEnumType
InsertEnumTypeId
InsertEnumValue
InsertMetaObject
InsertMetaProperty
InsertMetaRelation
InsertPropertyDef
InsertPropertyDefId
NumberPropertyDefs
NumberRelations
OBSSp_GetNextExecFromSchedule
OBSSp.GetServiceRecord
OBSSp_UpdateScheduleRecord
OBSSp_UpdateServiceExec
RGSp_UpdateInstance
RGSp_UpdateLicense
TmSp_AliasUpdate
TmSP_CheckDiskSpace
TmSp_CopyCompany
TmSp_GetCompList
TmSP_GetDbSizeByDrives
TmSp_GetServerTime
TmSp_GetUsers
TmSp_Installer_CreateTmSp
TmSp_Installer_SetFieldValue
TmSp_RefreshCompList
TmSp_RestoreCompany
UpdateClassDef
UpdateEnumType
UpdateMetaObject
UpdateMetaProperty

<b>SBO- Common Procedures</b>
UpdateMetaRelationSeqNo
UpdatePropertyDef
UpdatePropertyDefSeqNo
ClearEnumValues
DeleteAllEnumsAndClasses
DeleteAllObjects
DeleteAllPropertyDefs
DeleteClassDef
DeleteDependentProperties
DeleteEnumType
DeleteMetaObject
DeleteMetaProperty
DeleteMetaRelation
DeletePropertyDef
InsertClassDef

### **Company Database Procedures**

<b>Company Database Procedures</b>
_TmSp_AliasUpdate_OUSR
_TmSp_AliasUpdateAfter
_TmSp_AliasUpdateBefore
_TmSp_ControlAccountUpgrade_OCRD
_TmSp_ConvertGrpLine_OACT
_TmSp_ExpnsUpdateOnDocs
_TmSp_FormattedSearchUpdate
_TmSp_MthDate_Update_JDT1
_TmSp_RestoreIsCommitted_OIBT
_TmSp_SetCategoryAtOFPR
_TmSp_SetLineNumAtADO3
_TmSp_SetLineNumAtDOC3
_TmSp_SetLineNumAtDOC5
_TmSp_SetLineSeqAtDOC4

Company Database Procedures
_TmSp_SetLineSeqAtPMN5
_TmSp_SetUniqueDocEntryAtOCRD
_TmSp_ShekelUpdate
_TmSp_UpdateCreateDateOnOINM
_TmSp_UpdateDoubleName
_TmSp_VariableUpdate_OUQR
_TmSp_VatSumCalc
SBO_SP_PostTransactionNotice
SBO_SP_PostTransactionSupport
SBO_SP_TransactionNotification
SBO_SP_TransactionSupport
TmSp_adding_To_OITW
TmSp_AddSqlUser
TmSp_ChooseCIN4Correction
TmSp_ChooseINV4Correction
TmSp_ConGrpLine_OACT_recur
TmSp_ConvertGrpLine_OACT
TmSp_CorrActReport
TmSp_CorrActReport_BP
TmSp_CorrActReport_BP_Split
TmSp_CorrActReport_Split
TmSp_DragOn
TmSp_DragOnPk
TmSp_FifoGetINM_Records
TmSp_GetDocVatTotals
TmSp_GetMaxRange
TmSp_GetOpenRCTs
TmSp_GetOpenRINs
TmSp_GetUsers
TmSp_GetWDD
TmSp_Installer_SetFieldValue
TmSp_OpportAnalysis

Company Database Procedures
TmSp_OpportAnalysis_CRD
TmSp_OpportAnalysis_ITM
TmSp_OpportAnalysis_SLP
TmSp_OutboxSync
TmSp_PicknPackCreateTempTable
TmSp_Purch_An_Crd_Det_Y
TmSp_Purch_An_Crd_Grp_M
TmSp_Purch_An_Crd_Grp_Y
TmSp_Purch_An_Crd_Sng_M
TmSp_Purch_An_Crd_Sng_Y
TmSp_Purch_An_Itm_Det_Y
TmSp_Purch_An_Itm_Grp_M
TmSp_Purch_An_Itm_Grp_Y
TmSp_Purch_An_Itm_Sng_M
TmSp_Purch_An_Itm_Sng_Y
TmSp_Purch_An_Slp_Sng_M
TmSp_Purch_An_Slp_Sng_Y
TmSp_RebuildAcctMatch
TmSp_RebuildMatchHistory
TmSp_Replace_Table
TmSp_Sales_An_Crd_Det_Y
TmSp_Sales_An_Crd_Grp_M
TmSp_Sales_An_Crd_Grp_Y
TmSp_Sales_An_Crd_Sng_M
TmSp_Sales_An_Crd_Sng_Y
TmSp_Sales_An_Itm_Det_Y
TmSp_Sales_An_Itm_Grp_M
TmSp_Sales_An_Itm_Grp_Y
TmSp_Sales_An_Itm_Sng_M
TmSp_Sales_An_Itm_Sng_Y
TmSp_Sales_An_Slp_Sng_M
TmSp_Sales_An_Slp_Sng_Y

Company Database Procedures
TmSp_SetBalanceByJdt
TmSp_SetBgtAccumulators_ByJdt
TmSp_SetGIStamp
TmSp_SetVendorDeductPercent
_TmSp_AliasUpdate_OUSR
_TmSp_AliasUpdateAfter
_TmSp_AliasUpdateBefore
_TmSp_ControlAccountUpgrade_OCRD
_TmSp_ConvertGrpLine_OACT
_TmSp_ExpnsUpdateOnDocs
_TmSp_FormattedSearchUpdate
_TmSp_MthDate_Update_JDT1
_TmSp_RestoreIsCommitted_OIBT
_TmSp_SetCategoryAtOFPR
_TmSp_SetLineNumAtADO3
_TmSp_SetLineNumAtDOC3
_TmSp_SetLineNumAtDOC5
_TmSp_SetLineSeqAtDOC4
_TmSp_SetLineSeqAtPMN5
_TmSp_SetUniqueDocEntryAtOCRD
_TmSp_ShekelUpdate
_TmSp_UpdateCreateDateOnOINM
_TmSp_UpdateDoubleName
_TmSp_VariableUpdate_OUQR
_TmSp_VatSumCalc
SBO_SP_PostTransactionNotice
SBO_SP_PostTransactionSupport
SBO_SP_TransactionNotification
SBO_SP_TransactionSupport
TmSp_adding_To_OITW
TmSp_AddSqlUser
TmSp_ChooseCIN4Correction

Company Database Procedures
TmSp_ChooseINV4Correction
TmSp_ConGrpLine_OACT_recur
TmSp_ConvertGrpLine_OACT
TmSp_CorrActReport
TmSp_CorrActReport_BP
TmSp_CorrActReport_BP_Split
TmSp_CorrActReport_Split
TmSp_DragOn
TmSp_DragOnPk
TmSp_FifoGetINM_Records
TmSp_GetDocVatTotals
TmSp_GetMaxRange
TmSp_GetOpenRCTs
TmSp_GetOpenRINs
TmSp_GetUsers
TmSp_GetWDD
TmSp_Installer_SetFieldValue
TmSp_OpportAnalysis
TmSp_OpportAnalysis_CRD
TmSp_OpportAnalysis_ITM
TmSp_OpportAnalysis_SLP
TmSp_OutboxSync
TmSp_PicknPackCreateTempTable
TmSp_Purch_An_Crd_Det_Y
TmSp_Purch_An_Crd_Grp_M
TmSp_Purch_An_Crd_Grp_Y
TmSp_Purch_An_Crd_Sng_M
TmSp_Purch_An_Crd_Sng_Y
TmSp_Purch_An_Itm_Det_Y
TmSp_Purch_An_Itm_Grp_M
TmSp_Purch_An_Itm_Grp_Y
TmSp_Purch_An_Itm_Sng_M

Company Database Procedures
TmSp_Purch_An_Itm_Sng_Y
TmSp_Purch_An_Slp_Sng_M
TmSp_Purch_An_Slp_Sng_Y
TmSp_RebuildAcctMatch
TmSp_RebuildMatchHistory
TmSp_Replace_Table
TmSp_Sales_An_Crd_Det_Y
TmSp_Sales_An_Crd_Grp_M
TmSp_Sales_An_Crd_Grp_Y
TmSp_Sales_An_Crd_Sng_M
TmSp_Sales_An_Crd_Sng_Y
TmSp_Sales_An_Itm_Det_Y
TmSp_Sales_An_Itm_Grp_M
TmSp_Sales_An_Itm_Grp_Y
TmSp_Sales_An_Itm_Sng_M
TmSp_Sales_An_Itm_Sng_Y
TmSp_Sales_An_Slp_Sng_M
TmSp_Sales_An_Slp_Sng_Y
TmSp_SetBalanceByJdt
TmSp_SetBgtAccumulators_ByJdt
TmSp_SetGIStamp
TmSp_SetVendorDeductPercent
TmSp_UpdatingOIT

## 6.4. Getting Support

We recommend that you assign a contact person who can deal with issues concerning SAP Business One. This contact person should follow the support process described below. If a problem cannot be solved using this process, contact SAP support.



### Note

Before you contact SAP support, check the version information of your SAP Business One application.

To view the version number, from the SAP Business One *Help* menu, choose *About*.

You can get support from your partner using either the Customer Portal or the Hotline.

The Hotline is a number provided by your partner that you can call to get support during official support hours. The partner support staff logs the problem on SAP Service Marketplace. The partner support staff try to solve your problem. If they are unsuccessful, they forward the problem to the SAP Support team.



### Recommendation

You can log your problem message in SAP Business One Customer Portal at <http://service.sap.com/smb/sbocustomer/documentation>. This lets you track the status of the message. Your SAP Business One partner can provide a user name for this portal. There you can find more information about how to create a message and track its status.

### 6.4.1. Using Online Help and SAP Notes

If you have a question or problem concerning SAP Business One, check the online help.

If that does not provide an answer, search for corresponding SAP Notes, as follows:

#### Procedure

1. Log on to the SAP Business One portal as follows:
  - If you are a partner, log on to <https://service.sap.com/smb/sbosupport>
  - If you are a customer, log on to <https://service.sap.com/smb/sbocustomer>.
2. Choose the *SAP Notes* option.

You can either display a Note directly by providing the number of the Note, or you can search for a Note by entering key words. Think about the keywords to use, and choose the application area.

The application area for SAP Business One starts with "SBO".



### Recommendation

The following example illustrates the difference between a usable and an unusable search.

#### Problem Message

"The performance of the SAP Business One program is not acceptable. Executing all operations takes a long time. The problem occurs only on one front-end."

**Use:** Key words *Performance* and *SAP Business One*. Specify the component *SBO-BC\**.

**Do not use:** Phrases such as *SAP Business One runs long* or *SAP Business One is too slow*.

## 6.4.2. Using the Support Desk

You can use the support desk to search for known solutions in the SAP support database on SAP Service Marketplace. The support desk establishes a direct link to SAP Service Marketplace, which stores all the known solutions to known problems.

For more information, see the online help for SAP Business One on the SAP Business One product DVD or in the document resource center at <https://service.sap.com/smb/sbocustomer>.

### Prerequisites

You have a valid S user ID number.

An S user has authorization to access online support functions offered by SAP. The S user ID information is shipped with the SAP Business One product. If this information is missing or incorrect, contact your SAP Business One partner.

### Procedure

To find solutions on SAP Service Marketplace, proceed as follows:

1. From the SAP Business One *Main Menu*, choose *Help* → *Support Desk* → *Find a Solution*.  
The *Support Desk – Find a Solution* window appears.
2. In the *Search Term* field, enter one or more words for which to search.  
You can search for key words or phrases of up to 60 characters.
3. Choose the *Find* button.  
The system calls up the connection to SAP Service Marketplace.
4. Specify your S-user ID and password.  
The system defaults your search criteria and the application area to *SBO\** and starts the search.

## 7. Managing Security in SAP Business One

Your security requirements are not limited to SAP Business One, but apply to your entire system landscape. Therefore, we recommend establishing a security policy that addresses the security issues of the entire company. This section offers several recommendations to help you meet the security demands of SAP Business One.

Your security solution should cover the following aspects:

- *Technical Landscape:* Provides an overview of the technical components and communication paths used in SAP Business One.
- *User Management and Authentication:* Provides system access to legitimate users only and prevents identity impersonation.
- *Database Authentication:* To improve the security of database access, a strong password definition mechanism is introduced.
- *Data Integrity:* To improve data integrity in the database, a new setting is defined to allow specified SAP Business One users to run read-only queries on the company database through SAP Business One's query editors.
- *SAP Business One Authentication and Authorization:* Describes how to restrict access to the SAP Business One database.
- *Network Security:* Supports your communication needs without allowing unauthorized access to your network.
- *Application Security:* Restricts access to users with the necessary permissions.
- *Security Solutions for Microsoft SQL Server and Database Tips:* Provides recommendations for ensuring the security of Microsoft SQL Server.
- *Data Storage Security:* Provides recommendations for secure data storage in SAP Business One.

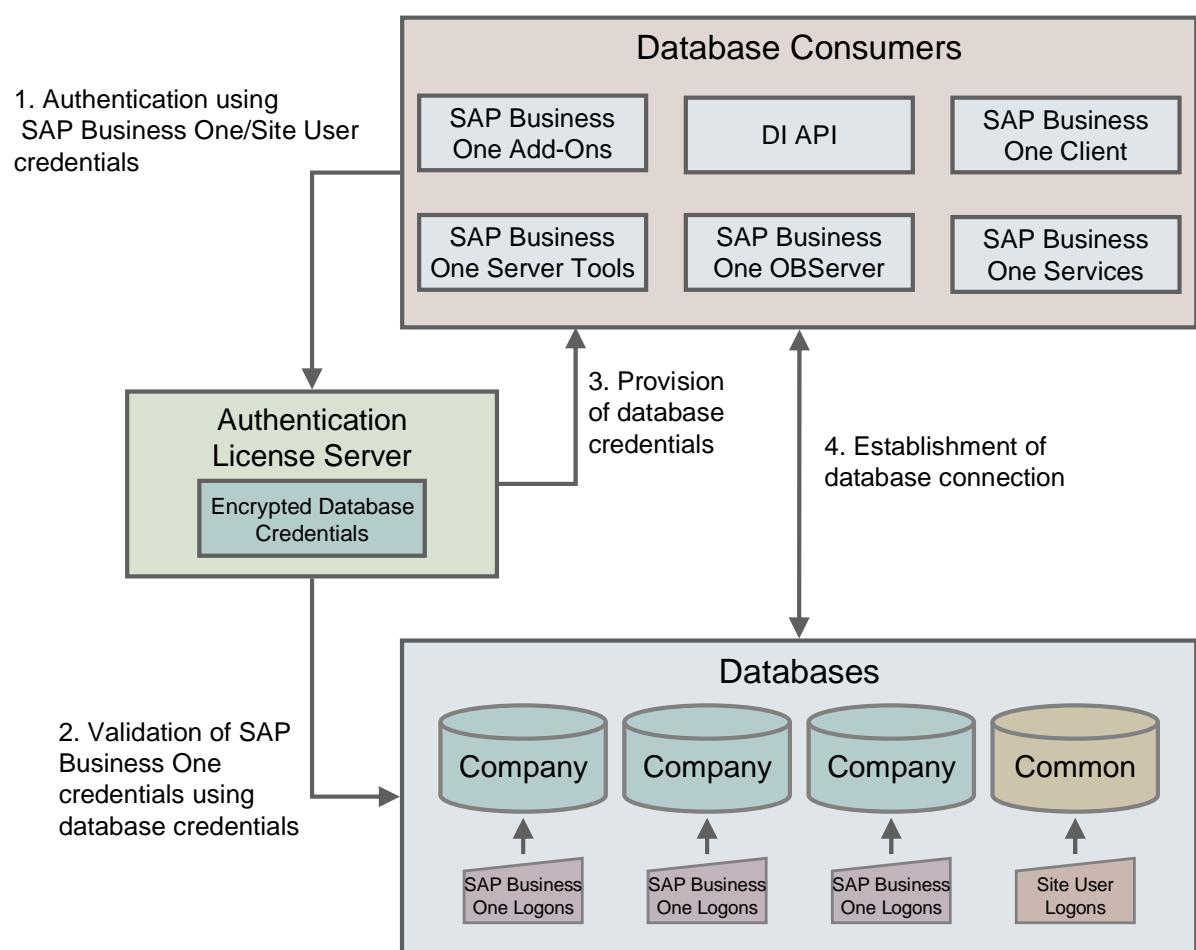
Once you have established your security policy, we recommend that you dedicate sufficient time and allocate ample resources to implement it and maintain the level of security that you require.

### 7.1. Technical Landscape

Figure 4 below is a representation of the security workflow for SAP Business One.

In SAP Business One 8.8, database credentials are saved in the license server, which server as the security server.

Database credentials are obtained by supplying SAP Business One logon credentials for authentication against the license server. Upon successful authentication, the connection to the databases can be established using database credentials from the license server.



**Figure 6: SAP Business One Security Landscape**

## 7.2. User Management and Authentication

This subsection provides an overview of how SAP Business One supports an integrated approach to user administration and authentication.

### 7.2.1. User Management

This section provides an overview of user types and user administration within SAP Business One.

#### 7.2.1.1. User Types

It is necessary to specify different security policies for different types of users. For example, your policy may specify that individual users who perform tasks interactively have to change their passwords on a regular basis, but not users who process job runs. Therefore, SAP classifies these types of users in the application as follows:

- Site user:

This user is automatically defined in SAP Business One. It is not a company user type that can log on to SAP Business One, but serves as site-level authentication for performing the following activities:

- Creating new companies
- Installing or upgrading SAP Business One server
- Importing or exporting the license configuration file
- Assigning read-only users
- Configuring security settings on the license server
- Registering databases on the license server

In SAP Business One, the privileged user types are the following:

- SAP Business One company superusers

When you create a company, a predefined user named *manager* exists in the system. Because of the password policy, you must change the password of the *manager* user at the first logon.

The responsibilities of a superuser entail:

- Defining users in companies and setting user permissions
- Configuring password policy at the company level
- Upgrading a company
- SAP Business One company regular users

You can define company regular users according to different business role requirements.

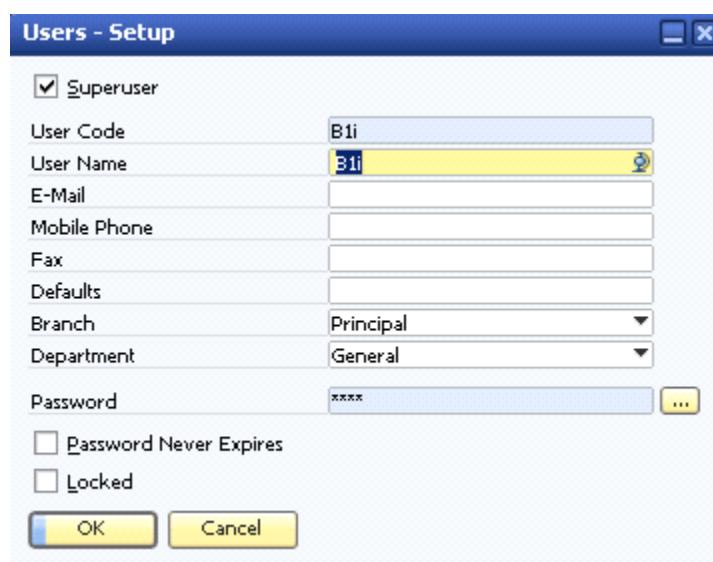
The responsibilities of a regular user are to perform the relevant business work in the SAP Business One application.

### 7.2.1.2. User Administration

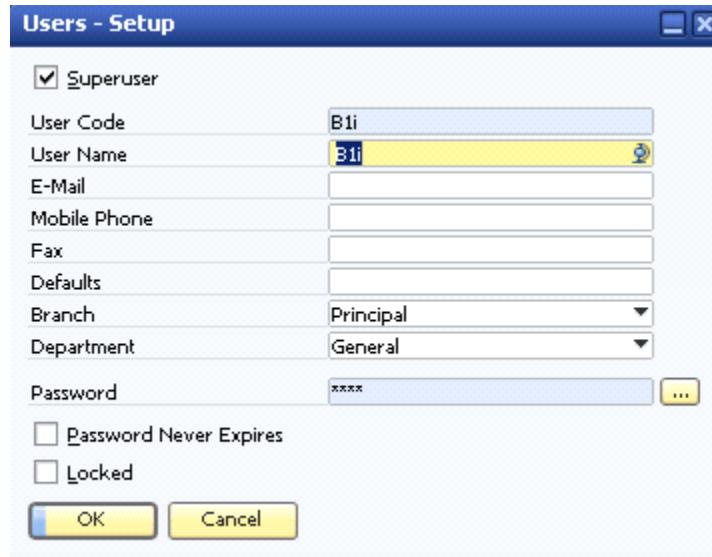
This section describes how to add, remove, or lock an SAP Business One user in the application.

- To add a user in SAP Business One, proceed as follows:

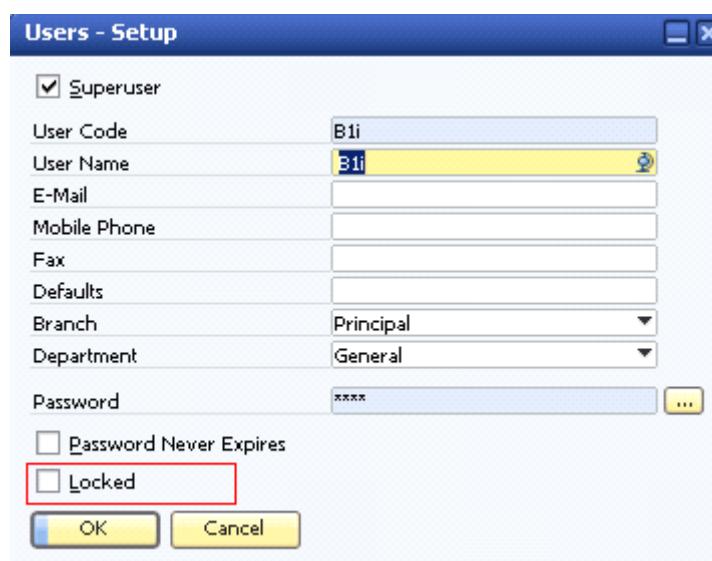
- a. In the SAP Business One *Main Menu*, choose *Administration* → *Setup* → *General* → *Users*.
- b. In the *Users - Setup* window, click  in the toolbar and specify the required user-specific data.



- c. Choose the *Update* button and then the *OK* button.
- To remove a user in SAP Business One, proceed as follows:
  - a. In the SAP Business One *Main Menu*, choose *Administration* → *Setup* → *General* → *Users*.
  - b. In the *Users - Setup* window, in the *User Code* field, enter an asterisk (\*) and in the *Choose From List* window, select the user you want to delete.
  - c. Right-click anywhere in the window and choose *Remove*.



- d. Choose the *OK* button.
- To lock or unlock a user in SAP Business One, proceed as follows:
  - a. In the SAP Business One *Main Menu*, choose *Administration* → *Setup* → *General* → *Users*.
  - b. In the *Users - Setup* window, in the *User Code* field, select the user you want to lock or unlock.



- c. In the *Users - Setup* window, do the following:

- To lock a user, select the *Locked* checkbox.
- To unlock a user, deselect the *Locked* checkbox.

## 7.2.2. User Authentication

As standard practice, SAP Business One and the database authenticate users by their user accounts and passwords.

You can change your password at any time. In addition, the application checks the password validity of each logon attempt according to the selected security level.

If you are required to change your password, the application displays the *Password Expiration* window. You must change the password to log on.

The new password must comply with the settings of the selected security level, containing at least:

- x characters
- x lowercase
- x uppercase
- x digits
- x non-alphanumeric

An example password is displayed.

The application saves passwords in the database in encrypted form. The last  $n$  passwords are also encrypted. When appraising a new password, the application first encrypts it and then compares it with the saved ones.

The password policy defines global guidelines and rules for password settings, such as the following:

- Time interval between password changes
- Required and forbidden letters and characters
- Minimum required number of characters
- Number of logon attempts before the system locks the user account

The password policy improves the security of SAP Business One and enables administrators to apply the required security level for their organization.



### Note

Only a superuser can change a security level.

SAP Business One supports the following approaches to raising the security level of user authentication:

- Increase the complexity of the password.
- Increase the frequency of password changes.

For information about how to configure it in SAP Business One, see the online help document: *Password Administration*. You can find the online help documentation in SAP Channel Partner Portal at <http://channel.sap.com/sbo/documentation>.

Customers can find the document in SAP Business One Customer Portal at <http://service.sap.com/smb/sbocustomer/documentation>.

## 7.3. Database Authentication

The default user name of the database administrator is **sa** and it has full authorization. Therefore, you must assign a strong **sa** password, even on servers that are configured to require Microsoft Windows Authentication. This ensures that a blank or weak **sa** password is not exposed.

A strong password is the first step to securing your system. A password that can be easily guessed or compromised using a simple dictionary attack makes your system vulnerable. A strong password has the following characteristics:

- Contains alphabetic, numeric, and special characters
- Is at least seven characters in length
- Is NOT a common word or name
- Does NOT contain a name or user name
- Is significantly different from previous passwords

To set the password for the **sa** logon, proceed as follows:

1. Log on to the server as a Domain or local Windows Administrator.
2. From Microsoft Windows, choose *Start* → *Programs* → *Microsoft SQL Server 2005* or *Microsoft SQL Server 2008* → *SQL Server Management Studio*. Upon first logon, in the *Connect to Server* window, enter the server name (if required) and under *Authentication*, select *Windows Authentication*.



### Note

SAP recommends that you create another super user account with the same authorization as the **sa** user.

3. In the *Object Explorer* window, under the SQL Server instance, expand *Security* → *Logins*. Right-click **sa** and choose the *Properties* menu.
4. On the *General* page, enter and confirm the new password for the **sa** login.
5. Choose the *OK* button and close the *SQL Server Management Studio* window.



### CAUTION

To prevent dictionary attacks, you should create a substitute user for **sa** that can take daily responsibility for the SQL Server database assessment.

For more information, see [Changing the sa Login Password and Creating an Alternative User](#).

To create a superuser account for maintaining administration tasks for SAP Business One, proceed as follows:

1. From Microsoft Windows, choose *Start* → *Programs* → *Microsoft SQL Server 2005* or *Microsoft SQL Server 2008* → *SQL Server Management Studio*.
2. In the *SQL Server Management Studio Object Explorer* window, choose *Security* → *Logins*.
3. Right-click the *Logins* folder and choose *New Login*. The *Login - New* window appears.

4. On the *General* tab, select *SQL Server authentication* and enter a strong password.
5. On the *Server Roles* tab, select *dbcreator* and *securityadmin*.
6. On the *User Mapping* tab, select the *db\_owner* role for all SAP Business One databases (SBO-COMMON and all companies), and select the *public* role for the *<msdb>* database.

Choose the *OK* button.

## 7.4. Data Integrity

To improve data integrity in the database and ensure that no changes to the database are made during the running of the application, a setting is defined to allow specified SAP Business One users to run read-only queries on the company database through SAP Business One's query editors. Queries can be restricted to read-only statements. This means user permissions are read only for SQL executions, and querying the database would be done using a read-only user.

### 7.4.1. Setting Read-Only User Permissions

To prevent any user with access to the query generator from performing any commands on the SAP Business One company database, you can limit Query Generator to read-only queries. You can use the read-only db user feature to enable it.



#### Note

Adding read-only users is irreversible. Changing the type of such a user in the database leads to errors in SAP Business One.

To create or maintain read-only user permissions in SAP Business One, proceed as follows:

1. To create a new user in the SQL Server database, choose *Start* → *All Programs* → *Microsoft SQL Server 2005* or *Microsoft SQL Server 2008*.  
In the *Connect to* window, specify values in the *Server name* and *Authentication* fields, and then choose the *Connect* button.
2. In *Microsoft SQL Server Management Studio*, choose *Security* → *Login*, right-click the *Login* folder and choose *New Login*.
3. In the *Login-New* window, on the *General* tab, specify a name for the read-only user you want for the SQL Server database.
4. On the *User Mapping* tab, do the following:
  - a. In the *Users mapped to this login table* area, select the *Map* checkbox for SBO-COMMON and the company databases.
  - b. In the *Database role membership for: SBO-COMMON* table, select the following checkboxes:
    - *db\_datareader*
    - *db\_denydatawriter*



#### CAUTION

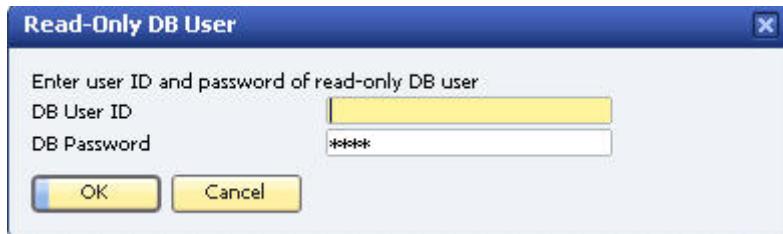
If you select the *db\_writer* checkbox, you then cannot set a read-only user in SAP Business One.

- c. In the *Users mapped to this login table* area, select the company database which you want to assign the read-only user and perform step b again.

**Note**

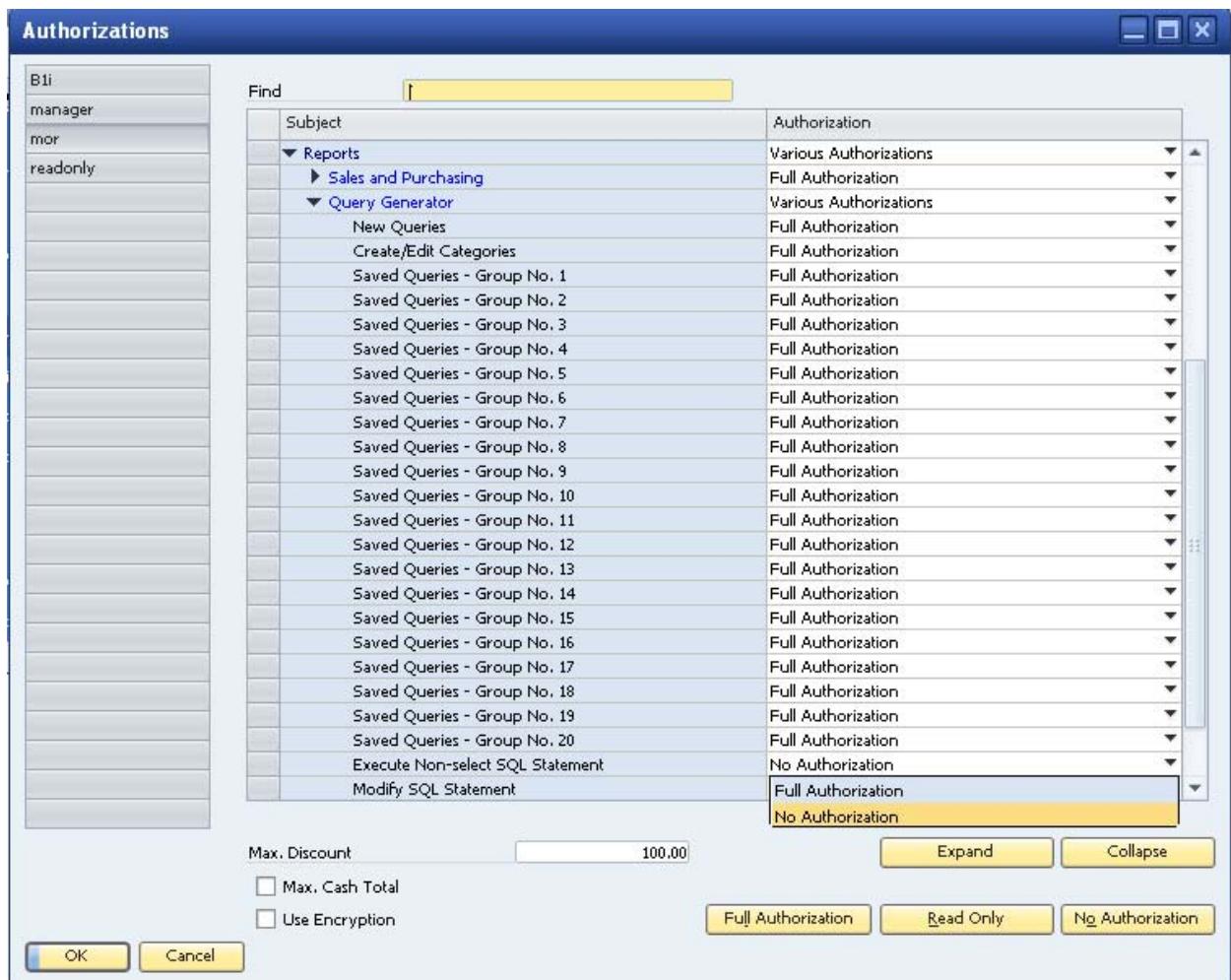
The read-only user can only be applied to new companies which are created later on.

5. Log on to SAP Business One with a super user.
6. To access the *Read-Only DB User* window, in the SAP Business One *Main Menu*, choose *Administration* → *Setup* → *General* → *Security* → *Read-Only DB User*.
7. In the *Site User Logon* window, specify the site user password and choose the *OK* button.
8. In the *Read-Only DB User* window, specify values in the *DB User ID* and *DB Password* fields.



9. Choose the *Update* button, and then choose the *OK* button.
10. To set the permission, choose *Administration* → *System Initialization* → *Authorizations* → *General Authorizations*.
11. In the *Authorizations* window, do the following:
  - a. Choose *Reports* → *Query Generator* → *Execute Non-select SQL Statement*.

b. In the *Authorization* dropdown list, choose *No Authorization* for the read-only user.



## 7.4.2. Registering New Databases in SAP Business One

SAP Business One now allows registering new databases only from the license server.



The license server should not be accessible physically to any users except the people who own the site user password.

Keep the license server machine in a place not easily accessed by anyone.

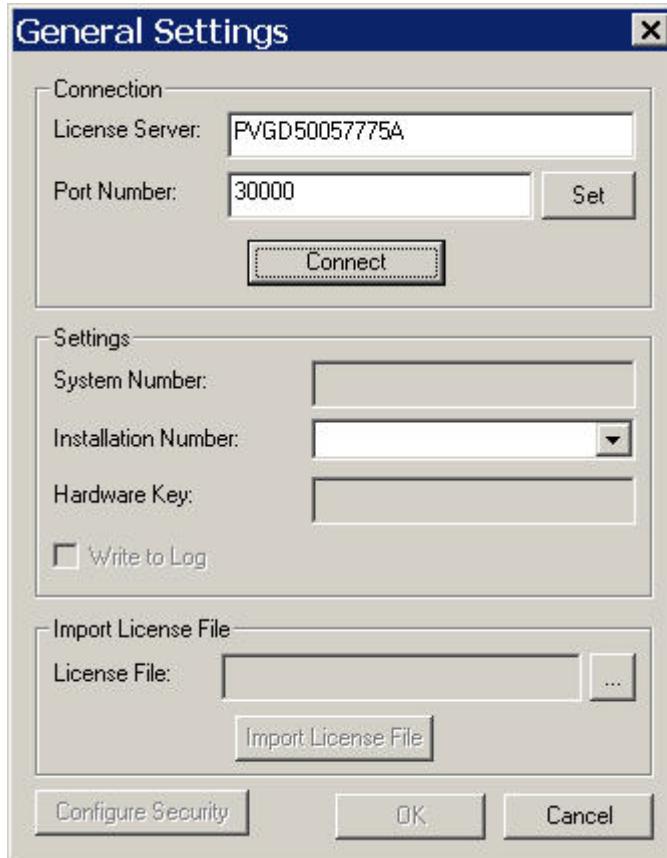
To register new databases, proceed as follows:

1. To open *SAP Business One Service Manager*, choose *Start* → *All Programs* → *SAP Business One* → *Server Tools* → *Service Manager*.
2. In the *SAP Business One Service Manager* window, in the *Service* dropdown list, select *License Manager*.

Choose the *Settings* button.



3. In the *General Settings* window, choose the *Configure Security* button.



4. In the *Validate Site User Password* window, specify the site user password. Choose the *OK* button.



5. In the *Connection Settings* window, specify the following fields:

- *DB Type*: From the dropdown list, select your database server type.
- *DB Server*: Specify the database server name or the IP address of the database server.



#### CAUTION

Make sure that the server name does not contain any of the following special characters:

- “&”
- “<”
- “>”
- “”
- “”

Make sure to align the computer name with the name format of your license server. To check or correct your computer name, proceed as follows:

- i. Choose *Start → Control Panel → System*.
- ii. In the *System Properties* window, select the *Computer Name* tab.
- iii. In the *Computer description* field, check the computer name.
- iv. To correct the computer name, choose the *Change* button.
- v. In the *Computer Name/Domain Changes* window, enter a new name for the machine and choose the *OK* button..

- *DB Username*: Specify the user ID of the database.
- *DB Password*: Specify the password of the database.

Choose the *OK* button.



#### CAUTION

We recommend that you **not** select the *Use Trusted Connection* checkbox to use the Microsoft NT authentication, because it is much weaker than SQL Server authentication mode.

Be aware of the following limitations of Windows NT authentication:

- Windows NT-trusted in SAP Business One is a server level configuration: all users on the same SAP Business One server can use NT-trusted to connect to SQL Server if the checkbox is selected.
- You have to maintain each machine to be added to the domain for NT-trusted authentication mode, while SQL Server database authentication shares the database user (such as **sa**) on the same SAP Business One server.

For more information about configuring trusted connections, see [Troubleshooting Security](#).

## 7.5. SAP Business One Authentication and Authorization

SAP Business One has introduced a mechanism to protect the database from easy changes through direct access.

The advantages of restricting access to the SAP Business One database are:

- End users are not exposed to database credentials and so cannot change the databases directly, which protects the databases from being changed or attacked.
- Database credentials are stored in the license server and end users can access the database only after the application performs a successful site user authentication through the license server.

### 7.5.1. Restricting Access to the SAP Business One Database

SAP Business One has a function that hides database access credentials from SAP Business One end users.

In SAP Business One 8.8, the license server is the central repository for credentials information, including the database user ID and password (one for all SAP Business One users).

The database credentials are stored safely in the license server, with additional encryption.

The workflow procedure is as follows:

1. Database consumers such as SAP Business One client, DI, and Services have to provide the SAP Business One credentials (SAP Business One user ID and password) to authenticate against the license server.
2. Following successful authentication, the license server supplies its credentials and SAP Business One uses them to connect.

## 7.6. Network Security

We strongly recommend using SAP Business One in trusted environments only (corporate LAN with firewall protection).

### 7.6.1. SSL Encryption

To secure the TCP/IP communication channel between the database client and the database server, you can implement SSL encryption. The advantage of applying security communication is that it prevents SAP Business One application data, including the database credentials, from being exposed.

SAP Business One fully supports SQL SSL. We recommend that you implement SSL in SAP Business One without making configuration changes in SAP Business One. For more information, see <http://support.microsoft.com/kb/316898> or contact your IT administrator.



#### Note

Using SSL encryption may degrade network performance. The SSL encryption solution for Microsoft SQL Server requires a certificate, which is time limited and needs yearly renewal.

For information about Microsoft SSL encryption guidelines, see [www.msdn.microsoft.com](http://www.msdn.microsoft.com) and search for the following topics:

- Net-Library Encryption
- Client Net-Libraries

## 7.6.2. Communication Channels

TCP provides the communication channels between the following:..

- SAP Business One server ⇔ SAP Business One clients
- SAP Business One server ⇔ SAP Business One license server
- SAP Business One server ⇔ the agent of remote support platform for SAP Business One

The default communication port is 1143 .

The default port of the SAP Business One license server is 30000 for license communication and 30001 for the license naming service.

## 7.7. Application Security

SAP Business One provides features to ensure that unauthorized access to the application does not occur.

### 7.7.1. Password Encryption

In SAP Business One, a strong algorithm is used for data encryption and decryption. The site user ID and password are encrypted and saved on the license server.



#### Note

You should set a site user password which is at least as strong as that defined in company password policy, and change it frequently.

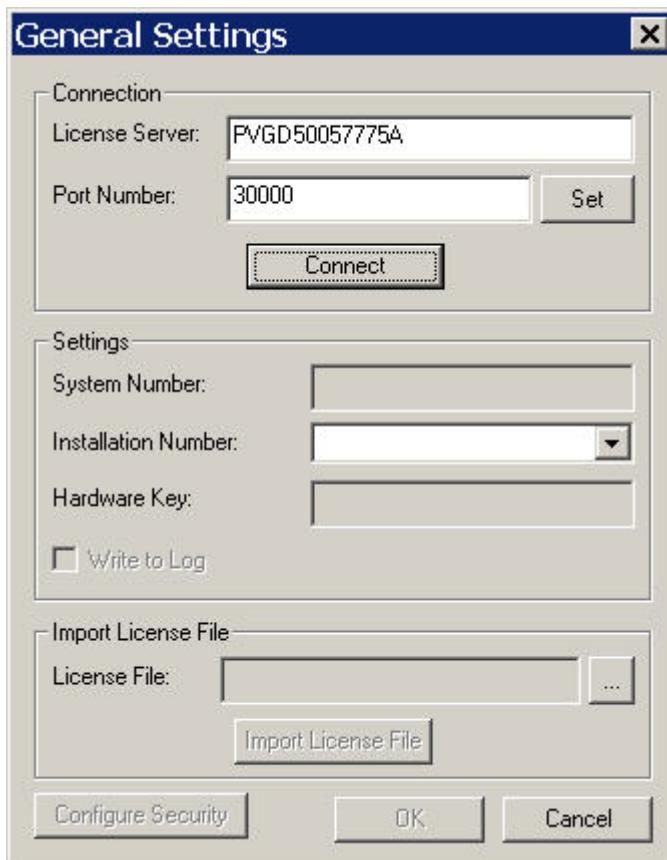
The site user password can be changed through a *License Manager* configuration, providing a previous password or authenticating the database credentials to prove that whoever is changing the site password is at least at a database administration level.

To change the site user password, proceed as follows:

1. To open *SAP Business One Service Manager*, choose *Start* → *All Programs* → *SAP Business One* → *Server Tools* → *Service Manager*.
2. In the *SAP Business One Service Manager* window, in the *Service* dropdown list, select *License Manager*. Choose the *Settings* button.



3. In the *General Settings* window, choose the *Configure Security* button.



4. In the *Validate Site User Password* window, choose the *Change Site Password* button.



5. In the *Change Site Password* window, specify the following fields:

- Current Site Password*
- Enter New Site Password*
- Confirm New Site Password*

Choose the *OK* button.



6. In the displayed dialog window, choose the *OK* button.

### 7.7.2. B1\_SHR Folder Permissions

The SAP Business One server installation process creates the **B1\_SHR** folder, which contains the SAP Business One client setup files.

Operating System	User	SBO_SHR Permission
Microsoft Windows 2003 Server, Microsoft Windows 2003 R2,  Microsoft Windows 2003 Server Small Business,  Microsoft Windows XP and Microsoft Windows Vista	Power User	Modify and Write
	User	Read and execute List folder contents Read

### 7.7.3. Query Generation and the Query Wizard

The query wizard tool is designated for *Select* sentences only and must not be used for any kind of update operation. In SAP Business One, you can use the read-only user configuration to serve the purpose.

The query generator can run customized queries on the SAP Business One database. To protect your data, we recommend that you make sure users have the appropriate permissions.

If you have to restrict a user from updating the database, use the feature introduced in the section [Setting Read-Only User Permission](#). However, the data results returned by the query generator are not filtered according to the user's authorization.



#### Note

The highest level of security is a *No Authorization* setting for the query generator and the query wizard, which is the default setting.

### 7.7.4. Add-On Access Protection

When you install an add-on, SAP Business One creates a unique digital signature using the MD5 technique (message-digest algorithm). SAP Business One identifies the add-on by validating its digital signature.

## 7.8. Security Solutions for Microsoft SQL Server and Database Tips

We recommend that you take the following actions to ensure the security of your Microsoft SQL Server.

### 7.8.1. Upgrading the SQL Server

We recommend upgrading the SQL server to the latest service pack. Furthermore, administrators should regularly consult the SQL Server Security Center at [www.microsoft.com](http://www.microsoft.com).

### 7.8.2. Steps to Securing Microsoft SQL Server

Because SAP Business One is a two-tier application, much of the application security depends on the database server security and on the authorization mechanism. Be aware that users can access the database using tools other than SAP Business One and, therefore, can modify the logon information. To secure your database, we recommend adhering to Microsoft security guidelines. For more information, see the Microsoft documents at [www.microsoft.com](http://www.microsoft.com).

### 7.8.3. Revoking Guest Access to the msdb Database

1. To open SQL Server Management Studio, choose *Start* → *All Programs* → *Microsoft SQL Server 2005* or *Microsoft SQL Server 2008*.
2. In the *Connect to* window, specify values in the *Server name* and *Authentication* fields, and choose the *Connect* button.
3. In the *SQL Server Management Studio Object Explorer* window, choose *Databases* → *System Databases* → *msdb* → *Security* → *Users*.
4. In the right pane, right-click the *Guest* user and choose *Delete*.

## 7.9. Data Storage Security

The security of the data saved in SAP Business One is generally the responsibility of the database provider and your database administrator. As with your application infrastructure, most of the measures that you should take depend on your strategy and priorities.

There are a few general measures, as well as database-specific measures, that you can take to increase the protection of your data. Details are provided in the following sections:

- Exporting the Configuration File
- Importing the Configuration File
- Configuration Logs and User Settings

### 7.9.1. Exporting Configuration Files

To secure your data, we recommend that you export your security configuration file right after you finish installing the license server and the SAP Business One server.

The configuration file contains the following important information:

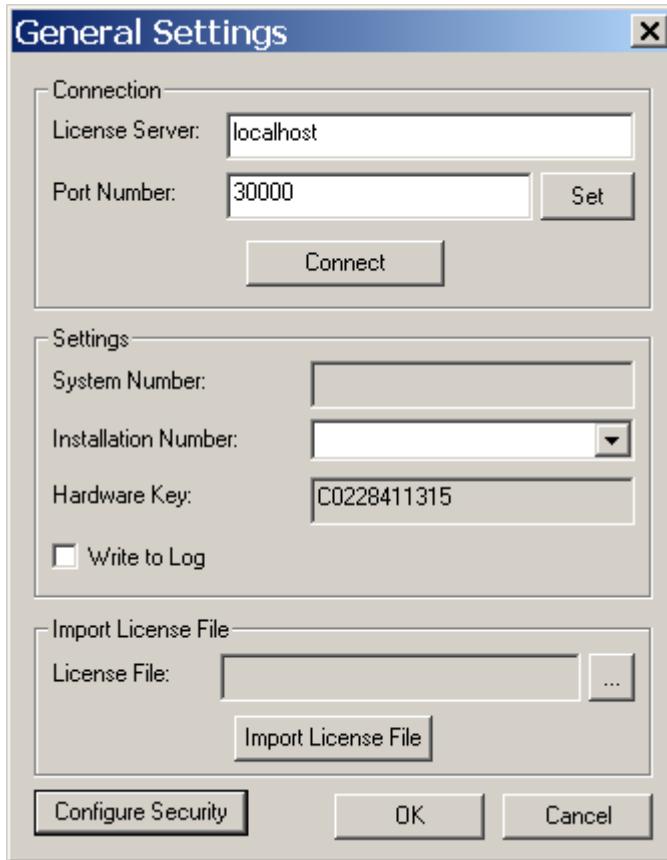
- Site user password
- Database information
- Read-only database user information
- Algorithm information

To export the security configuration file, proceed as follows:

1. To open *SAP Business One Service Manager*, choose *Start* → *All Programs* → *SAP Business One* → *Server Tools* → *Service Manager*.
2. In the *SAP Business One Service Manager* window, in the *Service* dropdown list, select *License Manager* and choose the *Settings* button.



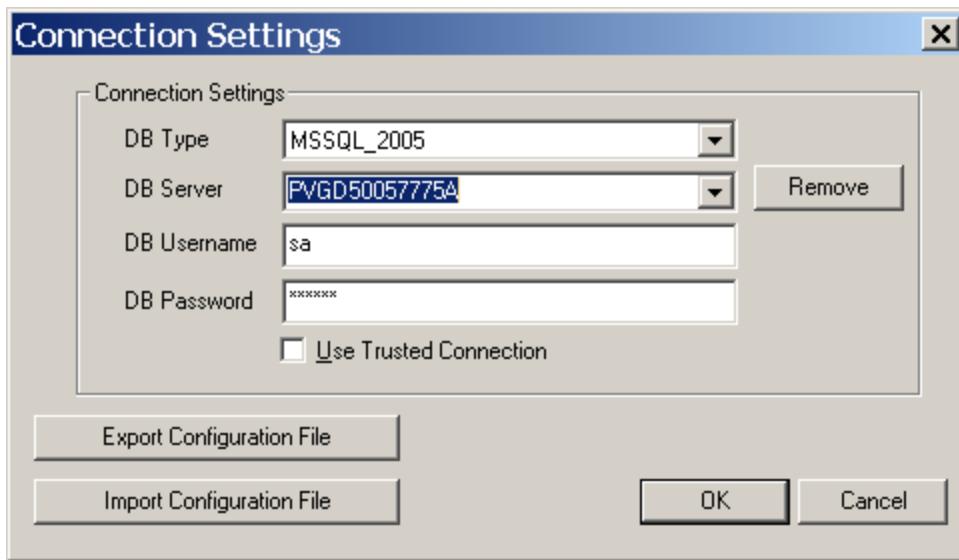
3. In the *General Settings* window, choose the *Configure Security* button.



4. In the *Validate Site User Password* window, specify the current site user password and choose the *OK* button.



5. In the *Connection Settings* window, choose the *Export Configuration File* button.



6. In the *Browse* window, do the following:

- Select a destination folder for saving the file.
- Specify a file name.

Choose the *OK* button.

7. In the message dialog box, choose the *OK* button.



The site user password is required if you later import the security configuration file to restore the configured security settings. Thus, **keep a record** of the site user password when you are exporting the configuration file, especially if you want to change the site user password after the configuration file is exported.

### 7.9.2. Importing Configuration Files

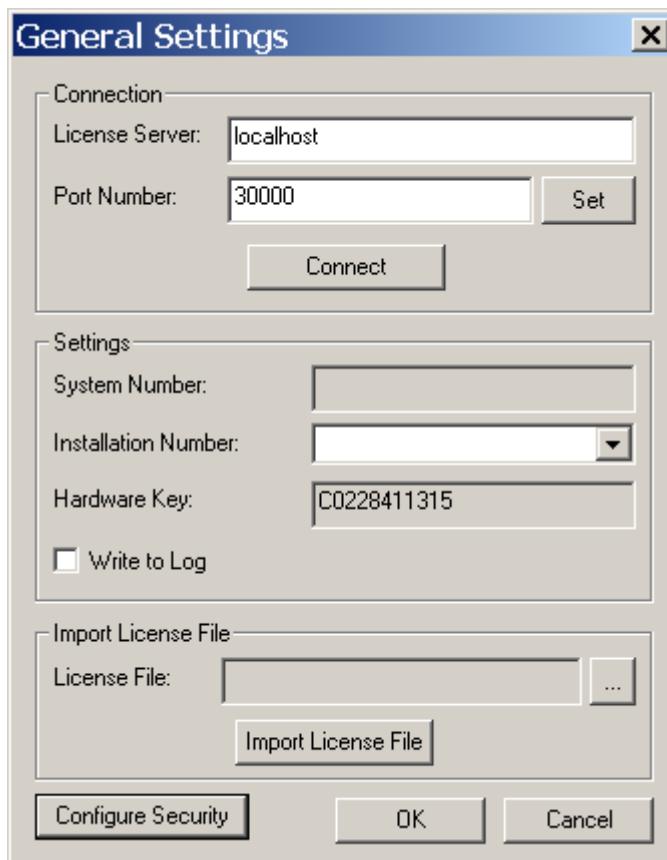
If your license server crashes or is corrupted, you must set up a new license server. After the new license server is started up, to restore all the security settings you had before, you can import the security configuration file.

1. To open *SAP Business One Service Manager*, choose *Start* → *All Programs* → *SAP Business One* → *Server Tools* → *Service Manager*.
2. In the *SAP Business One Service Manager* window, in the *Service* dropdown list, select *License Manager*.

Choose the *Settings* button.



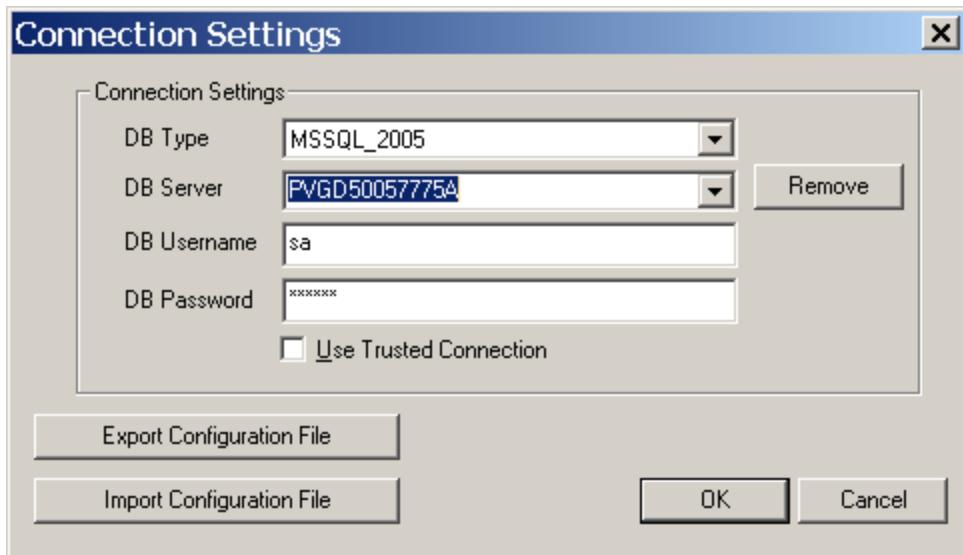
3. In the *General Settings* window, choose the *Configure Security* button.



4. In the *Validate Site User Password* window, specify the current site user password and choose the *OK* button.



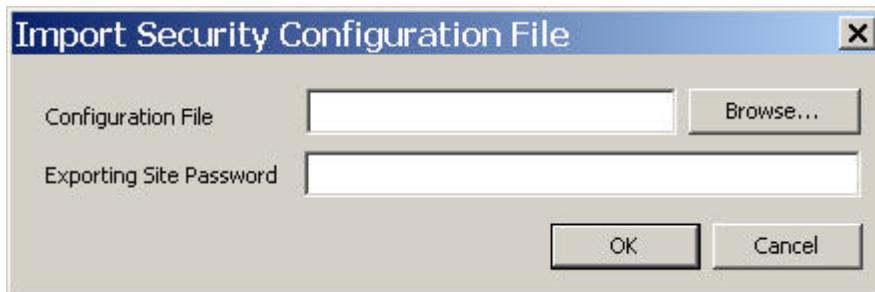
5. In the *Connection Settings* window, choose the *Import Configuration File* button.



6. In the *Import Security Configuration File* window, do the following:

- Choose the *Browse* button to navigate to your local file directory where the file is saved.
- In the *Exporting Site Password* field, specify the site user password you had when the configuration file was exported.

Choose the *OK* button.



### 7.9.3. Configuration Logs and User Settings

In SAP Business One, configuration changes are logged in files formatted as: `xxx.pidxxxxx` (xxx after pid can be the date, such as 20090325, so that you can find the latest log file) under `%UserProfile%\Local Settings\Application Data\SAP\SAP Business One\Log\BusinessOne`.

The configuration changes include the following:

- Adding/Removing users
- Changing a user to a superuser / non superuser
- Changing user passwords
- Changing user permissions
- Changing password policy
- Changing company details



#### Note

To find the logs containing changes to company details, do the following:

- i. In the SAP Business One *Main Menu*, choose *Administration* → *System Initialization* → *Company Details*.
- ii. In the menu bar, choose *Tools* → *Change Logs*.

However, the following configurations cannot be logged:

- Changing data ownership authorizations
- Changing data ownership exceptions
- Changing license settings
- Setting Read-Only DB users

If you fail to log on to SAP Business One, the log is recorded in the Event Viewer.

As of SAP Business One 2007, any specific user settings are saved in a file named: `b1-current-user.xml` under `C:\Documents and Settings\XXX(user id)\Local Settings\Application Data\SAP\SAP Business One`. In this situation, if a user changes his settings in SAP Business One, the changes are saved in this folder and do not affect other users' settings.

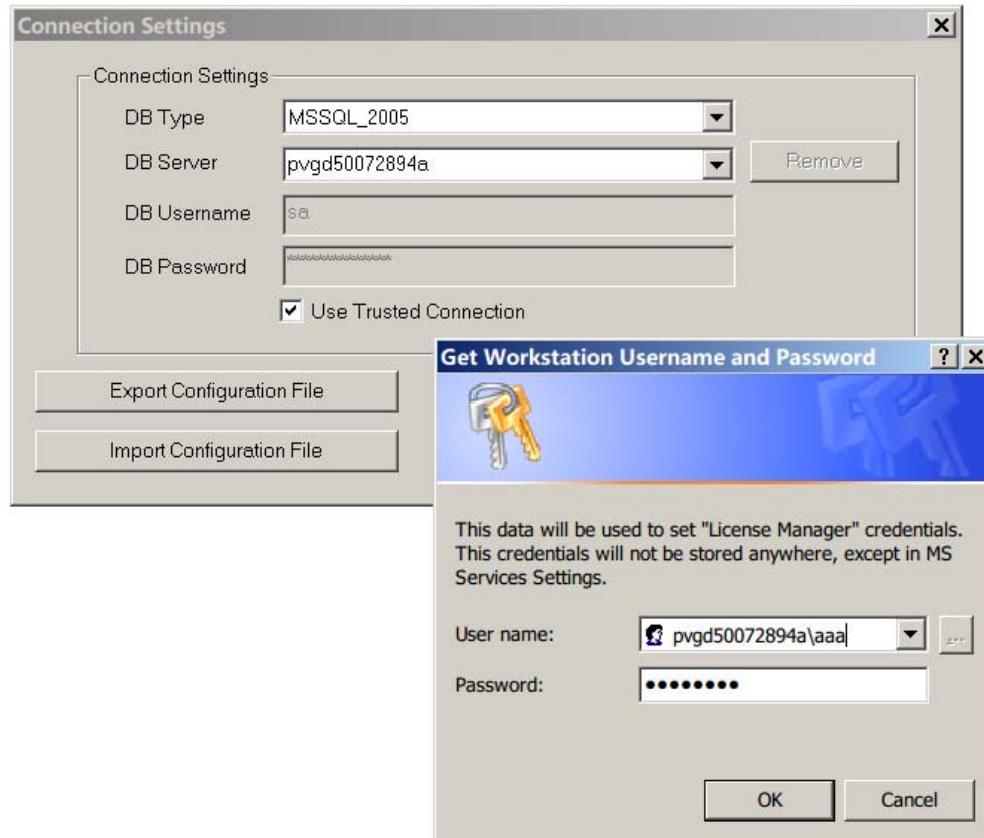
## 7.10. Troubleshooting Security

- The NT-trusted support is only for SAP Business One backward compatibility.

To configure NT-trusted, you have to provide Windows credentials, as shown in the screen below.

Make sure of the following prerequisites:

- The Windows user has permission to start the SAP Business One license service.
- The Windows user has been registered in SQL Server.



Make sure that your Microsoft Windows account has rights to log on to the license server, because after the NT-trusted policy is configured, the license server service runs with this NT-trusted account.

To check the configuration of your Microsoft Windows account on the machine where your license server is running, proceed as follows :

- Choose *Start* → *Control Panel* → *Administrative Tools* → *Local Security Policy*.
- In the *Local Security Policy* window, choose *Local Policies* → *User Rights Assignment*.
- In the *User Rights Assignment* window, select the *Log on as a service* item and double-click the item.
- In the *Log on as a service* *Properties* window, choose the *Add User or Group* button.
- Check if your Microsoft Windows account is in the *Enter the object names to select (examples):* field, and if not, add it and try again.

- To check or correct your computer name, which is necessary to install Microsoft SQL Server 2005 or 2008, proceed as follows:
  - a. Choose *Start* → *Control Panel* → *System*.
  - b. In the *System Properties* window, select the *Computer Name* tab.
  - c. In the *Computer description* field, check the computer name.
  - d. To correct the computer name, choose the *Change* button.
  - e. In the *Computer Name/Domain Changes* window, specify a new name for the machine and choose the *OK* button.

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