

**PUBLIC**

**Installation Guide**



# **Developer Workplace for SAP NetWeaver 2004s SR1**

## **Target Audience**

- System administrators
- Technology consultants

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## Typographic Conventions

Example	Description
<>	Angle brackets indicate that you replace these words or characters with appropriate entries to make entries in the system, for example, "Enter your <b>&lt;User Name&gt;</b> ".
®	Arrows separating the parts of a navigation path, for example, menu options
<b>Example</b>	Emphasized words or expressions
<b>Example</b>	Words or characters that you enter in the system exactly as they appear in the documentation
<u>Example</u>	Textual cross-references to a URL, for example, <a href="http://www.sap.com">www.sap.com</a>
/example	Shortcuts added to the URL of a homepage to enable quick access to specific content on the Web
<a href="#">123456</a>	Hyperlink to an SAP Note, for example, SAP Note <a href="#">123456</a>
<i>Example</i>	<ul style="list-style-type: none"> <li>Words or characters quoted from the screen. These include field labels, screen titles, pushbutton labels, menu names, and menu options.</li> <li>Cross-references to other documentation or published works</li> </ul>
<b>Example</b>	<ul style="list-style-type: none"> <li>Output on the screen following a user action, for example, messages</li> <li>Source code or syntax quoted directly from a program</li> <li>File and directory names and their paths, names of variables and parameters, and names of installation, upgrade, and database tools</li> </ul>
<b>EXAMPLE</b>	Technical names of system objects. These include report names, program names, transaction codes, database table names, and key concepts of a programming language when they are surrounded by body text, for example, <b>SELECT</b> and <b>INCLUDE</b>
<b>EXAMPLE</b>	Keys on the keyboard

# Document History



## Caution

Before you start the implementation, make sure you have the latest version of this document.

You can find the latest version in SAP Service Marketplace at the following internet address:

[service.sap.com/instguides](http://service.sap.com/instguides).

The following table provides an overview on the most important document changes.

Version	Date	Description
1.0	04/10/2006	Initial Version

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# 1 Planning

## Check Documentation

You must read **SAP Note 924983** before you start the installation. This SAP Note contains the most recent information on the installation, as well as corrections to the installation documentation.

Make sure that you have the up-to-date version of the SAP Note which you can find on the SAP Service Marketplace at [service.sap.com/notes](http://service.sap.com/notes).

## 1.1 Software Components Overview

The following table defines the installation components. Each table cell corresponds to one installation component.

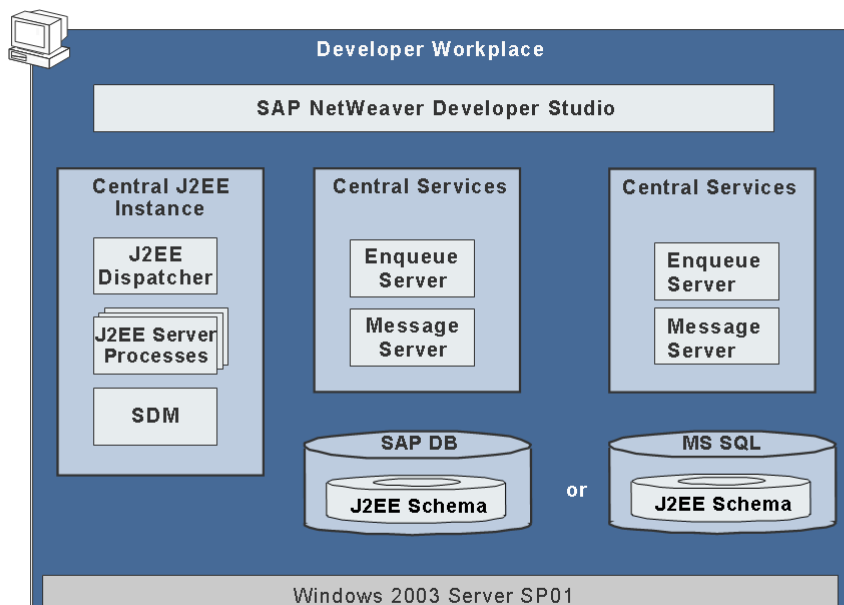
Component	Description
SAP NetWeaver Developer Studio	The SAP NetWeaver Developer Studio introduces SAP's own environment for developing Java-based, multiple-layered business applications. The new development environment is based on Eclipse, an open source product, whose open plug-in architecture provides a suitable platform for incorporating specific functions. For more information, see the SAP Library at <a href="http://help.sap.com/NW2004s">help.sap.com/NW2004s</a> <sup>®</sup> <i>SAP NetWeaver by Key Capability</i> <sup>®</sup> <i>Application Platform by Key Capability</i> <sup>®</sup> <i>Java Technology</i> <sup>®</sup> <i>Java Development Manual</i> <sup>®</sup> <i>Getting Involved</i> <sup>®</sup> <i>Concepts of the Developer Studio</i> .
MaxDB	DB software, DB instance, J2EE schema
MS SQL Server	DB software needs to be installed before
SAP J2EE Central Instance	J2EE dispatcher, 1 J2EE server process, SDM
SAP J2EE Central Services	Message Server, Enqueue Server

There are two scenario variants you can choose from for SAP NetWeaver Developer Workplace.

Depending on which scenario you choose, the following components will be installed:

- **Developing Composite Applications**
  - Composite Applications Framework (CAF)
  - Enterprise Portal (EP)
- **Developing Web Dynpro Applications**
  - System Landscape Directory (SLD)
  - Adobe Document Services (ADS) (optional, required for Adobe forms)
  - Enterprise Portal (EP)

**Figure 1:** The graphic below provides an overview of the relevant components.



## 1.2 Installation Considerations

*SAP Developer Workplace for SAP NetWeaver 2004s Support Release* is to be installed on a single host running on a Windows 2003 Advanced Server or Windows XP Professional. All components will be installed within one single installation routine.

The installation provides the new *Default Mode* installation. This means that you will see all default values in the first screens. You can change the default values if required.

## 1.3 Developer Workplace Installation - Step by Step

This section provides an overview of the complete installation procedure.

1. *Checking hardware and software requirements* [page [5](#)].
2. *Preparing the required DVDs* [page [6](#)].
3. *Installing the SQL Server database software* [page [15](#)].(optional)
4. *Installing the Developer Workplace* [page [10](#)].
5. *Installing the Developer Workplace with SAPsetup (IDE only)* [page [11](#)] (optional).
6. *Starting and stopping the SAP system* [page [13](#)].
7. *Running deployment tests* [page [13](#)].



8. *Starting the Visual Administrator* [page [14](#)].
9. *Starting and stopping the SAP Software Delivery Manager (SDM)* [page [14](#)].
10. *Installing a permanent SAP license* [page [14](#)].

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## 2 Preparation

You have to complete the following preparations:

1. *Check the hardware and software requirements* [page 5].
2. *Prepare the installation DVDs* [page 6].
3. *Installing the Java Development Kit* [page 7].

### 2.1 Checking Hardware and Software Requirements

#### Minimum Hardware Requirements

- **RAM:** 1 GB required, 2 GB recommended
- **CPU:** 1,5 GHz required, 2 GHz recommended
- **Disk Space:**
  - For **MaxDB:** 8.6 GB (3,1 GB temporary)
    - ◆ 3,1 GB (temporary): extracted <installation DVD>
    - ◆ 5.59 GB: Installed SAP NetWeaver Developer Workplace:
      - ◆ SAP J2EE Engine: 3 GB
      - ◆ MaxDB: 2 GB
      - ◆ SAP NetWeaver Developer Studio: 500 MB



#### Note


- ◆ You can distribute the SAP J2EE engine, the MaxDB software and the SAP NetWeaver Developer Studio on different drives.
  - ◆ The MaxDB software is installed automatically during the installation of SAP Developer Workplace.
- 
- For **MS SQL Server:** 9,1 GB (3,1 GB temporary)
    - ◆ 3,1 GB (temporary): extracted <installation DVD>
    - ◆ 6 GB: Installed SAP NetWeaver Developer Workplace:
      - ◆ SAP J2EE Engine: 3 GB
      - ◆ MS SQL Server: 2.5 GB
      - ◆ MS SQL Software 150 MB
      - ◆ SAP NetWeaver Developer Studio: 500 MB

**Caution**

The database software for MS SQL Server has to be installed **before** you start the installation of the SAP NetWeaver Developer Workplace.

For more information on how to install the MS SQL Server software, see *Installing the SQL Server Database Software* [page 15].

**Software Requirements**

Requirement	How to Check
<b>Windows 2003 SP01</b> English (International) version with NTFS file system; FAT partition is not supported. For this installation, also <i>Windows XP Professional</i> can be used.	<b>Installed SP?</b> <ol style="list-style-type: none"> <li>1. Choose <i>Start</i> ® <i>Run</i> and execute the command <b>winver</b>.</li> <li>2. Check your operating system in the appearing About Windows box if the software requirements are fulfilled. If not, use the links at the left, to install the missing Support Package.</li> </ol> <b>FAT or NTFS File System?</b> <ol style="list-style-type: none"> <li>1. Open the <i>Windows Explorer</i>.</li> <li>2. Select the drive C: \.</li> <li>3. Choose <i>File</i> ® <i>Properties</i>.</li> <li>4. Switch to the <i>General</i> tab to see the type of file system that is in use.</li> <li>5. Check each drive on which you intend to perform the installation.</li> </ol> <b>Installed Software Components?</b> Choose <i>Start</i> ® <i>Settings</i> ® <i>Control Panel</i> ® <i>Add/Remove Programs</i> . The <i>Add/Remove Programs</i> box appears, displaying the installed components.
<b>SUN J2SE SDK version 1.4.2_08</b> Even if you have already another SDK version on your host, you can install the required 1.4.2_08 version additionally.	—
 <b>Caution</b> <b>Togethersoft Users only</b> If (and only if) you have installed Togethersoft you need to read <b>SAP Note 564195</b> because Togethersoft modifies the SDK installation.	
<b>Internet Explorer 5.5 or higher</b>	In your Internet Explorer, choose <i>Help</i> ® <i>About Internet Explorer</i> .

**2.2 Preparing the Installation DVDs**

Make sure that you have the following installation DVDs available:

- *SAP NetWeaver 2004s SR1 Developer Workplace DVD*
- *SAP NetWeaver 2004s <your Database> RDBMS DVD*

#### ■ SAP NetWeaver 2004s SR1 Kernel DVD



##### Note

Use one of the following methods to make DVDs available in parallel:

##### ■ Before the installation:

- Have sufficient DVD drives
- Copy DVDs manually to local hard disks

##### ■ During the installation:

Use the SAPinst DVD / CD Browser dialog. You can check the entered location and then copy the entire DVD to the path you entered in column *Copy Package to*.

#### Downloading the DVD from SAP Service Marketplace

You can also download and prepare the installation DVD as follows:

Download the installation DVD from SAP Service Marketplace on your local disk into an temporary folder (devwp, for example):

1. Go to [service.sap.com/swdc](http://service.sap.com/swdc)® Download® Support Packages and Patches® Entry by Application Group.
2. In the right frame choose SAP NetWeaver® SAP NetWeaver® SAP NetWeaver 2004s® Entry by Component® Developer Workplace.

## 2.3 Installing the Java Development Kit

You need to prepare the system for the J2EE Engine by installing the Java Development Kit (JDK).

As of SAP NetWeaver 2004s you must install the J2EE Engine with strong encryption.

The J2EE Engine requires a Java Development Kit (Java™ 2 SDK, Standard Edition = JDK) on every host where the J2EE Engine is to be installed.

The JDK includes the Java Runtime Environment (JRE), which is required both for SAPinst and the SAPinst GUI.



##### Note

If required, you can perform a **remote** installation using a standalone SAPinst GUI on a separate Windows or UNIX host. This lets you perform the installation on a remote host, controlling it with the SAPinst GUI from a local host.

If you want to perform a remote installation, see *Starting SAPinst on the Remote Host* [page 35]. In this case, you need at least a JRE on the local host to start the SAPinst GUI there.

#### Procedure

1. Check the JDK versions that are released for SAP systems in the Product Availability Matrix (PAM):
  - a) Go to [service.sap.com/pam](http://service.sap.com/pam).
  - b) On the right-hand panel, choose SAP NetWeaver® SAP NetWeaver 2004s® JSE Platforms.
  - c) Choose tab strip *JSE Platforms*.

For additional information on the recommended JDK version, see **SAP Note** [709140](#).

2. Make sure a valid JDK version is installed on every host on which you want to install an SAP instance with the J2EE Engine, as follows:

- If JDK is not already installed

Since JDK is not part of the SAP shipment, you need to download and install it.

- If JDK is already installed

Check the installed version of JDK by entering the following command:

```
java -version
```



**Note**

SAPinst checks environment variable `SAPINST_JRE_HOME` for a valid Java runtime environment.

If `SAPINST_JRE_HOME` is not found, SAPinst also checks `JAVA_HOME`.

3. As of SAP NetWeaver 2004s strong encryption is mandatory for the J2EE Engine and for all usage types that are deployed on it. You need to obtain the JCE policy files beforehand so that they can be installed by SAPinst:
  - a) Download the JCE policy files for your platform at <http://java.sun.com/j2se/1.4.2/downloads>.
  - b) SAPinst installs the JCE policy files during the installation process.

## 3 Installation Procedure



### Note

Make sure that you have completed the planning and preparation activities before you start the installation.

This section provides information about the steps that you have to perform to install your SAP Developer Workplace.



### Caution


The database software for MS SQL Server has to be installed **before** you start the installation of the SAP NetWeaver Developer Workplace.

For more information on how to install the MS SQL Server software, see *Installing the SQL Server Database Software* [page 15].

### 3.1 Using SAPinst GUI

The following table shows the most important functions that are available in SAPinst GUI:

SAPinst GUI Functions

Button / Function Key / Menu Entries	Description
F1	Displays detailed information about each input parameter.
Exit	<p>Cancels the installation with the following options:</p> <ul style="list-style-type: none"> <li>■ <i>Stop</i> Stops the installation without further changing the installation files. You can restart SAPinst to continue the installation later from this point.</li> <li>■ <i>Continue</i> Continues the installation.</li> </ul>
Log off	<p>Stops the SAPinst GUI, but SAPinst and the GUI server continue running.</p> <div>  <p><b>Note</b> If for some reason you need to log off during the installation from the host where you control the installation with SAPinst GUI, the installation continues while you are logged off. You can later reconnect to the same SAPinst installation from the same or another host. For more information, see <i>Starting SAPinst GUI Separately</i> [page 35].</p> </div>
Retry	Performs the installation step again (if an error has occurred).

Button / Function Key / Menu Entries	Description
<i>Stop</i>	Stops the installation without further changing the installation files. You can continue the installation later from this point.
<i>Continue</i>	Continues with the option you have chosen before.

## 3.2 Installing Developer Workplace with SAPinst

1. Insert the *SAP NetWeaver 2004s Developer Workplace DVD* in your DVD drive or mount it locally.
2. Start SAPinst by double-clicking `sapinst.exe` from the following path:

**<DVD drive>:\IM\_WINDOWS\_I386**

SAPinst GUI starts automatically by displaying the *Welcome* screen.



Note

- Normally, SAPinst creates the installation directory `sapinst_instdir` directly below the path `<drive>:\Program Files\`.

### Exception:

If `<drive>:\Program Files\` is not accessible or write-protected, SAPinst tries to create the directory `sapinst_instdir` directly below the temporary directory (`$TEMP`).

If SAPinst does not find the temporary directory, the installation terminates with the error `FC0-00057`.

- SAPinst uses the port 21212 during the installation for communication with the SAPinst GUI. If one of these ports is already used by another service you must start SAPinst as follows:  
**sapinst SAPINST\_DIALOG\_PORT=<free\_port\_number>**

3. In the *Welcome* screen, choose *SAP NetWeaver 2004s SR1 Developer Workplace*.
4. Choose *Developer Workplace with MaxDB* or *Developer Workplace with MS SQL Server*.



Note

SAPinst creates the subdirectory `workplace` below `sapinst_instdir`.

5. Follow the instructions of the SAPinst screens.
6. Decide whether you need to change the default parameters (see also *Installation Considerations* [page 2]):
  - **No changes necessary**  
If you do not need to change any of the parameters, choose *Next*.  
In the screen *Selecting the Master Password* enter the password that should be created for the displayed accounts. The password must have at least 8 characters.
  - **Changes needed**  
If you need to change one or more parameter values, select the appropriate check box and choose *Next*.  
Depending on the selected parameters, different screens appear where you can adapt the new values.  
When you have entered all the required values, SAPinst displays a summary screen to check your values.
7. Choose *Next* to start the installation and the screen *Start Installation* is displayed.
8. Choose *Start* to start the installation.



**Result**

The installation starts automatically the J2EE Engine (SCS / Dispatcher / Server) and the SDM server (see minimized command prompt in your task bar).

The following is created:

- MaxDB with the given instance (DBSID) with directory <drive>:\sapdb\... and database schema (SAP<SAPSID>DB)
- SAP Java system directory structure:
  - <drive>:\usr\sap\<SAPSID>\JC<Instance\_Number>
  - <drive>:\usr\sap\<SAPSID>\SCS<Instance\_Number>
  - <drive>:\usr\sap\<SAPSID> \SYS
- SAP Management Console

With the SAP Management Console, you can start and stop the SAP J2EE Engine and the MaxDB.

### 3.3 Installing SAP Developer Workplace with SAPsetup (IDE only)

With this function you can install the Integrated Development Environment (IDE) only.

**Prerequisites**

You have already installed a SAP NetWeaver system with usage type Development Infrastructure (DI).

**Procedure**

1. Insert the *SAP NetWeaver 2004s Developer Workplace DVD* in your DVD drive or mount it locally.
2. Start the installation by double-clicking **SAPsetup.exe** from the following path:  
**<DVD drive>:\IDE\setup**

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## 4 Post-Installation Steps

After SAPinst has finished successfully, you need to perform the following post-installation steps and checks.

### 4.1 Starting and Stopping the SAP System

You use this procedure to check that you can start and stop the SAP system after the installation with the SAP Microsoft Management Console (SAP MMC).

With a newly installed MMC you can start or stop installed SAP instances locally on the host that you are logged on to. If the MMC is configured for central system administration, you can start or stop the entire system from a single host.



#### Note

For more information, see [help.sap.com/nw2004s](http://help.sap.com/nw2004s) <sup>®</sup> *SAP NetWeaver Library* <sup>®</sup> *SAP NetWeaver by Key Capability* <sup>®</sup> *Solution Life Cycle Management by Key Capability* <sup>®</sup> *Solution Monitoring* <sup>®</sup> *Monitoring in the CCMS* <sup>®</sup> *Microsoft Management Console: Windows*.

#### Prerequisites

- You have logged on to the SAP system host as user <sapsid>adm.
- You have checked the settings for VM parameters as described in [SAP Note 723909](#).

#### Procedure

1. Start the SAP MMC on the SAP system host by choosing *Start* <sup>®</sup> *Programs* <sup>®</sup> *SAP Management Console*.
2. Right-click the SAP system node and choose *Start* or *Stop* from the context menu.  
All instances listed under the system node, will start or stop in the correct order.
3. If the SAP system is installed on multiple hosts (distributed system), you have the following options to start or stop your system:
  - You start or stop the SAP instances using the MMC on each host.
  - You add the remote instances to the MMC configuration to start or stop all instances from a single MMC.For more information, see *Changing the Configuration of the MMC* in the SAP MMC documentation.

### 4.2 Running Deployment Tests

1. Be sure that the SAP System is up and running (see *Starting and Stopping the SAP System* [page 13]).
2. Start the J2EE engine by entering the following URL in your browser:  
**http://<hostname>:5<J2EEinstance\_number>00**  
The J2EE engine *Start Page* should appear.

3. Select *Examples* and run at least the last example *Message Driven Bean Example* to test the SAP J2EE engine.

## 4.3 Starting the Visual Administrator

1. To start the Visual Administrator, run `\usr\sap\<SAPSID>\JC<xx>\admin\go.bat`.  
The *SAP J2EE Engine – Administration* screen appears.
2. From the menu, choose *Connect® Login*.  
Enter new login data.



Note

Port: P4Port

The following convention applies for the port: `5<J2EEinstance_number>04`

For example, if your J2EE instance number is **00**, the P4port is **50004**.

3. Choose *Connect*.
4. Exit the tool.

## 4.4 Starting and Stopping the SAP Software Delivery Manager (SDM)

### Starting the SDM

The installation automatically starts the *SDM Server*.

You can connect to the SDM server via remote GUI by running the command **RemoteGui.bat** from `\usr\sap\<SAPSID>\JC<xx>\SDM\program\`.

The login data are:

- Password: **sdm**
- Port: **5<J2EEinstance\_number>18**

### Stopping the SDM

Run **stopServer.bat** / **startServer.bat** from directory

`\usr\sap\<SAPSID>\JC<xx>\SDM\program\`

## 4.5 Installing a Permanent SAP License

When you install your SAP system, a temporary license is automatically installed. This temporary license allows you to use the system for four weeks from the date of installation.

Before the temporary license expires, you can apply for a permanent license key from SAP.

For more information, see the SAP Library at <http://help.sap.com/nw2004s> ® *SAP NetWeaver by Key Capability* ® *Solution Life Cycle Management by Key Capability* ® *SAP Licenses* ® *SAP License Key* ® *SAP License*.

## 5 Additional Information

The following sections provides:

- list of users that are created during the installation [page 15]
- information on how to install the SQL Server Database software [page 15]
- information on how to uninstall the Developer Workplace [page 25]
- SAPinst-specific information [page 33]

### 5.1 Users Created During the Installation

The following users are created during the installation:

User Type	User	Comment
Operating system user	<sapsid>adm	SAP system administrator
Operating system user	SAPService<SAPSID>	User to run the SAP system
Operating system user	sqd<dbsid>	MaxDB database administrator (that is, the owner of the database files)
Administrator	J2EE_ADMIN	This user's password is stored in secure storage. Therefore, whenever you change the administrator's password, you must also change the password in secure storage. For more information, see the SAP Java Documentation at <a href="http://help.sap.com/nw2004s">help.sap.com/nw2004s</a> ® SAP NetWeaver Library ® SAP NetWeaver by Key Capability ® Application Platform by Key Capability ® Java Technology..
Guest	J2EE_GUEST	—

### 5.2 Installing the SQL Server Database Software

The following sections describe how to install the SQL Server 2000 or SQL Server 2005 database software. The SQL Server software has to be installed on each host in the system where you intend to set up an SAP instance. Depending on the type of host involved, you either have to install the software for the database **client** or **server**.

To install the SQL Server database software you have the following options:

- You install SQL Server automatically with SQLASAP [page 16]
- You install the SQL Server database software manually [page 16].

### 5.2.1 Installing the SQL Server Database Software with SQL4SAP

This section describes how to install the SQL Server 2000 or SQL Server 2005 database software automatically.

**Note**

For more information about installing with `SQL4SAP.VBS`, see *Customized Installation of SQL Server for an SAP System with SQL4SAP.VBS* (`SQL4SAP_docu.pdf`) and the `readme.txt`, both of which are located in the root directory of the SQL Server RDBMS DVD.



For **SQL Server 2000**, you use the `SQL4SAP.VBS` script to automatically install the:

- SQL Server 2000 Enterprise Edition on 32-bit or 64-bit systems.
- Latest SQL Server 2000 service pack
- Latest SQL Server hotfix, if required.
- `SQL_Latin1_General_CP850_BIN` or `SQL_Latin1_General_CP850_BIN2` collation.

**Note**

For up-to-date information about installing SQL Server **2000** with `SQL4SAP.VBS`, read **SAP Note [377430](#)**, which also includes the material number of the DVD containing the VB script.



For **SQL Server 2005**, you use the `SQL4SAP.VBS` script to automatically install:

- One of the following SQL Server 2005 editions:
  - ◆ 32-bit SQL Server 2005 Enterprise Edition on x86 systems
  - ◆ 64-bit SQL Server 2005 Enterprise Edition on x64 systems
  - ◆ 64-bit SQL Server 2005 Enterprise Edition on IA64 systems
- *Default Instances, Named Instances, or SQL Server Client Tools Only.*

**Note**

For up-to-date information about installing SQL Server **2005** with `SQL4SAP`, read **SAP Note [896566](#)**.

#### Procedure

1. For **SQL Server 2000**, insert the SQL Server 2000 RDBMS SP4 DVD into your DVD drive or mount the network share locally.
2. For **SQL Server 2005**, insert the SQL Server 2005 RDBMS DVD in your DVD drive or mount the network share locally.
3. Double-click `SQL4SAP.VBS` located in the root directory.
4. Follow the instructions and enter the required information in the installation screens.

### 5.2.2 Installing the SQL Server Database Software Manually

The following describes how to install the SQL Server 2000 or SQL Server 2005 database software manually.

**Note**

If you install SQL Server 2000 the installation differs on a 32-bit or 64-bit system. If required, you also have to install the corrected collation for SQL Server 2000.

### 5.2.2.1 Installing the SQL Server 2000 Database Software on 32-Bit Manually

The MS SQL Server software has to be installed on each host in the system where you intend to set up an SAP instance. Depending on the type of host involved, you either have to install the software for the database **client** or **server**.

- The software for the **server** must be installed on the database host. It provides all the functions required to run a relational database management system.
- The software for the **client** must be installed on all hosts without the database. It enables the communication between a host and the database.

#### Procedure

1. Log on to the host as a local administrator.

**Caution**

Make sure that you have not applied NTFS compression to the disk where you install the MS SQL Server software.

2. Insert the MS SQL Server 2000 RDBMS SP4 DVD into your DVD drive.
3. Start the installation program with `autorun.exe` located in the `x86\SQL2000` directory of the *MS SQL Server 2000 RDBMS SP4 DVD*.

**Note**

Ignore the compatibility warning and choose *Continue*.


Enter the required information as specified in the table below.

**Note**

When you mount the DVD from a remote server, it must be assigned a drive letter.  
The installation writes a log file `sqlstp.log` to the Windows directory `%windir%`

Input for MS SQL Server Installation on 32-Bit Systems

Window	Server Input	Client Input
<i>Microsoft SQL Server 2000 Enterprise Edition</i>	Select <i>SQL Server 2000 Components</i> .	Select <i>SQL Server 2000 Components</i> .
<i>Install Components Microsoft SQL Server 2000 Enterprise Edition</i>	Select <i>Install Database Server</i> .	Select <i>Install Database Server</i> .

Window	Server Input	Client Input
Welcome	Choose <i>Next</i> .	Choose <i>Next</i> .
Computer Name	Select <i>Local Computer</i> .	Select <i>Local Computer</i> .
Installation Selection	Select <i>Create a new instance of SQL Server, or install Client Tools</i> .	Select <i>Create a new instance of SQL Server or install Client Tools</i> .
User Information	Enter your personal information.	Enter your personal information.
Software License Agreement	Choose <i>Yes</i> .	Choose <i>Yes</i> .
CD-Key	Enter the key specified in the file <b>SAPCDKEY.txt</b> in the root directory of the RDBMS DVD.	Enter the key specified in the file <b>SAPCDKEY.txt</b> in the root directory of the RDBMS DVD.
Installation Definition	Select <i>Server and Client Tools</i> .	Select <i>Client Tools Only</i> .
Instance Name	Select <i>Default</i> . Do not specify an instance name.	Dialog box does not appear.
Setup Type	Select <i>Custom</i> .	Dialog box does not appear.
Select Components	Select all components.	Select all components.
Service Accounts	Select <i>Use the same account for each service. Auto start SQL Server Service</i> . Select <i>Use the Local System account</i> .	Dialog box does not appear.
Authentication mode	Select the authentication mode. We recommend to use <i>Windows authentication mode</i> .   <b>Note</b> For a Java system, <i>Mixed mode</i> is required. SAPinst automatically changes the authentication mode into <i>Mixed mode</i> when installing a Java system.	Dialog box does not appear.
Collation settings	Select <i>SQL Collations</i> . From the drop-down list select <i>Binary order, for use with the 850 (Multilingual) Character Set</i> .	Dialog box does not appear.
Network Libraries	Leave selection unchanged and choose <i>Next</i> .	Dialog box does not appear.
Start Copying Files	Choose <i>Next</i> .	Choose <i>Next</i> .
Choose Licensing Mode	Select the mode you require.	Dialog box does not appear.

4. When you have finished the installation, install the latest Service Pack, and the latest hotfix, if available, for SQL Server 2000.

For more information on the latest Service Pack, see **SAP Note 62988**.

For more information on the latest hotfix, see **SAP Note 608651**.



5. If you have installed the server software, install the *corrected MS SQL Server collation* [page 21]. For more information on the SQL Server collation, see **SAP Note 600027**.

### 5.2.2.2 Installing the SQL Server 2000 Database Software on 64-Bit Manually

On a 64-bit system, you cannot run the SQL Server 2000 graphical user interface (GUI) tools, with the following exceptions:

- Client Network Utility (supported by the 64-bit Windows operating system)
- Server Network Utility
- Service Manager
- SQL Server 2000 Licensing (in Control Panel)
- Setup.exe (supported by Windows Installer)

If you want to use the other SQL Server 2000 GUI tools with the 64-bit version of SQL Server 2000, you have to install them with the 32-bit version of SQL Server 2000 on a 32-bit computer and use them to remotely manage the 64-bit server.



#### Note

- You can install the 32-bit graphical user interface management tools from the 32-bit directory of the MS SQL Server 2000 RDBMS SP4 DVD.
- Graphical interface management tools which were installed with the 32-bit version of SQL Server 2000 are not supported in the 64-bit version. For more information refer to the `readme.txt` file in the `IA64\SQL2000` subdirectory.

### Procedure

1. Log on to the host as a local administrator.






#### Caution

Make sure that you have not applied NTFS compression to the disk where you install the MS SQL Server software.

2. Insert the MS SQL Server 2000 RDBMS SP4 DVD into your DVD drive.
3. To start the installation, run `setup.exe` located in the directory `IA64\SQL2000`.
4. Enter the required information as specified in the following table:

Input for the MS SQL Server Installation on 64-Bit Systems

Window	Input
<i>Registration Information</i>	Enter your name and the product key specified in the file <code>SAPCDKEY.txt</code> in the root directory of the RDBMS DVD.
<i>Software License Agreement</i>	Choose <i>Yes</i> .

Window	Input
<i>Feature Selection</i>	<ul style="list-style-type: none"> <li>■ <b>Server Software:</b> Select <b>all</b> components.</li> <li>■ <b>Client Software:</b> Select <i>SQL Server Management Tools</i>.</li> </ul> <p> <b>Note</b> To select a component, left-click on it and choose <i>Entire feature will be installed on local hard drive</i>. To deselect a component, left-click on it, and choose <i>Entire feature will be unavailable</i>.</p>
<i>Instance Name</i>	Select the instance type you want to install.
<i>Service Account</i>	Select <i>Use the same account for each service. Auto start SQL Server Service</i> . Select <i>Use the Local System account</i> .
<i>Authentication Mode</i>	<ul style="list-style-type: none"> <li>■ Select the authentication mode. We recommend to use <i>Windows authentication mode</i>.</li> </ul> <p> <b>Note</b> For a Java system, <i>Mixed mode</i> is required. SAPinst automatically changes the authentication mode into <i>Mixed mode</i> when installing a Java system.</p> <ul style="list-style-type: none"> <li>■ Enter and confirm the password for the <i>sa</i> login.</li> </ul> <p> <b>Note</b> If you have chosen <i>Windows authentication mode</i>, the <i>sa</i> login is created, but cannot be used.</p>
<i>Security Enhancement: Cross Database Ownership Chaining</i>	Leave selection unchanged and choose <i>Next</i> .
<i>Collation Settings</i>	Select <i>SQL Collations</i> . From the drop-down list select <i>Binary order, for use with the 850 (Multilingual) Character Set</i> .
<i>Licensing Mode</i>	Select the licensing mode and choose <i>Next</i> .
<i>Ready to Install</i>	Select <i>Install</i> .

5. When you have finished the installation, install the latest Service Pack , and the latest hotfix, if available, for SQL Server 2000.

For more information on the latest Service Pack, see **SAP Note** [62988](#).

For more information on the latest hotfix, see **SAP Note** [608651](#).

6. If you have installed the server software, install the *corrected MS SQL Server collation* [page [21](#)]. For more information on the SQL Server collation, see **SAP Note** [600027](#).

### 5.2.2.3 Installing the Corrected MS SQL Server Collation for MS SQL Server 2000

When you install the MS SQL Server 2000 database for an SAP system, in the field *Collation Settings* you have to select *Binary order, for use with the 850 (Multilingual) Character Set*.

This means that all new databases and table columns will be created with this collation setting.



#### Note

To view the default collation of MS SQL Server use the query:

```
select serverproperty('collation')
```

This query returns the default collation of the overall server. When you have selected *Binary order, for use with the 850 (Multilingual) Character Set*, it returns: `SQL_Latin1_General_CP850_BIN`

Unfortunately this collation setting does not sort Unicode data as it is required by an SAP system. To solve this problem, Microsoft provides a corrected collation for SQL Server.

For more information about installing the collation, see **SAP Note** [600027](#).

#### Prerequisites

- You have installed the MS SQL Server 2000 database software. In the field *Collation Settings*, you selected *Binary order for use with the 850 (Multilingual) Character Set*.
- You have installed the latest service pack and hotfix, if available. For more information, refer to **SAP Notes** [62988](#) and [608651](#).



#### Note

Besides applying the latest service and hotfix, if available, you do not have to make any changes on the client side (SAP application servers).

- To obtain a correct collation order with MS SQL Server, you have to use the new collation for all new installations of a Unicode or non-Unicode SAP system with the MS SQL Server database. New versions of the SAPinst installation tool check for the new collation.
  - A new SAP system using the new collation and an existing SAP system that is using the old collation cannot run as two databases in the same MS SQL Server instance. If you want to install a new system on a database server with an existing system you have to apply the new collation with `INSTCOLL.EXE`.
1. Download the `INSTCOLL.EXE` file for your platform, which is attached as zip file to **SAP Note** [600027](#), and extract it to your server.
  2. Open a command prompt and change to the directory where you extracted the `INSTCOLL.EXE` file.
  3. Enter the following:
    - For a default instance enter: `INSTCOLL.EXE`
    - For a named instance enter: `INSTCOLL.EXE -S<server>\<instance>` (without any spaces after `-S`)

The executable starts the SQL Server Service if it is not running already and runs several checks. When you are asked to apply the new collation to all databases confirm with **Y** (Yes). When the conversion has finished it restarts the SQL Server Service.
  4. To verify whether the MS SQL Server is properly configured, run:

```
select serverproperty('collation')
```

**Caution**

You have to run `INSTCOLL.EXE` only once to apply the new collation. To convert a single SAP database to the new collation, see **SAP Note 600027**.

**Result**

You can now continue with the standard SAP system installation and install any SAP instance on this server.

### 5.2.2.4 Installing the SQL Server 2005 Database Server Software Manually

This section describes how to install the SQL Server 2005 database server software on 32-bit or 64-bit systems manually. If you use an MSCS environment, you have to use the manual procedure. For a standard SAP system, you can also use the *SQLASAP script* [page 16] to install SQL Server 2005.

The SQL Server 2005 database **server** software must be installed on the database host

**Note**

If you want to install the database client software manually, see *Installing the SQL Server 2005 Native Client (SNAC) Software* [page 25].

**Prerequisites**



- When installing SQL Server 2005, make sure that you have enough free disk space available on the system drive for:
  - .Net Framework
    - For 64-bit also the 64-bit .Net Framework in addition to the 32-bit .Net Framework is installed.
  - SQL Server Client Tools
  - SQL Server instance
  - Temporary space during the installation
    - The required disk space depends on the type of SQL Server components already installed or to be installed. It also depends on the system. For a 32-bit system you need up to 2 GB free disk space on the system drive, for a 64-bit system you might require more space.
- Make sure that the *Microsoft Distributed Transaction Coordinator (MSDTC)* service is running before you start the installation.




**Procedure**


1. Log on to the host as a local administrator
2. Insert the SQL Server 2005 RDBMS DVD in your DVD drive or mount it locally.
3. Change to the platform-specific folder and choose *Enterprise Edition® Servers*.
4. Start the installation program with `setup.exe`.
5. Enter the required information as specified in the table below

**Note**

The installation writes the log files to the directory %ProgramFiles%\Microsoft SQL server\90\Setup Bootstrap\LOG. You find the summary of the setup log in `summary.txt` in the same directory.

Window	Server Input
<i>End User License Agreement</i>	Accept the licensing terms and conditions and choose <i>Next</i> .
<i>Installing Prerequisites</i>	Choose <i>Install</i> and, if required, <i>Next</i> .
<i>Welcome to the Microsoft SQL Server Installation Wizard</i>	Choose <i>Next</i> .
<i>System Configuration Check</i>	<p>a) Check your system configuration and, if required, set up the required configuration.</p> <div data-bbox="951 808 992 851" data-label="Image">  </div> <div data-bbox="1002 808 1059 840" data-label="Section-Header"><b>Note</b></div> <div data-bbox="1002 837 1452 1189" data-label="List-Group"> <ul style="list-style-type: none"> <li>■ For more information about the required system configuration for a software component, choose <i>Messages</i>.</li> <li>■ IIS is not required for an SAP system. Therefore, you can ignore the warning about the <i>IIS Feature Requirement</i>.</li> <li>■ If there is a warning in <i>COM Plus Catalog Requirement</i>, correct the configuration before you proceed with the installation. Make sure that the <i>Microsoft Distributed Transaction Coordinator (MSDTC)</i> service is running.</li> </ul> </div> <p>b) Choose <i>Next</i>.</p>
<i>Registration Information</i>	<p>a) Enter your personal information, and the product key</p> <p>b) Choose <i>Next</i>.</p>
<i>Components to Install</i>	<p>a) Select:</p> <ul style="list-style-type: none"> <li>■ <i>SQL Server Database Services</i></li> <li>■ <i>Workstation components, Books Online and development tools</i>.</li> </ul> <p>b) Choose <i>Advanced</i></p>
<i>Feature Selection</i>	<p>a) Expand <i>Database Services</i> and deselect <i>Replication</i>.</p> <p>b) Expand <i>Client Components</i> and if available, deselect <i>Business Intelligence Development Studio</i>.</p> <div data-bbox="951 1727 992 1769" data-label="Image">  </div> <div data-bbox="1002 1727 1059 1756" data-label="Section-Header"><b>Note</b></div> <div data-bbox="1002 1756 1449 1845" data-label="Text"> <p>We recommend that you deselect these features as they are not required for an SAP system.</p> </div> <p>c) Choose <i>Next</i>.</p>

Window	Server Input
<i>Instance Name</i>	<p>Select the instance you want to install and choose <i>Next</i>.</p> <p> <b>Note</b> SAP recommends to install a <i>Default</i> instance.</p>
<i>Service Account</i>	<p>a) Select one of the following options:</p> <ul style="list-style-type: none"> <li>■ <i>Use the built-in System account for each service and choose Local System or Network Service.</i></li> <li>■ <i>Use a domain user account, and enter the user name and password.</i></li> </ul> <p>b) Under <i>Start services at the end of setup</i> make sure that <i>SQL Server</i> and <i>SQL Server Agent</i> are selected.</p> <p> <b>Note</b> If you use a named instance, you must also select <i>SQL Browser</i>.</p> <p>c) Choose <i>Next</i>.</p>
<i>Authentication Mode</i>	<p>a) Select <i>Mixed Mode (Windows Authentication and SQL Server Authentication)</i>. This mode is required for a Java or ABAP+Java system. If you choose this mode, you have to set the password for the <i>sa</i> login.</p> <p> <b>Note</b> SAPinst automatically changes the authentication mode into <i>Mixed Mode</i> when installing a Java system. The password for the <i>sa</i> login must comply with the Windows password policy.</p> <p>b) Choose <i>Next</i>.</p>
<i>Collation Settings</i>	<p>a) Select <i>SQL collations (used for compatibility with previous versions of SQL Server)</i>.</p> <p>b) From the drop-down list select <i>Binary order based on code point comparison, for use with the 850 (Multilingual) Character Set</i>.</p> <p>c) Choose <i>Next</i>.</p>
<i>Error and Usage Report Settings</i>	Leave the selection unchanged and choose <i>Next</i> .
<i>Ready to Install</i>	Choose <i>Install</i> .

Window	Server Input
<i>Setup Progress</i>	 <b>Note</b> To see the log files for the SQL Server components, choose <i>Setup finished</i> .  When the setup process has finished, choose <i>Next</i> .
<i>Completing Microsoft SQL Server 2005 Setup</i>	Choose <i>Finish</i> .

6. When you have finished the installation, enable the *Named Pipes* and *TCP/IP* protocol in the SQL Server Configuration Manager as follows:
  - Choose *Start*® *All Programs*® *Microsoft SQL Server 2005*® *Configuration Tools*® *SQL Server Configuration Manager*.
  - Expand *SQL Server 2005 Network Configuration* and select one of the following:
    - For a **default** instance, select *Protocols for MSSQLServer*
    - For a **named** instance, select *Protocols for <SAPSID>*
    - In the right-hand pane, under *Protocol Name*, right-click *Named Pipes* and *TCP/IP*, and select *Enable*.
7. Restart SQL Server.

### 5.2.2.5 Installing the SQL Server 2005 Native Client Software Manually

This chapter describes how to install the *SQL Server 2005 Native Client (SNAC)* software on 32-bit or 64-bit systems.

The SQL Server 2005 client software must be installed on all hosts without the database. It enables the communication between a host and the database.

#### Procedure

1. Log on as local administrator to the host where you want to install an application server.
2. Insert the SQL Server 2005 RDBMS DVD in your DVD drive or mount it locally.
3. Change to the platform-specific folder and choose `sqlnc1i.msi`



#### Note

You also find the `sqlnc1i.msi` file on the Microsoft SQL Server CD in the *Setup* directory.

4. Follow the instructions in the SQL Server installation setup screens.

## 5.3 Uninstalling the Developer Workplace

You can uninstall the entire Developer Workplace.

### Uninstalling the SAP Developer Workplace with SAPinst

With this procedure you can uninstall the SAP NetWeaver AS Java and the database software.

**Note**

You cannot uninstall the *SAP NetWeaver Developer Studio* by using this procedure. To uninstall the Developer Studio separately, refer to the documentation *Installation Guide – SAP NetWeaver Developer Studio* at [service.sap.com/installnw2004s](http://service.sap.com/installnw2004s) <sup>®</sup> *Installation*.

**Note**

You need to have the original *SAP NetWeaver 2004s Developer Workplace DVD* because the downloaded stack version does not contain this feature.

1. Log on to your installation host as user with administrator rights.
2. Insert the *SAP NetWeaver 2004s Developer Workplace DVD* in your DVD drive or mount it locally.
3. Start SAPinst by double-clicking **sapinst.exe** from the following path:  
**<DVD drive>:\IM\_WINDOWS\_I386**  
 SAPinst GUI starts automatically by displaying the *Welcome* screen.
4. In the *Welcome* screen, choose **Uninstall** <sup>®</sup> *Uninstall – Developer Workplace*.
5. Follow the instructions on the screens.
6. Define the SAPSID and DBSID that should be uninstalled.  
 You can also decide to uninstall the *SAP NetWeaver Developer Studio*.
7. If you decided to uninstall the DBSID, the following screens appear:
  - *Uninstallation of MaxDB database schema / database / software*  
 If you select *Drop the whole database*, the selected DBSID and its database schema will be deleted.  
 If you only select *Remove* for the database schema, the DBSID will not be deleted, but the database schema only.
  - *Uninstallation of MaxDB database schema / database / software*  
 This second dialog only appears, if you have selected *Drop the whole database* above.  
 Here you can define to uninstall the whole MaxDB software.
8. On the *Start Installation* screen, choose *Start* to perform the uninstallation.  
 Note that during the MaxDB uninstallation several pop-ups must be confirmed with OK.  
 If you have decided to uninstall the *SAP NetWeaver Developer Studio*, the *SAP NetWeaver Developer Studio Uninstall Wizard* appears.

**Caution**

Do not cancel the SAPinst GUI during the Developer Workplace uninstallation, as this leads to an unsuccessful uninstallation which cannot be continued with SAPinst.

### Uninstalling the SAP Developer Workplace via the Windows Control Panel

With this procedure you install the Integrated Development Environment (IDE) only.

1. Choose **Start** <sup>®</sup> **Settings** <sup>®</sup> **Control Panel** <sup>®</sup> *Add/Remove Programs* and select *SAP Developer Workplace*.
2. Follow the instructions on the screen.



## 5.4 Troubleshooting for Automated Basic Configuration Steps

You have to perform the following steps manually if either SAPinst fails or if you want to adjust existing parameters or set additional parameters.

### 5.4.1 SLD: Post-Installation Steps

You have to perform the following post-installation steps for the SLD:

- Maintaining SLD Connection Parameters
- Maintaining Server Settings in SLD
- Uploading SLD Content
- Configuring the SLD Gateway/Startup Bridge
- Maintaining the ABAP Connection
- Configuring the SLD Data Supplier Service

For more information on these steps see the *Post-Installation Guide — System Landscape Directory SAP NetWeaver 2004s* at [service.sap.com/installNW2004s](http://service.sap.com/installNW2004s).

### 5.4.2 Post-Installation Steps for Composite Application Framework (CAF)

You need to perform the following post-installation steps for Composite Application Framework (CAF) after SAPinst has finished.

#### 5.4.2.1 Setting Up Roles

You have to create the roles CAFAdmin and CAFUIAdmin first. After role setup, you can assign the roles to the dedicated users.

##### Setting Up the Administrator Role

1. Launch the User Administrator tool within SAP NetWeaver:  
`http://<host>:<port>/useradmin`
2. From the left pane, choose *Roles*.
3. To create the role CAFAdmin, select the *Create New* icon.
4. Enter **CAFAdmin** and a description (optional).
5. From *Available Actions*, select `com.sap.caf.rt.caf.aut` and choose *Add*. The action appears in the *Selected Actions* window.
6. Choose *Save*.  
CAFAdmin appears in the *Roles* list. If not, enter the role name next to *New Search* and select the icon to search.

**Note**

By configuring CAFAdmin, you can permit configuration of data source assignments of entity services, as well as the import of external services.

7. To create the role CAFUIAdmin, repeat steps 3-6 above.  
This allows the configuration of user interface (UI) components.

### Assigning Users

1. Repeat steps 1-2 as described above.
2. From *Roles*, select the role you want to assign.  
Multiple selections are allowed.
3. Select the icon *Assign User To...*  
The *Assign User(s)* window appears.
4. Select the "plus" icon to add a user.
5. Enter the name of any piece of information about the user you want to select and choose *Search*.
6. Select the user from the list and choose *Select*.
7. Choose *Continue*.  
The user is assigned the role.

### 5.4.2.2 Setting Configuration Parameters

You have to adjust general system configuration parameters for CAF.

For more information on these steps, see the *CAF-GP Configuration Guide* in the SAP Library at [help.sap.com/nw2004s](http://help.sap.com/nw2004s) ® ® SAP NetWeaver Library ® Technology Consultant's Guide ® Developing, Configuring, and Adapting Applications ® Creating Composite Applications.

### 5.4.3 Post-Installation Steps for Adobe Document Services (ADS)

You need to perform the following post-installation steps for Adobe Document Services (ADS) after SAPinst has finished.

#### 5.4.3.1 Checking the IIOP Service

The startup mode of the service `iiop` must be set to `always`. To verify this, you have to check and if required modify special settings on the central instance host.

#### Procedure

1. Start the configuration tool of the J2EE engine:  
Run `\usr\sap<SAPSID>\DVEBMGS<xx>\j2ee\configtool.bat`  
Run `\usr\sap<SAPSID>\JC<xx>\j2ee\configtool.bat`

The *J2EE Engine – Config Tool* screen appears.

2. In the left frame, open the tree *Cluster data* ® *Global dispatcher configuration* ® *Services*.
3. Choose service *iiop*.
4. The field *Startup mode* in the right frame must be set to **always**.
5. Choose *Apply changes*.
6. Repeat the steps 2. – 5. for the following path: *Cluster data* ® *Global server configuration* ® *Services*.

### 5.4.3.2 Checking Java Startup Properties

You have to check if the Java startup property for Adobe document services is set. To do so, you have to check and if required modify special settings on the central instance host.

#### Procedure

1. Start the configuration tool of the J2EE engine:  
 Run `\usr\sap<SAPSID>\DVEBMGS<xx>\j2ee\configtool.bat`  
 Run `\usr\sap<SAPSID>\JC<xx>\j2ee\configtool.bat`  
 The *J2EE Engine – Config Tool* screen appears.
2. Select *cluster data* ® *instance\_<IDxxx>* ® *server\_<IDxxx>*.
3. In the right frame, check if the following line exists in the section *Juva Parameters* of the tab *General*:  
`-Dorg.omg.PortableInterceptor.ORBInitializerClass.com.sap.engine.  
 services.ts.jts.ots.PortableInterceptor.JTSInitializer`  
 If it is not true, add the line to this section.

### 5.4.3.3 Entering Credentials

As the installation asks for a Adobe Credentials file during the installation, you need to have this file available during the installation.

Get the Adobe Credential file as described in [SAP Note 736902](#).

### 5.4.3.4 Creating a User for Basic Authentication

To ensure secure access, you must create a user and assign the security role **ADSCaller** to this user. The **ADSCaller** security role was created during the SAP system installation.



#### Caution




Do not assign this security role to users other than the system user that you will use for accessing Adobe document services.

You can create this user in the J2EE Engine or in the SAP NetWeaver usage type AS ABAP depending on the J2EE installation settings for the SAP User Management Engine (UME). You create this user in the usage type








AS ABAP when the UME is configured against the SAP NetWeaver usage type AS ABAP back-end. In this case you also have to create a role **ADSCallers** in the usage type AS ABAP and assign the user **ADSUser** to this role.

## Procedure

### Creating a User in AS Java

1. Log on to the Visual Administrator of the J2EE Engine.
  - a) On your central instance host, change to the **admin** directory:  
(path: \usr\sap\<SAPSID>\<instance\_number>\j2ee\admin):
  - b) Double-click **go.bat**.
2. On the *Cluster* tab, choose *Server* <x>  *Services*  *Security Provider*.
3. On the *User Management* tab, choose *Create Group* to create a group called **ADSCallers**, if the group does not exist. In the dialog box that follows, enter the name and choose **OK**.
4. Choose *Create User*.  
The *Create New User* dialog box is displayed.
5. In the *User name*, *Password*, and *Confirm password* boxes, enter **ADSUser** for the user name and enter a password.
6. Choose the *Tree* tab in the right panel. In the *User Tree*, select **ADSCallers**, and then choose **OK**.
7. Choose the *Tree* tab in the left panel. Select **ADSCallers**  **ADSUser**.
8. In the *Authentication* area, select *No password change required*.
9. On the *Policy Configurations* tab, in the *Components* area, select  
**com.adobe/AdobeDocumentServices\*AdobeDocumentServicesAssembly.jar**.
10. On the *Security Roles* tab, select **ADSCaller** from the *Security Roles* list.
11. In the *Mappings* area, choose *Add*, which is assigned to *Users*.  
The dialog *Choose Users or Groups* is displayed.
12. Choose the *Tree* tab.
13. In the *User Tree*, under the **ADSCallers** group, select the **ADSUser** that you just created and choose **OK**.  
This assigns the new user to the **ADSCaller** security role.

### Creating a User in AS ABAP

1. Log on to the SAP system with an admin user, in the client that is used for the UME authentication.
2. Choose *Tools*  *Administration*  *User Maintenance*  *User* (transaction SU01).
3. Enter **ADSUser** as user name and choose *Create*.
4. Choose *system user* as type for **ADSUser**.
5. Choose *Tools*  *Administration*  *User Maintenance*  *Role Administration*  *Roles* (transaction PFCG).
6. Create a role **ADSCallers** (no authorizations required).
7. Activate the role.
8. Assign the user **ADSUser** to this role.
9. Log on to the Visual Administrator of the J2EE Engine.
  - a) On your central instance host, change to the **admin** directory:  
(path: /usr/sap/<SAPSID>/<instance\_number>/j2ee/admin):  
(path: \usr\sap\<SAPSID>\<instance\_number>\j2ee\admin):
  - b) Run **go.sh**.
  - c) Double-click **go.bat**.

10. On the *Cluster* tab, choose *Server* <x> ® *Services* ® *Security Provider*.
11. On the *User Management* tab, choose the *Tree* tab in the left panel.
12. In the *User Tree*, ensure that the user you created in ABAP appears under the *ADSCallers* group.
13. On the *Policy Configurations* tab, in the *Components* area, select  
`com.adobe/AdobeDocumentServices*AdobeDocumentServicesAssembly.jar`.
14. On the *Security Roles* tab, select *ADSCaller* from the *Security Roles* list.
15. In the *Mappings* area, choose *Add*, which is assigned to *Users*.  
The dialog *Choose Users or Groups* is displayed.
16. Choose the *Tree* tab.
17. In the *User Tree*, under the *ADSCallers* group, select the *ADSUser* you just created and choose *OK*.  
This assigns the new user to the *ADSCaller* security role.

### 5.4.3.5 Creating a Web Service Destination









Here you find information how to create a Web Service Destination.

#### Procedure

1. Log on to the Visual Administrator of the J2EE engine:
  - a) On your central instance host, change to the **admin** directory:  
(path: `\usr\sap\<SAPSID>\<instance_number>\j2ee\admin`):
  - b) Double-click **go.bat**.
2. On the *Cluster* tab, choose *Server* <x> ® *Services* ® *Web Services Security*.
3. Choose *Web Service Clients* ® *sap.com* > *tc~wd~pdfobject* ®  
`com.sap.tc.webdynpro.adsproxy.AdsProxy*ConfigPort_Document`.
4. From the *Authentication* list, select *BASIC*.
5. In the *User* and *Password* boxes, enter as user name **ADSUser** and a password.
6. Choose *Save*.
7. Activate the authentication data as follows: Navigate to *Services* ® *Deploy*.
8. Choose the button *Application*.
9. Choose *sap.com/tc~wd~pdfobject* in the tree.
10. Choose *Stop Application*.
11. For restarting the application, choose *Start Application*.

**Note**



If the Adobe document services and the Web Dynpro runtime environment are not installed on the same J2EE Engine, you have to configure a *Custom URL*. For more information, see:

[help.sap.com/nw2004s](http://help.sap.com/nw2004s)  *SAP NetWeaver Library*  *SAP NetWeaver by Key Capability*  *Application Platform by Key Capability*  *Java Technology*  *Administration Manual*  *Administration/Configuration of Web Dynpro Runtime Environment*  *Web Dynpro-Specific URL Parameters*  *Configuring the Web Dynpro Runtime Environment*.


### 5.4.3.6 Creating a HTTP Destination

You have to create a HTTP destination to the back-end where the Adobe document services are installed.

#### Procedure

1. Start the Visual Administrator of the J2EE Engine.
  - a) On your central instance host, change to the **admin** directory:  
(path: \usr\sap\<SAPSID>\<instance\_number>\j2ee\admin):
  - b) Double-click **go.bat**.
2. On the *Cluster* tab, choose *Server <x>*  *Services*  *Destinations*. Under *Runtime*, select *HTTP*. The available destinations are displayed. The information that applies to a selected destination is displayed in the right pane.
3. Choose *New* in the navigation panel.
4. In the dialog box that follows, enter the name **FP\_ICF\_DATA\_<SID>** (where <SID> specifies the back-end where the Adobe document services are installed) for the new destination and choose *OK*.
5. As the target URL, enter the message server (or Web Dispatcher) of the SAP NetWeaver AS ABAP in the URL field:  
**http://<hostname>:<HTTP\_port>**  
and in case of SSL:  
**https://<hostname>:<HTTPS\_port>**

**Note**

To display the host name of your SAP NetWeaver AS ABAP, log on your ABAP system and call transaction **SICF**. In the main menu, choose *Go to*  *Port Information*. The information is displayed on a screen. The **HTTP\_port** is specified under *Services*.

6. Select the authentication method to use for the connection, and enter the parameters for the authentication method in the corresponding fields (if applicable).
  - In the *Username* field, enter **ADS\_AGENT** (must exist as service user in usage type AS ABAP).
  - In the *Password* field, enter the same password as given for the AS ABAP service user **ADS\_AGENT**.
7. If the connection is to use **HTTPS**, specify how the connection should handle SSL server authentication.
8. Save your settings.

## 5.4.4 Post-Installation Steps for Enterprise Portal (EP)

You need to perform the following post-installation steps for Enterprise Portal (EP) after SAPinst has finished.

### 5.4.4.1 Copying CMS\_MAPPING Properties

Copy the `cms_mapping.properties` file from the source directory  
`/usr/sap/<sid>/JCxx/j2ee/cluster/server<x>/apps/sap.com/irj/servlet_jsp/irj/root/WEB-INF`  
`/portal/system/pcd/Migration/mapping/`  
into the target directory `/usr/sap/<sid>/SYS/global/pcd/Migration/mapping/`.



Note

If the target directory does not exist, you have to create it as well.

### 5.4.4.2 Renaming InitialPermissions.xml.template

1. Go to the directory  
`/usr/sap/<id>/JCxx/j2ee/cluster/server<x>/apps/sap.com/irj/servlet_jsp/irj/root/WEB-INF`  
`/portal/system/xml/ac1`
2. Rename the file `initialPermissions.xml.template` to `initialPermissions.xml`.

### 5.4.4.3 Renaming initialPermissionsKMC.xml.template

1. Go to the directory  
`/usr/sap/<sid>/JCxx/j2ee/cluster/server<x>/apps/sap.com/irj/servlet_jsp/irj/root/WEB-INF`  
`/portal/system/xml/ac1`.
2. Rename the file `initialPermissionsKMC.xml.template` to `initialPermissionsKMC.xml`.

## 5.5 SAPinst-specific Information

### 5.5.1 Interrupted Installation with SAPinst

The SAP system installation might be interrupted for one of the following reasons:

- An error occurred during the dialog or processing phase:  
SAPinst does not abort the installation in error situations. If an error occurs, the installation pauses and a dialog box appears. The dialog box contains a short description about the choices listed in the table below as well as a path to a log file that contains detailed information about the error.
- You interrupted the installation by choosing *Exit* in the SAPinst menu.

The following table describes the options in the dialog box:

Option	Definition
<i>Retry</i>	SAPinst retries the installation from the point of failure without repeating any of the previous steps. This is possible because SAPinst records the installation progress in the <code>keydb.xml</code> file. We recommend that you view the entries in the log files, try to solve the problem and then choose <i>Retry</i> . If the same or a different error occurs again, SAPinst displays the same dialog box again.
<i>Stop</i>	SAPinst stops the installation, closing the dialog box, the SAPinst GUI, and the GUI server. SAPinst records the installation progress in the <code>keydb.xml</code> file. Therefore, you can continue the installation from the point of failure without repeating any of the previous steps. See the procedure below.
<i>Continue</i>	SAPinst continues the installation from the current point.

## Procedure

This procedure describes the steps to restart an installation, which you stopped by choosing *Stop*, or to continue an interrupted installation after an error situation.

1. Log on to your remote host as a user who is a member of the local administrators group.
2. Insert the Installation Master DVD in your DVD drive.
3. Enter the following commands at the Windows command prompt:  

```
cd <DVD drive>:\IM_WINDOWS<platform>
sapinst.exe
```
4. From the tree structure in the *Welcome* screen, select the installation service that you want to continue and choose *Next*.



Note

If there is only one component to install, the *Welcome* screen does not appear.

The *What do you want to do?* screen appears.

5. In the *What do you want to do?* screen, decide between the following alternatives and confirm with *OK*.

Alternative	Behavior
<i>Run a new Installation</i>	SAPinst does not continue the interrupted installation. Instead, it moves the content of the old installation directory and all installation-specific files to the backup directory. Afterwards, you can no longer continue the old installation. For the backup directory, the following naming convention is used: <log_day_month_year_hours_minutes_seconds> (for example, log_01_Oct_2003_13_47_56).
<i>Continue old installation</i>	SAPinst continues the interrupted installation from the point of failure.



## 5.5.2 Starting SAPinst on the Remote Host (Optional)

You can use this procedure to install your SAP system on a **remote** host. In this case, SAPinst and the GUI server run on the remote host, and SAPinst GUI runs on the local host. The local host is the host from which you want to control the installation with SAPinst GUI.

### Prerequisites

- You have *installed the Java Development Kit* [page 7].
- Both computers are in the same network and can ping each other.  
To test this:
  - Log on to your remote host and enter the command **ping <local host>**.
  - Log on to the local host and enter the command **ping <remote host>**.

### Procedure

1. Log on to your remote host as a user who is a member of the local administrators group.
2. Insert the Installation Master DVD in the DVD drive on your remote host.
3. Open a command prompt, and enter the following commands:  

```
cd <DVD drive>:\IM_WINDOWS_<platform>
sapinst.exe -nogui
```

SAPinst now starts and waits for the connection to the SAPinst GUI. You see the following at the command prompt:

```
guiengine: no GUI connected; waiting for a connection on host <host_name>, port
<port_number> to continue with the installation
```
4. Start SAPinst GUI on your **local** host, as described in *Starting SAPinst GUI Separately* [page 35].

## 5.5.3 Starting SAPinst GUI Separately (Optional)

You use this procedure to start SAPinst GUI separately. You might need to start SAPinst GUI separately in the following cases:

- You have logged off from SAPinst.  
If you logged off during the installation and you later want to reconnect to the still running installation, you can start SAPinst GUI separately.
- You want to perform a remote installation.  
If SAPinst GUI runs on a **different** host than SAPinst and the GUI server, you also have to start SAPinst GUI separately.

### Prerequisites

You have *installed the Java Development Kit* [page 7].

### Procedure

1. Log on as a member of the local administrators group.
2. Insert the SAP installation DVD into your DVD drive.

3. To change to the relevant directory enter the following command:  
**cd <DVD drive>:\IM\_WINDOWS<platform>**
4. Start SAPinst GUI in one of the following ways:
  - If SAPinst GUI runs on the same host as SAPinst and the GUI server, enter the following command **without** additional parameters:  
**startinstgui.bat**  
 SAPinst GUI uses as default the local host.
  - If SAPinst and the GUI server runs on a different host than SAPinst GUI (remote installation), enter the following command **with** additional parameters:  
**startinstgui.bat -host <host\_name>**  
**<host\_name>** is the host name of the installation host.

**Note**

- If you enter the command without additional parameters, SAPinst GUI uses as default the local host. SAPinst GUI starts and tries to connect to the GUI server and SAPinst. As SAPinst and the GUI server are running on another host, SAPinst GUI cannot connect and the *SAP Installation GUI Connection* dialog appears.  
 In this case, enter the host name where SAPinst is running and choose *Log on*.  
 The first dialog of the installation appears and you can perform the remote installation from your local host.
- For a list of options to start SAPinst GUI, change to the same directory as your SAPinst executable and enter the command **startinstgui.bat -h**.

## 5.5.4 Troubleshooting with SAPinst

This section tells you how to proceed when errors occur during the installation with SAPinst.

If an error occurs, SAPinst:

- Stops the installation
- Displays a dialog informing you about the error

### Procedure

1. To view the log file, choose *View Logs*.
2. If an error occurs during the dialog or processing phase, do either of the following:
  - Try to solve the problem
  - Abort the installation with *Exit*  
 For more information, see *Interrupted Installation with SAPinst* [page 33].
  - Continue the installation by choosing *Retry*.
3. Check the log and trace files of the GUI server and SAPinst GUI in the directory %userprofile%\sdtgui\ for errors.
4. If SAPinst GUI does not start, check the file **sdtstart.err** in the current %userprofile% directory.
5. If SAPinst GUI aborts during the installation without an error message, restart SAPinst GUI as described in *Starting SAPinst GUI Separately*.

6. Ignore error messages in the SDM logs that state that software components are not available. For more information, see **SAP Note** [828978](#).

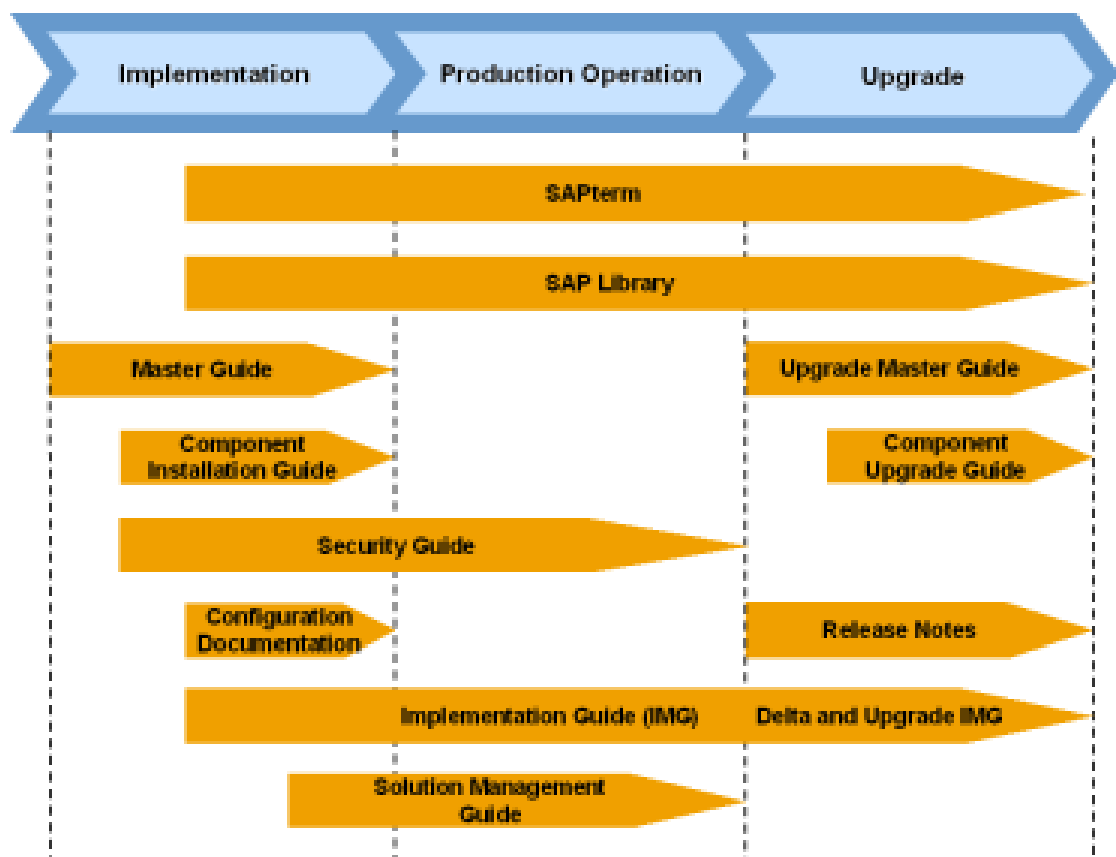
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## A Reference

### A.1 The Main SAP Documentation Types

The following is an overview of the **most important** documentation types that you need in the various phases in the life cycle of an SAP solution.

**Figure 2:** Documentation types in the software life cycle



#### Cross-Phase Documentation

**SAPterm**—SAPterm is SAP's terminology database. It contains SAP-specific vocabulary in over 30 languages, as well as many glossary entries in English and German.

- Target group:
  - Relevant for all target groups
- Current version:
  - Located in the SAP Help Portal at [help.sap.com](https://help.sap.com)® *Additional Information*® *Glossary* or *Terminology* (also available as terminology CD)

- In the SAP-System in transaction **STERM**

**SAP Library**—The SAP Library is a collection of function- and process-oriented documentation for SAP components. The SAP Library also contains the Business Scenario Descriptions.

- Target group:
  - Consultants
  - System administrators
  - Project teams for implementations or upgrades
- Current version:
  - Located in the SAP Help Portal at [help.sap.com](http://help.sap.com) (also available as documentation CD)
  - Located in the SAP Service Marketplace at [service.sap.com/ibc](http://service.sap.com/ibc) (only the Business Scenario Descriptions)

**Implementation Guide (IMG)**—The Implementation Guide is a tool for configuring the SAP system to meet customer requirements. Its structure and documentation are component-oriented.

- Target group:
  - Solution consultants
  - Project teams for implementations or upgrades
- Current version:
  - In the SAP menu of the SAP system under *Tools*® *Customizing*® *IMG*

**Security Guide**—The Security Guide describes the settings for a medium security level and offers suggestions for raising security levels. A collective security guide is available for the SAP NetWeaver technologies, such as the SAP Web Application Server (SAP Web AS). This document contains general guidelines and suggestions about system security. Other technologies and individual applications have a Security Guide of their own.

- Target group:
  - Technology consultants
  - Solution consultants
  - Project teams for implementations or upgrades
- Current version:
  - Located in the SAP Service Marketplace at [service.sap.com/securityguide](http://service.sap.com/securityguide)

### Implementation

**Master Guide**—The Master Guide is the starting point for implementing an SAP solution. It lists the required SAP components, and third-party applications that are required for each Business Scenario. It provides scenario-specific descriptions of preparation, execution, and follow-up of an implementation. It also offers references to other documents, such as Component Installation Guides and SAP Notes.

- Target group:
  - Technology consultants
  - System administrators
  - Project teams for implementations
- Current version:
  - Located in the SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides)

**Component Installation Guide**—The Component Installation Guide describes the technical implementation of an SAP component, taking into account the combinations of operating systems and databases. It does not describe any business-related configuration.

- Target group:
  - Technology consultants
  - Project teams for implementations
- Current version:
  - Located in the SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides)

**Configuration Documentation in SAP Solution Manager**—SAP Solution Manager is a tool with various functions, one of its main functions being the configuration of SAP solutions and Business Scenarios. It contains IMG activities, transactions, and so on, as well as documentation. Instead of the configuration documentation in SAP Solution Manager, there may be separate Business Scenario Configuration Guides in the SAP Service Marketplace for previous shipments of the Business Scenarios.

- Target group:
  - Solution consultants
  - Project teams for implementations
- Current version:
  - In SAP Solution Manager
  - Located in the SAP Service Marketplace at [service.sap.com/ibc](http://service.sap.com/ibc)

### Production Operation

**Solution Management Guide**—The Solution Management Guide is the starting point for operating an SAP solution. The guide refers users to the tools and documentation that are needed to carry out various tasks, such as monitoring, backup / restore, master data maintenance, transports, and tests. It also refers users to other documents, for example the SAP Library, the Master Guide, and the Component Management Guides.

- Target group:
  - System administrators
  - Technology consultants
  - Solution consultants
  - Project teams for implementations or upgrades
- Current version:
  - Located in the SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides)

### Upgrade

**Upgrade Master Guide**—The Upgrade Master Guide is the starting point for upgrading the Business Scenarios of an SAP solution. It provides scenario-specific descriptions of preparation, execution, and follow-up of an upgrade. It also refers to other documents, such as the Component Upgrade Guides and SAP Notes. Instead of an Upgrade Master Guide, there may be several Business Scenario Upgrade Guides or a Solution Upgrade Guide for previous shipments of the Business Scenarios of an SAP solution.

- Target group:
  - Technology consultants
  - Project teams for upgrades

## ■ Current version:

- Located in the SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides)

**Component Upgrade Guide**—The Component Upgrade Guide describes the technical upgrade of an SAP component, taking into account the combinations of operating systems and databases. It does not describe any business-related configuration.

## ■ Target group:

- Technology consultants
- Project teams for upgrades

## ■ Current version:

- Located in the SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides)

**Release Notes**—Release Notes are documents that contain short descriptions of new features or changes in an SAP component since the previous release. Release Notes about ABAP developments enable the SAP system to generate delta and upgrade IMGs

## ■ Target group:

- Consultants
- Project teams for upgrades

## ■ Current version:

- Located in the SAP Service Marketplace at [service.sap.com/releasenotes](http://service.sap.com/releasenotes)
- In the SAP menu of the SAP system under *Help® Release Notes* (only ABAP developments)



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