

PUBLIC

Installation Guide



Web Dispatcher on Windows

**For SAP Systems Based on SAP NetWeaver 7.0
(2004s)**

Target Audience

- Technology consultants
- System administrators

Document version: 1.20 – 09/03/2007

Document History



Caution

Before you start the implementation, make sure you have the latest version of this document. You can find the latest version on SAP Service Marketplace <http://service.sap.com/instguides>.

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

Version	Date	Description
1.00	4/11/2006	Initial version (SAP NetWeaver 2004s SR1)
1.10	12/4/2006	Updated version (SAP NetWeaver 2004s SR2)
1.20	3/9/2007	Updated version (Renaming SAP NetWeaver 2004s as SAP NetWeaver 7.0)

Table of Contents

<i>Chapter 1</i>	Introduction	<u>5</u>
1.1	Web Dispatcher	<u>5</u>
1.2	SAP Notes for the Installation	<u>6</u>
1.3	Information Available on SAP Service Marketplace	<u>7</u>
1.4	Naming Conventions	<u>7</u>
<i>Chapter 2</i>	Planning	<u>9</u>
2.1	Basic System Parameters	<u>9</u>
<i>Chapter 3</i>	Preparation	<u>11</u>
3.1	Hardware and Software Requirements	<u>11</u>
3.1.1	Running the Prerequisite Checker	<u>11</u>
3.1.2	Requirements for the Web Dispatcher	<u>12</u>
3.2	Checking the Windows File System	<u>13</u>
3.3	Reducing the Size of the File Cache	<u>14</u>
3.4	Granting User Rights for the Installation	<u>14</u>
3.5	Performing a Domain Installation Without Being a Domain Administrator	<u>16</u>
3.6	File Systems	<u>18</u>
3.7	Installing the Java Runtime Environment	<u>19</u>
3.8	Preparing the Installation DVDs	<u>20</u>
3.8.1	Required Installation DVDs	<u>20</u>
3.8.2	Downloading Installation DVDs from SAP Service Marketplace (Optional)	<u>20</u>
<i>Chapter 4</i>	Installation	<u>23</u>
4.1	Running SAPinst	<u>23</u>
4.2	Performing a Remote Installation with SAPinst (Optional)	<u>25</u>
4.3	Starting SAPinst GUI Separately (Optional)	<u>25</u>
4.4	Interrupted Installation with SAPinst	<u>27</u>
<i>Chapter 5</i>	Follow-Up Activities	<u>29</u>
5.1	Starting and Stopping the Web Dispatcher Instance	<u>29</u>
5.2	Logging on to the Web Dispatcher Management Console	<u>29</u>
5.3	Web Dispatcher Configuration	<u>30</u>
<i>Chapter 6</i>	Additional Information	<u>31</u>

6.1	Uninstalling the Web Dispatcher Using SAPinst	<u>31</u>
6.2	Troubleshooting with SAPinst	<u>31</u>

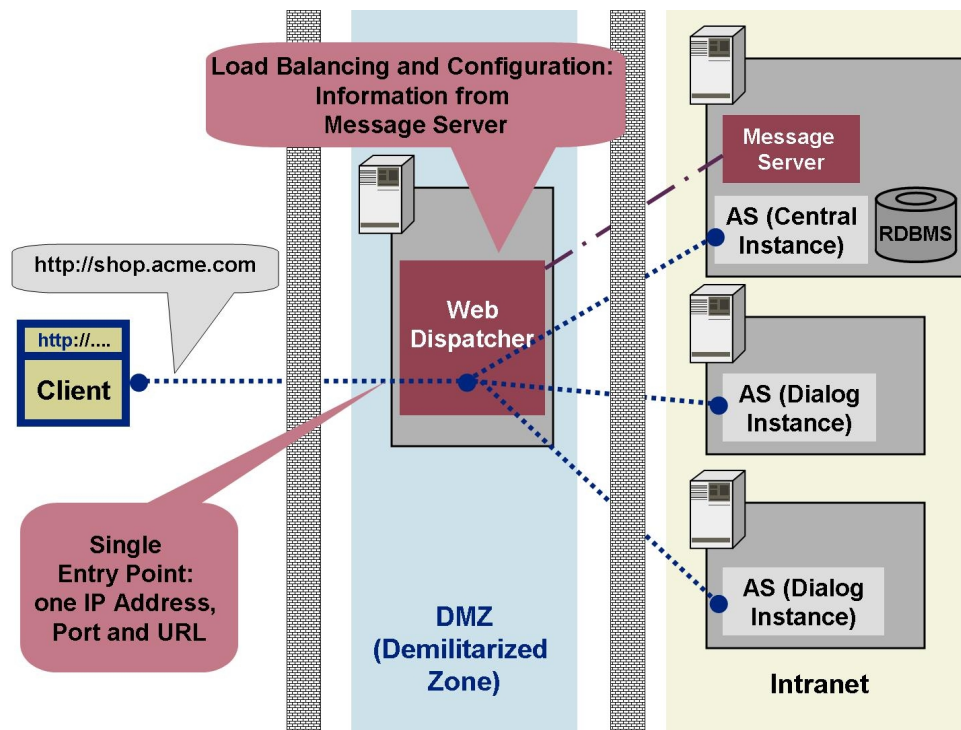
1 Introduction

This documentation describes how to install the Web Dispatcher for an already existing SAP system. The Web Dispatcher is recommended when you use an SAP system with several application servers for web applications.

1.1 Web Dispatcher

The Web dispatcher is situated between the Internet and your SAP system. It is the entry point for HTTP(s) requests into your system, which consists of one or more SAP NetWeaver application servers.

Figure 1:



As a "software web switch", the Web dispatcher can reject or accept connections. When it accepts a connection, it balances the load to ensure an even distribution across the servers.


You can use the Web dispatcher in ABAP+Java systems as well as in pure Java systems and in pure ABAP systems.

 Recommendation

The Web dispatcher is recommended when you use an SAP system with several SAP NetWeaver application servers for Web applications.

The Web dispatcher can run on the machine that is connected directly to the Internet and requires minimal configuration. You only have to enter the following data in the profile file:

- Port on which the HTTP(s) requests are to be received
Parameter `icm/server_port_<xx>`
- Host and HTTP port of the SAP message server
Parameters `rdisp/mshost` and `ms/http_port`)

 Example

If you need to be able to call the Web application externally — for example using the URL www.shop.acme.com — this host name must be mapped internally to the Web dispatcher, which then forwards the HTTP(S) request to a suitable application server.

More Information

 Recommendation

For more information see the Web Dispatcher documentation on the Help Portal:

▶ help.sap.com/nw2004s ▶ *SAP NetWeaver Library* ▶ *SAP NetWeaver by Key Capability* ▶ *Solution Life Cycle Management by Key Capability* ▶ *System Management* ▶ *SAP Web Dispatcher* ◀.

1.2 SAP Notes for the Installation

You **must** read the following SAP Notes **before** you start the installation. These SAP Notes contain 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 each SAP Note which you can find in the SAP Service Marketplace at service.sap.com/notes.

SAP Notes for the Installation

SAP Note Number	Title	Description
928952	Web Dispatcher Installation	Additional Information about Web Dispatcher installation.
855498	Installation Prerequisite Checker	Checking OS Dependencies for UNIX, Windows and IBM eServer iSeries

1.3 Information Available on SAP Service Marketplace

More information is available as follows on SAP Service Marketplace:

- SAP Help Portal:
help.sap.com
- Master Guide and installation guides for SAP NetWeaver 2004s:
service.sap.com/installNW2004s.
- Upgrade Master Guide and upgrade guides to SAP NetWeaver 2004s:
service.sap.com/upgradeNW2004s.
- Master Guide, installation guides and upgrade guides for ERP 2005:
service.sap.com/erp-inst.
- Master Guide, installation guides and upgrade guides for CRM 5.0:
service.sap.com/crm-inst.
- Master Guide, installation guides and upgrade guides for SRM 5.0:
service.sap.com/srm-inst.
- Master Guide, installation guides and upgrade guides for SCM 5.0:
service.sap.com/scm-inst.

1.4 Naming Conventions

In this documentation, the following naming conventions apply:

SAP system refers to *Web Dispatcher system*.

Variables

Variables	Description
<SAPSID>	SAP system ID in uppercase letters
<sapsid>	SAP system ID in lowercase letters
<DBSID>	Database ID in uppercase letters
<dbsid>	Database ID in lowercase letters
<host_name>	Name of the corresponding host
<INSTDIR>	Installation directory for the SAP system
<DVD_DIR>	Directory on which a DVD is mounted
<OS>	Operating system name within a path
<SCHEMA_ID>	Database schema ID

The following example shows how the variables are used:



Example

Log on as user `<sapsid>adm` and change to the directory `\usr\sap\<SAPSID>`.

If your SAP system ID is C11, log on as user `c11adm` and change to the directory `\usr\sap\C11`.

2 Planning



2.1 Basic System Parameters

The tables below list the basic system parameters that you need to determine before installing your SAP system. For all other SAP system parameters, use the F1 help in the SAPinst dialogs.



Note

In the column “Enter Your Values”, you write down the values that you plan to use.

Parameters	Description	Your Value
SAP System ID <SAPSID>	<p>The SAP System ID <SAPSID> identifies the whole SAP system.</p> <p> Caution Choose your SAP system ID carefully. You cannot change the SAP system ID after the installation.</p> <p>Make sure that your SAP system ID:</p> <ul style="list-style-type: none"> ■ Is unique throughout your organization ■ Consists of exactly three alphanumeric characters ■ Contains only uppercase letters ■ Has a letter for the first character ■ Does not include any of the following, which are reserved IDs: ADD ALL AND ANY ASC COM DBA END EPS FOR GID IBM INT KEY LOG MON NIX NOT OFF OMS RAW ROW SAP SET SGA SHG SID SQL SYS TMP UID USR VAR 	...
Instance Number	<p>Instance Number: Technical identifier for internal processes. Consists of a two-digit number from 00 to 97. The instance number must be unique on a host. That is, if more than one SAP instance is running on the same host, these instances must be assigned different numbers.</p> <p> Caution Do not use 43, 60, 89 for the instance number because:</p> <ul style="list-style-type: none"> ■ 43 is used by MSCS ■ 60 is used by iSCSI ■ 89 is used by Windows Terminal Server 	...

Parameters	Description	Your Value
OS Users	<p>SAPinst will create the following operating system users:</p> <ul style="list-style-type: none"> ■ If you perform a local installation <ul style="list-style-type: none"> ● SAP system administrator: <host_name>\<sapsid>adm ● SAP service user: <host_name>\SAPService<sapsid> ■ If you perform a domain installation <ul style="list-style-type: none"> ● SAP system administrator: <domain_name>\<sapsid>adm ● SAP service user: <domain_name>\SAPService<sapsid> <p>SAPinst prompts you to assign a password during the input phase of the installation.</p>	...
Message Server Host	The host on which the message server is located (profile parameter <code>rdisp/mshost</code>)	...
Message Server HTTP Port	HTTP port of the message server (profile parameter <code>ms/server_port_<xx></code>)	...
Password for the Internet Communication Management (ICM) user	<p>In order to use the web administration interface for the Internet Communication Manager (ICM) and SAP Web Dispatcher, an administration user <code>webadm</code> is created by SAPinst.</p> <p>You have to assign a password for this user.</p>	...

3 Preparation

3.1 Hardware and Software Requirements

3.1.1 Running the Prerequisite Checker

Before installing your SAP system, you have to check the hardware and software requirements for your operating system (OS) and the Web Dispatcher.

For that purpose you can run the *Prerequisite Checker* as follows:



Note

Always check **SAP Note [855498](#)** for the most recent updates to Prerequisite Checker.

■ **Standalone (optional):**

To check the hardware and software requirements of the host on which you want to install an SAP system at a later point in time, you can run the Prerequisite Checker standalone.

■ **Integrated in SAPinst (mandatory):**

The Prerequisite Checker is run automatically by SAPinst when installing your SAP system.

We recommend that you consult the requirements checklists tables, which provide the **minimum** requirements for SAP system installations. However, these tables do not take account of customer data. Depending on the amount of data involved, the requirements might change.



Recommendation

For a more precise sizing that reflects your particular system load, we strongly recommend you to use the *SAP Quick Sizer* available on SAP Service Marketplace at service.sap.com/sizing. You enter information about your planned system and the tool calculates the requirements.

Alternatively, you can contact your hardware vendor, who can analyze the load and calculate suitable hardware sizing.



Caution

For supported operating system and Java (JDK/JRE) releases, see the Product Availability Matrix on SAP Service Marketplace at service.sap.com/pam.

- Contact your OS vendor for the latest OS patches.

- Make sure that the host name meets the requirements listed in **SAP Note 611361** (for example, the host name must not be longer than 13 characters).
- Check your keyboard definitions.

**Note**

When installing your SAP system, SAPinst automatically starts the *Prerequisite Checker* and checks the hardware and software requirements in the background.

Procedure

1. You start *SAPinst* [page 23].
2. On the *Welcome* screen, choose ► <SAP System> ► *Additional Software Lifecycle Tasks* ► *Additional Preparation Tasks* ► *Prerequisites Check* ◀.
3. Enter the required parameters when prompted in the *SAPinst* dialogs.

**Note**

For more information about each parameter, position the cursor on the parameter field and choose **F1** in *SAPinst*.

When you have finished, the *Start Execution* screen appears summarizing all parameters you have entered. To change a parameter, choose *Back* and enter a new value.

4. To start the *Prerequisite Checker* choose *Start*.

Result

After the check has successfully completed, the *Prerequisite Check Results* screen appears displaying the results found.

If required, you can also check the results in file `prerequisite_checker_results.html`, which you can find in the installation directory.

3.1.2 Requirements for the Web Dispatcher

The Web Dispatcher host must meet the following requirements:

Requirement Type	Requirement
Hardware	<ul style="list-style-type: none"> ■ Suitable backup system ■ Minimum disk space: <ul style="list-style-type: none"> ● 1 GB (not including virtual memory) ● 4.3 GB of temporary disk space for every required installation DVD that you have to copy to a local hard disk. To check disk space: <ol style="list-style-type: none"> 1. Choose ► <i>Start</i> ► <i>Programs</i> ► <i>Administrative Tools</i> ► <i>Computer Management</i> ► <i>Disk Management</i>. ⏪ 2. Right-click the local drive and choose <i>Properties</i>. ■ Minimum RAM: 512 MB To check RAM, in the Windows Explorer choose ► <i>Help</i> ► <i>About Windows</i> ⏪. ■ Paging File Size (also known as virtual memory): 1 times RAM + 8 GB. For 64-bit systems, also see SAP Note 153641. If you want to install only a small system, contact your hardware partner for appropriate swap space values. To check paging file size: <ol style="list-style-type: none"> 1. Right-click <i>My Computer</i> and choose <i>Properties</i>. 2. Choose ► <i>Advanced</i> ► <i>Performance Options</i> ⏪. 3. If required, in section <i>Virtual Memory</i>, choose <i>Change</i>.
Software	<ul style="list-style-type: none"> ■ English international version of one of the following: <ul style="list-style-type: none"> ● Windows Server 2003 Standard Edition ● Windows Server 2003 Enterprise Edition ● Windows Server 2003 Datacenter Edition To check the Windows version: <ol style="list-style-type: none"> 1. Choose ► <i>Start</i> ► <i>Programs</i> ► <i>Accessories</i> ► <i>Command Prompt</i>. ⏪ 2. Enter the command <code>winvver</code>. ■ Suitable Windows Resource Kit is strongly recommended.

3.2 Checking the Windows File System

You need to check that you are using the Windows file system NTFS on hosts where you want to install the SAP system and database. NTFS supports full Windows security and long file names.



Note

You must use NTFS for an SAP system installation. Do not install the SAP directories on a FAT partition.

Procedure

1. Open the Windows Explorer.

2. Select the root directory.
3. Choose ► *File* ► *Properties* ► *General* ◀.
4. The system displays the type of file system in use.
5. Check that the file system is NTFS.

3.3 Reducing the Size of the File Cache

The Windows file cache directly competes with SAP programs for memory. Therefore, you should adjust the file cache as described below.

Procedure

1. Choose ► *Start* ► *Control Panel* ► *Network Connections* ► *Local Area Connections*. ◀
2. In the *Local Area Connection Status* dialog box, choose *Properties*.
3. In the *Local Area Connection Properties* dialog box, double-click *File and Printer Sharing for Microsoft Networks*.
4. Select *Maximize data throughput for network applications*.



Caution

If you cannot select *File and Printer Sharing for Microsoft Networks*, this option has not yet been installed. To install it, you need the Windows Server CDs.

5. To confirm your entries, choose *OK*.

3.4 Granting User Rights for the Installation

Although SAPinst automatically grants the rights required for the installation to the user account used for the installation, you have to check whether this account has the required authorization to perform the installation. The authorization required depends on whether you intend to perform a **domain** or **local** installation. If necessary, you have to ask the system administrator to grant the account the necessary authorization **before** you start the installation. If you attempt the installation with an account that has not the required authorization, the installation aborts.

This section informs you about the authorization required for a local and a domain installation.



Caution

Do not use the user <sapsid>adm for the installation of the SAP system.

Local Installation

For a local installation the account used for the installation needs to be a member of the local **Administrators** group of the machine involved. In a local installation, all Windows account information is stored locally on one host and is not visible to any other hosts in the system.

If the SAP system is to run on a **single** machine, you can perform a local installation.

For a local installation, you need to:

1. Check that the account used for the installation is a member of the local **Administrators** group.
2. If required, obtain these rights by asking the system administrator to enter the account as a member of the local **Administrators** group.

Domain Installation

For a domain installation the account used for the installation needs to be a member of the local **Administrators** and the domain **Admins** group of the domain involved, and all machines in the system must belong to the same domain. In a domain installation, the user information is stored centrally on the domain controller and is accessible to all hosts in the system.

If the system is to be distributed across **more than one** machine, SAP strongly recommends you to perform a domain installation to avoid authorization problems.



Caution

- If you install a distributed system as a local installation, this can lead to authorization problems for the operating system users `<sapsid>adm` and `SAPService<SAPSID>`. It can also lead to problems with the transport directory, which is usually shared by several SAP systems. Therefore, SAP does not support a local installation for a distributed system and recommends you to install a distributed system as a domain installation.

If you still want to perform a local installation for a distributed system, make sure that:

- You use the same password for the `<sapsid>adm` or the `SAPService<SAPSID>` user on all hosts. The password for the `<sapsid>adm` and `SAPService<SAPSID>` user can differ.
 - You use the same master password on all hosts.
 - All hosts belong to the same Windows work group.
- For performance and security reasons, SAP does not support an SAP system installation on a domain controller.
 - If for any reason, the account used for the installation is not a member of the domain **Admins** group, you can perform the installation with a domain user who is a member of the local **Administrators** group. However, the domain administrator has to prepare the system appropriately for you.

For more information, see *Performing a Domain Installation without being a Domain Administrator* [page 16].

For a domain installation, you need to:

1. Check that the account used for the installation is a member of the domain **Admins** group.

- If required, obtain these rights by asking the system administrator to enter the account as a member of the domain Admins group.

3.5 Performing a Domain Installation Without Being a Domain Administrator

If you are not granted domain administrator rights, you can perform the installation as a domain user who is a member of the Local Administrators group. In this case, the domain administrator must prepare the system for you appropriately, as described in this section.



Note

You normally perform a domain installation of the SAP system as a user with domain administrators rights, as described in *Granting User Rights for the Installation* [page 14].

The domain administrator has to:

- Create the new global group SAP_<SAPSID>_GlobalAdmin.
- Create the two new SAP system users <sapsid>adm and SAPService<SAPSID>.
- Add the users <sapsid>adm and SAPService<SAPSID> to the newly created group SAP_<SAPSID>_GlobalAdmin.

Prerequisites

You must perform this procedure as a domain administrator.

Creating the New Global Group SAP_<SAPSID>_GlobalAdmin

- Log on as domain administrator.
- To start the *Active Directory Users and Computers Console*, choose:
▶ Start ▶ Control Panel ▶ Administrative Tools ▶ Active Directory Users and Computers ◀



Note

If you cannot find *Active Directory Users and Computers*, start it as follows:

- Choose ▶ Start ▶ Run ◀ and enter **mmc**.
- Choose ▶ Console ▶ Add/Remove Snap-in... ▶ Add. ◀
- Select *Active Directory Users and Computers*.
- Choose ▶ Add ◀.
- Choose ▶ Close ▶ OK. ◀

- Right-click *Users* in *Tree*, and choose ▶ New ▶ Group. ◀
- Enter the following:
Group name: **SAP_<SAPSID>_GlobalAdmin**



Note

Enter the SAP_<SAPSID>_GlobalAdmin group exactly as specified in the correct uppercase and lowercase.

5. Select the following:
 - a) *Group scope*: Global
 - b) *Group type*: Security
6. Choose *OK*.

Creating the New SAP System Users <sapsid>adm and SAPService<SAPSID>

1. In *Active Directory Users and Computers Console*, right-click *Users in Tree* and choose:
 - ▶ *New* ▶ *User* ◀
2. Enter the following:



Note

Enter the <sapsid>adm and SAPService<SAPSID> user exactly as specified in the correct uppercase and lowercase.

Field	Input for <sapsid>adm	Input for SAPService<SAPSID>
First name:	None	None
Initials:	None	None
Last name:	None	None
Full name:	<sapsid>adm	SAPService<SAPSID>
User logon name:	<sapsid>adm	SAPService<SAPSID>

3. Choose *Next* and enter the following:
 - Password*: <password>
 - Confirm password*: <password>
4. Select *Password never expires*



Note

Make sure that no other options are selected.

5. Choose ▶ *Next* ▶ *Finish* ◀.

Adding the <sapsid>adm User to the SAP_<SAPSID>_GlobalAdmin Group

1. In the *Users* folder, double-click the newly created user account <sapsid>adm in the list on the right.
2. Choose ▶ *Member* ▶ *Add* ◀.
3. Select the new SAP_<SAPSID>_GlobalAdmin group and choose *Add* to add it to the list.



Note

By default, the user is also a member of the Domain Users group.

4. Choose *OK* twice.

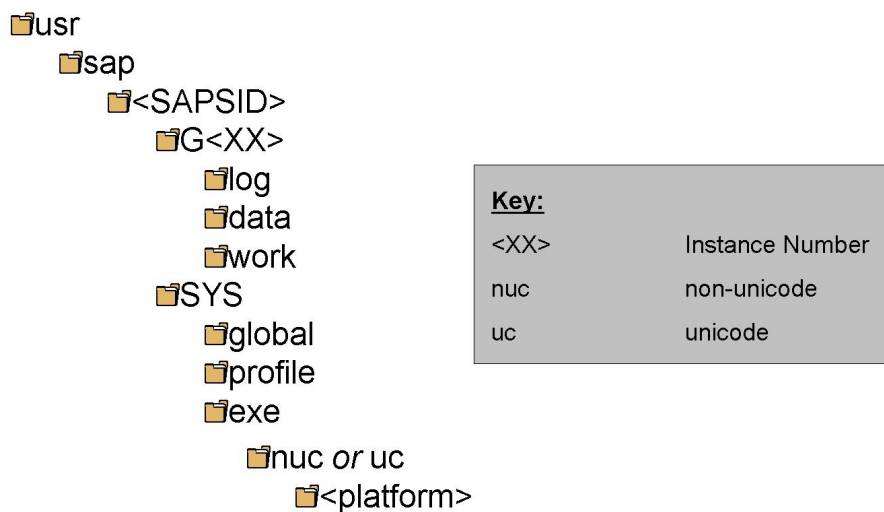
Adding the SAPService<SAPSID> User to the SAP_<SAPSID>_GlobalAdmin Group

1. In the *Users* folder, double-click the newly created user account *SAPService<SAPSID>* in the list on the right.
2. Choose **Member** ► *Add* ◀.
3. Select the new *SAP_<SAPSID>_GlobalAdmin* group.
4. Choose *Add* to add it to the list, and then *OK*.
5. Choose *OK* to close *SAPService<SAPSID> Properties*.
6. Close the *Active Directory Users and Computers Management Console*.

3.6 File Systems

SAPinst sets up the following file systems automatically during installation. For details see the following graphics and tables.

Figure 2:



The instance name (instance ID) of the Web Dispatcher instance is *W<Instance_Number>*, for example *W00*.

SAP File Systems in Detail



Note

The listed file system sizes are initial SAP requirements.
Depending on your operating system, you might also have to add space for administrative purposes.

File System Name	Description	Space Required
<Drive>:\usr\sap\<SAPSID>	The system will be installed under <Drive>:\usr\sap\<SAPSID>.	400 MB

3.7 Installing the Java Runtime Environment

You need to prepare your system for SAPInst. This includes the installation of a 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 25]. In this case, you need at least a JRE on the local host to start the SAPInst GUI there.

Procedure

1. Check the JRE versions that are released for SAP systems in the Product Availability Matrix (PAM):
 - a) Go to <https://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 and about how to obtain it, see **SAP Note 709140**.

2. Make sure a valid JRE version is installed, as follows:
 - If JRE is not already installed

Since JRE is not part of the SAP shipment, you need to download and install it. JRE is part of JDK (Java Development Kit).
 - If JRE is already installed

Check the installed version of JRE by entering:

```
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.

3.8 Preparing the Installation DVDs

3.8.1 Required Installation DVDs

You need the following installation DVDs for the Web Dispatcher installation:

Short Name of Required DVD	Full Label of Required DVD
Installation Master DVD	SAP NetWeaver 2004s SR2 Installation Master
Kernel DVD	SAP NETWEAVER 2004S SR2 Kernel (DVD), according to operating system



Note

Normally you obtain the installation DVDs as part of the installation package you received from SAP. However, you can also *download installation DVDs from SAP Service Marketplace* [page 20].

More Information

You can find a complete list of all media shipped with SAP NetWeaver 2004s in the document *Media List for SAP NetWeaver 2004s* on SAP Service Marketplace at ► service.sap.com/installNW2004s ► Installation ◀.

3.8.2 Downloading Installation DVDs from SAP Service Marketplace (Optional)

You normally obtain the installation DVDs as part of the installation package from SAP.

However, you can also download installation DVDs from SAP Service Marketplace at:

► <https://service.sap.com/swdc> ► Downloads ► Installations and Upgrades ► Entry by Application Group ► <your solution> ► <release of your solution> ► <your operating system> ► <your database> ◀.

If you download installation DVDs, note that DVDs might be split into several files. In this case, you have to reassemble the required files after the download.

Prerequisites

To extract the downloaded SAR files make sure that you use the latest SAPCAR version, which you can find on SAP Service Marketplace at <https://service.sap.com/swdc>. You need at least SAPCAR

700 or SAPCAR 640 with patch level 4 or higher because older versions of SAPCAR can no longer unpack current SAR files. For more information, see [SAP Note 212876](#).

Procedure

1. Create a download directory on the host on which you want to run SAPinst.
2. Identify all download objects that belong to one installation DVD according to one or both of the following:

- Material number

All download objects that are part of an installation DVD have the same material number and an individual sequence number:

`<material_number>_<sequence_number>`



Example

51031387_1

51031387_2

...

- Title

All objects that are part of an installation DVD have the same title, such as `<solution><DVD_name><OS>` or `<database>RDBMS<OS>` for RDBMS DVDs.

3. Download the objects to the download directory.
4. Extract the individual download objects using SAPCAR, starting with the lowest sequence number – for example 51031387_1, then 51031387_2, and so on.

During the download SAPCAR sets up the structure of the installation DVD.



Note

SAPCAR asks if you want to replace existing files, for example LABELIDX.ASC. Always accept with Yes.

This page is intentionally left blank.

4 Installation

4.1 Running SAPinst

You have to install the Web Dispatcher using the SAPinst tool.
Here you find information how to start and run SAPinst on your installation host.

Prerequisites

- You are logged on as a user with the required rights and privileges to install the SAPinst tool and the SAP system. For more information, see *Granting User Rights for the Installation* [page 14].
- When you start SAPinst, SAPinst GUI and the GUI server also start. SAPinst GUI connects to the GUI server with a secure SSL connection, and the GUI server connects to SAPinst.
- SAPinst normally creates the installation directory `sapinst_instdir`, where it keeps its log files, and which is located directly in the `Program Files` directory. If SAPinst is not able to create `sapinst_instdir` there, it tries to create `sapinst_instdir` in the directory defined by the environment variable `TEMP`.



Recommendation

We recommend that you keep all installation directories until the system is completely and correctly installed.

- SAPinst creates a subdirectory for each installation service called `<sapinst_instdir>\<installation_service>`, which is located in `%ProgramFiles%\sapinst_instdir`.
- The SAPinst Self-Extractor extracts the executables to a temporary directory (`TEMP`, `TMP`, `TMPDIR`, or `SystemRoot`). These executables are deleted after SAPinst has stopped running. Directories called `sapinst_exe.xxxxxx.xxxx` sometimes remain in the temporary directory. You can safely delete them.
The temporary directory also contains the SAPinst Self-Extractor log file `dev_selfex.out`, which might be useful if an error occurs.



Caution

If SAPinst cannot find a temporary directory, the installation terminates with the error `FC0-00058`.

- If you want to terminate SAPinst and the SAPinst Self-Extractor, choose one of the following options:

- Right-click the icon for the SAPinst output window located in the Windows tray and choose *Exit*.
 - Click the icon for the SAPinst output window located in the Windows tray and choose **File** ► *Exit* ◀.
- You need at least 50 MB of free space in the installation directory. In addition, you need 60-200 MB free space for the SAPinst executables.

Procedure

1. Insert the *Installation Master DVD* into your DVD drive or mount it locally.
2. Start SAPinst from the SAP Installation Master DVD by double-clicking `sapinst.exe` from the following path:

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



Note

- During the installation, the default ports 21200 and 21212 are used for communication between SAPinst, GUI server, and SAPinst GUI. SAPinst uses port 21200 to communicate with the GUI server. The GUI server uses port 21212 to communicate with SAPinst GUI. You get an error message if one of these ports is already in use by another service.

In this case, open a command prompt and change to the required directory as follows:

`<DVD drive>:\IM_WINDOWS_<platform>`

Enter the following command in a single line:

`sapinst.exe SAPINST_DIALOG_PORT=<free_port_number_sapinst_gui_to_gui_server>
 GUISEVER_DIALOG_PORT=<free_port_number_gui_server_to_sapinst_gui>`

- For a list of all available SAPinst properties, enter the following command:

`sapinst -p.`

3. On the *Welcome* screen, choose **►** *<your SAP system solution>* ► *Standalone Engines* ► *Web Dispatcher* ► *Web Dispatcher Installation* ◀
4. Follow the instructions in the SAPinst dialogs and enter the required parameters.



Note

For more information about the input parameters, position the cursor in the field of the respective parameter and press **F1**.

After you have entered all requested input parameters, SAPinst displays the *Parameter Summary* screen. This screen shows both the parameters that you entered and those that SAPinst set by default.

5. If required, change the displayed parameters as follows:
 - a) Select the section for the parameters you want to change.
 - b) Choose *Revise*.
SAPinst displays input screens for the selected parameters.
 - c) Enter the new values for the parameters.

6. After you have entered all required input information, SAPinst starts the installation and displays the progress of the installation. If the installation was successful, the screen *Finished installation successfully* is displayed.

4.2 Performing a Remote Installation with SAPinst (Optional)

You use this procedure to install the Web Dispatcher 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 control the installation with SAPinst GUI.

Prerequisites

- You *have installed the Java Runtime Environment* [page 19].
- 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. Enter the following commands:

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

For more information, see *Running SAPinst* [page 23].

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 25].

4.3 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 installation while it is still running, you can start SAPinst GUI separately.

- You want to *perform a remote installation* [page 25].

If SAPinst GUI runs on a **different** host from SAPinst and the GUI server, you have to start SAPinst GUI separately.

Prerequisites

You have *installed the Java Runtime Environment* [page 19] on the host on which you want to start SAPinst GUI.

Starting SAPinst GUI on a Windows Platform

1. Log on as a member of the local administrators group.
2. Insert the SAP Installation Master 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:
`startinstgui.bat`
SAPinst GUI uses the local host as default.
 - If SAPinst and the GUI server runs on a different host from SAPinst GUI (remote installation), enter the following command:
`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 the local host as default. 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 name of the host on which 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`.

Starting SAPinst GUI on a UNIX Platform

1. Log on as user root.



Caution

Make sure that the root user has not set any environment variables for a different SAP system or database.

2. Mount your installation DVD.



Note

Mount the DVD locally. We do **not** recommend that you use Network File System (NFS).

3. To change to the mount directory enter the following command:

```
cd <Installation_Master_DVD>/IM_<OS>
```

4. Start the 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.sh
```

SAPinst GUI uses as default the local host.

- If SAPinst and the GUI server run on a different host from SAPinst GUI (remote installation), enter the following command **with** additional parameters:

```
./startInstGui.sh -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 the local host as default. SAPinst GUI starts and tries to connect to the GUI server and SAPinst. As SAPinst and GUI server are running on another host, SAPinst GUI cannot connect and the *SAP Installation GUI Connection* dialog appears. In this case, enter the name of host on which 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.sh -h`.

4.4 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, <code>log_01_Oct_2003_13_47_56</code>).
<i>Continue old installation</i>	SAPInst continues the interrupted installation from the point of failure.

5 Follow-Up Activities

5.1 Starting and Stopping the Web Dispatcher Instance

You have to check that you can start and stop the Web Dispatcher instance after the installation using the SAP Microsoft Management Console (SAP MMC).

Procedure

1. Log on to the Web Dispatcher host as user `<sapsid>adm`.
2. Start the SAP MMC on the SAP system host by choosing **Start ▶ Programs ▶ SAP Management Console**.
3. Right-click the icon of the Web Dispatcher system under the *SAP systems* node and choose *Start* or *Stop*.

5.2 Logging on to the Web Dispatcher Management Console

You have to log on to the Web Dispatcher Management Console to check the following:

- The Web Dispatcher was installed successfully.
- The connection to the message server host works properly.

Procedure

1. Open a web browser.
2. Enter the following URL:
http://<web_dispatcher_host>:<web_dispatcher_port>/sap/admin
If you did not enter a specific port number, `<web_dispatcher_port>` is by default `81<instance_number>`.
3. Log on as user `webadm` with the password that you entered during the input phase of the installation.

Result

The SAP Web Dispatcher Monitor screen appears.

5.3 Web Dispatcher Configuration

After installing the Web Dispatcher you have to configure and operate it.

You find all important information in the SAP Web Dispatcher documentation on the Help Portal.

See ► help.sap.com/nw2004s ► *SAP NetWeaver Library* ► *SAP NetWeaver by Key Capability* ► *Solution Lifecycle Management by Key Capability* ► *System Management* ► *SAP Web Dispatcher* ► *Management of the SAP Web Dispatcher* ► *Operating the SAP Web Dispatcher* ◀

6 Additional Information

6.1 Uninstalling the Web Dispatcher Using SAPinst

The following procedure describes how to uninstall the Web Dispatcher using SAPinst.

Procedure

1. Start *SAPinst* [page 23].
2. On the Welcome screen, choose ► *Additional Software Life-Cycle Tasks* ► *Uninstall* ◀.
3. Follow the instructions in the SAPinst input dialogs.

6.2 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 27].
 - 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*.

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 <User Name>”.
▶ ▶ ◀	Arrows separating the parts of a navigation path, for example, menu options
Example	Emphasized words or expressions
Example	Words or characters that you enter in the system exactly as they appear in the documentation
<u>Example</u>	Textual cross-references to an internet address, for example, http://www.sap.com
/example	Quicklinks added to the internet address of a homepage to enable quick access to specific content on the Web
<u>123456</u>	Hyperlink to an SAP Note, for example, SAP Note 123456
<i>Example</i>	<ul style="list-style-type: none"> ■ Words or characters quoted from the screen. These include field labels, screen titles, pushbutton labels, menu names, and menu options. ■ Cross-references to other documentation or published works
Example	<ul style="list-style-type: none"> ■ Output on the screen following a user action, for example, messages ■ Source code or syntax quoted directly from a program ■ File and directory names and their paths, names of variables and parameters, and names of installation, upgrade, and database tools
EXAMPLE	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, SELECT and INCLUDE
EXAMPLE	Keys on the keyboard

© Copyright 2007 SAP AG. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Microsoft, Windows, Outlook, and PowerPoint are registered trademarks of Microsoft Corporation.

IBM, DB2, DB2 Universal Database, OS/2, Parallel Sysplex, MVS/ESA, AIX, S/390, AS/400, OS/390, OS/400, iSeries, pSeries, xSeries, zSeries, System i, System i5, System p, System p5, System x, System z, System z9, z/OS, AFP, Intelligent Miner, WebSphere, Netfinity, Tivoli, Informix, i5/OS, POWER, POWER5, POWER5+, OpenPower and PowerPC are trademarks or registered trademarks of IBM Corporation.

Adobe, the Adobe logo, Acrobat, PostScript, and Reader are either trademarks or registered trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Oracle is a registered trademark of Oracle Corporation.

UNIX, X/Open, OSF/1, and Motif are registered trademarks of the Open Group.

Citrix, ICA, Program Neighborhood, MetaFrame, WinFrame, VideoFrame, and MultiWin are trademarks or registered trademarks of Citrix Systems, Inc.

HTML, XML, XHTML and W3C are trademarks or registered trademarks of W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.

Java is a registered trademark of Sun Microsystems, Inc.

JavaScript is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.

MaxDB is a trademark of MySQL AB, Sweden.

SAP, R/3, mySAP, mySAP.com, xApps, xApp, SAP NetWeaver, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

These materials are subject to change without notice. These materials are provided by SAP AG and its affiliated companies ("SAP Group") for informational purposes only, without representation or warranty of any kind, and SAP Group shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP Group products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

This document was created using stylesheet 2006-12-31 (V5.1beta [= 6.0 for E3]) and XSLT processor SAXON 6.5.2 from Michael Kay (<http://saxon.sf.net/>), XSLT version 1.

Disclaimer

Some components of this product are based on Java™. Any code change in these components may cause unpredictable and severe malfunctions and is therefore expressly prohibited, as is any decompilation of these components.

Any Java™ Source Code delivered with this product is only to be used by SAP's Support Services and may not be modified or altered in any way.

Legal Software Terms

Terms for Included Open Source Software

This SAP software contains also the third party open source software products listed below. Please note that for these third party products the following special terms and conditions shall apply.

1. This software was developed using ANTLR.
 2. **SAP License Agreement for STLport**
SAP License Agreement for STLPort between
SAP Aktiengesellschaft
Systems, Applications, Products in Data Processing
Neurottstrasse 16
69190 Walldorf, Germany
(hereinafter: SAP)
and
you
(hereinafter: Customer)
 - a) Subject Matter of the Agreement
 - A) SAP grants Customer a non-exclusive, non-transferrable, royalty-free license to use the STLport.org C++ library (STLport) and its documentation without fee.
 - B) By downloading, using, or copying STLport or any portion thereof Customer agrees to abide by the intellectual property laws, and to all of the terms and conditions of this Agreement.
 - C) The Customer may distribute binaries compiled with STLport (whether original or modified) without any royalties or restrictions.
 - D) Customer shall maintain the following copyright and permissions notices on STLport sources and its documentation unchanged: **Copyright 2001 SAP AG**
 - E) The Customer may distribute original or modified STLport sources, provided that:
 - The conditions indicated in the above permissions notice are met;
 - The following copyright notices are retained when present, and conditions provided in accompanying permission notices are met:
Copyright 1994 Hewlett-Packard Company
Copyright 1996,97 Silicon Graphics Computer Systems Inc.
Copyright 1997 Moscow Center for SPARC Technology.
Copyright 1999,2000 Boris Fomitchev
Copyright 2001 SAP AG
- Permission to use, copy, modify, distribute and sell this software and its documentation for any purposes is hereby granted without fee, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation. Hewlett-Packard Company makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.
- Permission to use, copy, modify, distribute and sell this software and its documentation for any purpose is hereby granted without fee, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation. Silicon Graphics makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.
- Permission to use, copy, modify, distribute and sell this software and its documentation for any purposes is hereby granted without fee, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation. Moscow Center for SPARC

makes no representations about the suitability of this software for any purpose. It is provided “as is” without express or implied warranty.

Boris Fomitchev makes no representations about the suitability of this software for any purpose. This material is provided "as is", with absolutely no warranty expressed or implied. Any use is at your own risk. Permission to use or copy this software for any purpose is hereby granted without fee, provided the above notices are retained on all copies. Permission to modify the code and to distribute modified code is granted, provided the above notices are retained, and a notice that the code was modified is included with the above copyright notice.

Permission to use, copy, modify, distribute and sell this software and its documentation for any purposes is hereby granted without fee, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation. SAP makes no representations about the suitability of this software for any purpose. It is provided with a limited warranty and liability as set forth in the License Agreement distributed with this copy. SAP offers this liability and warranty obligations only towards its customers and only referring to its modifications.

b) Support and Maintenance

SAP does not provide software maintenance for the STLport. Software maintenance of the STLport therefore shall be not included.

All other services shall be charged according to the rates for services quoted in the SAP List of Prices and Conditions and shall be subject to a separate contract.

c) Exclusion of warranty

As the STLport is transferred to the Customer on a loan basis and free of charge, SAP cannot guarantee that the STLport is error-free, without material defects or suitable for a specific application under third-party rights. Technical data, sales brochures, advertising text and quality descriptions produced by SAP do not indicate any assurance of particular attributes.

d) Limited Liability

A) Irrespective of the legal reasons, SAP shall only be liable for damage, including unauthorized operation, if this (i) can be compensated under the Product Liability Act or (ii) if caused due to gross negligence or intent by SAP or (iii) if based on the failure of a guaranteed attribute.

B) If SAP is liable for gross negligence or intent caused by employees who are neither agents or managerial employees of SAP, the total liability for such damage and a maximum limit on the scope of any such damage shall depend on the extent to which its occurrence ought to have anticipated by SAP when concluding the contract, due to the circumstances known to it at that point in time representing a typical transfer of the software.

C) In the case of Art. 4.2 above, SAP shall not be liable for indirect damage, consequential damage caused by a defect or lost profit.

D) SAP and the Customer agree that the typical foreseeable extent of damage shall under no circumstances exceed EUR 5,000.

E) The Customer shall take adequate measures for the protection of data and programs, in particular by making backup copies at the minimum intervals recommended by SAP. SAP shall not be liable for the loss of data and its recovery, notwithstanding the other limitations of the present Art. 4 if this loss could have been avoided by observing this obligation.

F) The exclusion or the limitation of claims in accordance with the present Art. 4 includes claims against employees or agents of SAP.

3. **Adobe Document Services**

Adobe, the Adobe logo, Acrobat, PostScript, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and /or other countries. For information on Third Party software delivered with Adobe document services and Adobe LiveCycle Designer, see **SAP Note [854621](#)**.

Documentation in the SAP Service Marketplace

You can find this document at the following address: <https://service.sap.com/instguides>

THE BEST-RUN BUSINESSES RUN SAP



SAP AG

Dietmar-Hopp-Allee 16
69190 Walldorf

Germany

T +49/18 05/34 34 34

F +49/18 05/34 34 20

www.sap.com