

## Support Package Stack Guide



# SAP NetWeaver™ '04

## Support Package Stack 12

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#### **Documentation on SAP Service Marketplace**

You can find this documentation at [service.sap.com/instguidesNW04](http://service.sap.com/instguidesNW04)

## Typographic Conventions

Type Style	Represents
<i>Example Text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options.  Cross-references to other documentation.
<b>Example text</b>	Emphasized words or phrases in body text, graphic titles, and table titles.
EXAMPLE TEXT	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example text	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
<b>Example text</b>	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

## Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Additional icons are used in [SAP Library \[page 8\]](#) documentation to help you identify different types of information at a glance. For more information, see *Help on Help* → *General Information Classes and Information Classes for Business Information Warehouse* on the first page of any version of the SAP Library.

## History of Changes

This documentation is regularly updated on SAP Service Marketplace at [service.sap.com/instguidesNW04](http://service.sap.com/instguidesNW04).



Make sure you have the latest version of this documentation by checking SAP Service Marketplace immediately before patching.

The following table provides an overview of the most important changes that were made in the latest versions:

<b>Guide Version</b>	<b>Important Changes</b>
1.00 (May 16, 2005)	First released version

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# 1 Overview

This documentation describes how to install **SAP NetWeaver '04 Support Package Stacks** (SP Stacks).



Information about timelines of the SP Stacks can be found on SAP Service Marketplace at [service.sap.com/NetWeaver](http://service.sap.com/NetWeaver) → *SAP NetWeaver '04* → *Time Schedule*.

The documentation consists of the following parts:

- Overview (this section)

In this section, you get important information about using this documentation and about Support Packages in general. Also, you get an overview of SAP NetWeaver and how you download Support Packages from SAP Service Marketplace.

- [Applying Support Packages to SAP NetWeaver '04 Scenarios \[page 16\]](#)

This section provides the up-to-date information about applying Support Packages for each SAP NetWeaver scenario.

- [Generic Components \[page 50\]](#)

Generic SAP components (for example, SAP Kernel) are contained in multiple SAP NetWeaver scenarios. This section gives information about applying Support Packages to these generic components.

- [Patch Tools \[page 71\]](#)

This section gives you information about the tools that you use to apply Support Packages.

## 1.1 Before You Start

### 1.1.1 Updated Document Versions

The Support Package Guide is regularly updated on SAP Service Marketplace at [service.sap.com/instguidesNW04](http://service.sap.com/instguidesNW04) → *Operations*.



Make sure you have the latest version of the Support Package Guide by checking SAP Service Marketplace immediately before starting to import Support Packages.

### 1.1.2 SAP Notes

You **must** read **SAP Note 755490** before you read this documentation as it may contain corrections and further information about the Support Package Stack installation.

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

## 1.1.3 Naming Conventions

In this documentation, the following naming conventions apply:

### Variables

Variables	Description
<SAPSID> <sapsid>	SAP system ID
<INSTDIR>	Installation directory for the SAP system
<host>	Host name
<instance-no>	Instance number of a system instance
<database>	Name of database
<sapinst_instmdir>	Installation directory for the SAP installation tool SAPinst
<sp_directory>	Temporary directory to which the archives of a Support Package are downloaded or copied
<OS>	Operating system
<OS_DIR>	OS-dependent directory consisting of a folder for the platform and a subfolder for your OS version. For example, if your operating system is Sun OS 64bit, <OS_DIR> stands for /UNIX/SUNOS64.
<SP_Stack>	Number of Support Package Stack
<SP>	Number of the Support Package
<PL>	Number of SP Patch Level
<REL>	Number of release
<LOCALE>	Language definition (for example, the German locale is <code>_de</code> )

## 1.1.4 Accessing the SAP Library

For more information about SAP NetWeaver, access the SAP Library from any of the following:

- ❑ **SAP Help Portal** at [help.sap.com/nw04](http://help.sap.com/nw04)

Select the required language.



The SAP Help Portal contains the latest version of the SAP Library. Therefore, we recommend that you use this channel to access the SAP Library.

- ❑ An **SAP system** if you have installed the online documentation:

Choose *Help* → *SAP Library*.

The browser starts.



- ❑ The help files on the online documentation CDs or DVDs

If you want to view the help files in HTMLHelp format from the online documentation CDs or DVDs, you need a PC running Microsoft Windows to install the HTMLHelp Viewer.

## 1.2 Scenarios of SAP NetWeaver '04

The SAP NetWeaver technology platform is a comprehensive integration and application platform that helps reduce the total cost of ownership (TCO). It facilitates the integration and alignment of people, information, and business processes across organizational and technological boundaries. SAP NetWeaver easily integrates information and applications from virtually any source. It interoperates with and can be extended using the primary market technologies – Microsoft .NET, Sun's J2EE, and IBM WebSphere. SAP NetWeaver is the technical foundation for mySAP™ Business Suite and SAP® xApps™ solutions and ensures maximum reliability, security, and scalability, so mission-critical business processes run smoothly. And by providing preconfigured business content, it helps reduce the need for custom integration and lowers TCO.



For more information about the SAP NetWeaver scenarios, see the *Master Guide – SAP NetWeaver* available on SAP Service Marketplace at [service.sap.com/instguidesNW04](http://service.sap.com/instguidesNW04) → *Planning*.

SAP NetWeaver consists of the following technical scenarios:

- ❑ *SAP Business Information Warehouse* (SAP BW 3.5)

SAP Business Information Warehouse is a robust and scalable data warehouse. The reporting and analysis tools within SAP Business Information Warehouse offer a quick and easy way to gain access to the information you need.

- ❑ *SAP Business Intelligence Information Broadcasting* (SAP BI Information Broadcasting)

Information broadcasting with SAP Business Information Warehouse (SAP BW) enables users to broadcast and schedule reports as needed. SAP Enterprise Portal serves as the single point of entry for the end user to access the complete business intelligence (BI) information portfolio.

- ❑ *SAP Enterprise Portal* (SAP EP 6.0 on Web AS 6.40)

As one of the building blocks of SAP NetWeaver, SAP Enterprise Portal provides key capabilities such as Portal Infrastructure, Knowledge Management and Collaboration, all completely based on open technology and standards, which make SAP NetWeaver a powerful integration and application platform.

SAP EP Integration adds business value because it enables seamless deployment of BI Applications.

- ❑ *SAP Exchange Infrastructure* (SAP XI 3.0)

SAP XI Integration adds business value because SAP XI can be used as a single point to channel information exchange between various systems.

- ❑ *SAP Mobile Infrastructure* (SAP MI 2.5)

SAP MI is a technology solution for SAP NetWeaver on which *mySAP Mobile Business* applications are based. With *SAP MI*, however, you can also make applications mobile that are not SAP-based.

### 1.3 Types of Support Packages

❑ *SAP Knowledge Warehouse (SAP KW 7.0)*

SAP KW delivers the technical infrastructure you need to set up and manage your own enterprise-specific knowledge base in the areas of documentation, training, and manuals. For project teams and end users, SAP KW streamlines training and business processes, helping you reduce your costs. In addition, the possibility to reuse, supplement and continually update SAP content offers great savings potential.

❑ *SAP NetWeaver Development Environment*

SAP NetWeaver Development Environment is used to develop both ABAP and Java applications. It is based on the SAP NetWeaver component SAP Web Application Server (SAP Web AS).

## 1.3 Types of Support Packages

The following table explains the terms used in the Support Package process for SAP NetWeaver:

Correction Process	Description
Standard correction process	<p><b>Support Package Stack</b></p> <ul style="list-style-type: none"> <li>• <b>Description:</b> The Support Package Stack is a list of ABAP and Java Support Packages for all software components (SC) included in SAP NetWeaver. It is used to bring each Software Component of SAP NetWeaver to a defined SP level.</li> <li>• <b>Version numbers:</b> Support Package Stacks have a release number and a Stack number, for example, SAP NetWeaver '04 Support Package Stack 11.</li> <li>• <b>Delivery:</b> Currently, there is no single physical archive format associated with a Support Package Stack. Also, there is no single installation tool that can be used to apply a Support Package Stack as an entity. Therefore, multiple tools (such as Support Package Manager, SDM, or SAPinst) are used to apply the single Support Packages included in a Support Package Stack. The single Support Packages are delivered in multiple formats (such as SAR, SCA, or SDA files).</li> </ul>
	<p><b>ABAP Kernel Patches</b></p> <ul style="list-style-type: none"> <li>• <b>Version numbers:</b> ABAP Kernel Patches have a release number and a patch number. The patch number is increased for every correction.</li> <li>• <b>Delivery:</b> ABAP Kernel Patches are delivered using SAR files. They are installed by extracting these SAR files to the kernel directory using SAPCAR.</li> </ul>

## 1.3 Types of Support Packages

	<p><b>ABAP Support Package</b></p> <ul style="list-style-type: none"> <li>• <b>Description:</b> ABAP Support Packages contain quality improvements for the SAP system or make necessary adjustments, for example, due to legal changes. The objects affected are replaced in your system.</li> <li>• <b>Dependencies:</b> In contrast to Java Support Packages, ABAP Support Packages are non-cumulative. Therefore, ABAP Support Packages have to be installed in the correct order, one after the other. You cannot skip any Support Packages.</li> <li>• <b>Delivery:</b> ABAP Support Packages are delivered using SAR files. They are installed using the Support Package Manager (SPAM).</li> </ul>
	<p><b>Java Support Package</b></p> <ul style="list-style-type: none"> <li>• <b>Description:</b> Java Support Packages are used to ship correction levels of Software Components. They correspond to the ABAP Support Packages.</li> <li>• <b>Dependencies:</b> Java Support Packages contain the complete software involved. Within one release, you can therefore skip Java Support Packages with a lower SP number (if no other instructions are given, for example, in the corresponding SAP Notes).</li> <li>• <b>Delivery:</b> Java Support Packages are normally delivered using Software Component Archives (SCAs).</li> </ul>
<p><b>Emergency correction process</b></p>	<p><b>SAP Note Correction (ABAP)</b></p> <ul style="list-style-type: none"> <li>• <b>Description:</b> SAP Note Corrections contain single ABAP fixes.</li> <li>• <b>Delivery:</b> SAP Note Corrections are delivered using SAP Notes. If required, you apply them using SAP Note Assistant.</li> </ul>
	<p><b>Java Support Package Patch</b></p> <ul style="list-style-type: none"> <li>• <b>Description:</b> A Java Support Package patch contains corrections for the Java Software Components. Java Support Package patches are normally created and released on demand. They correspond to a SAP Note that describes the same correction.</li> <li>• <b>Dependencies:</b> Java Support Package patches always contain a full version of a Software Component.</li> </ul>

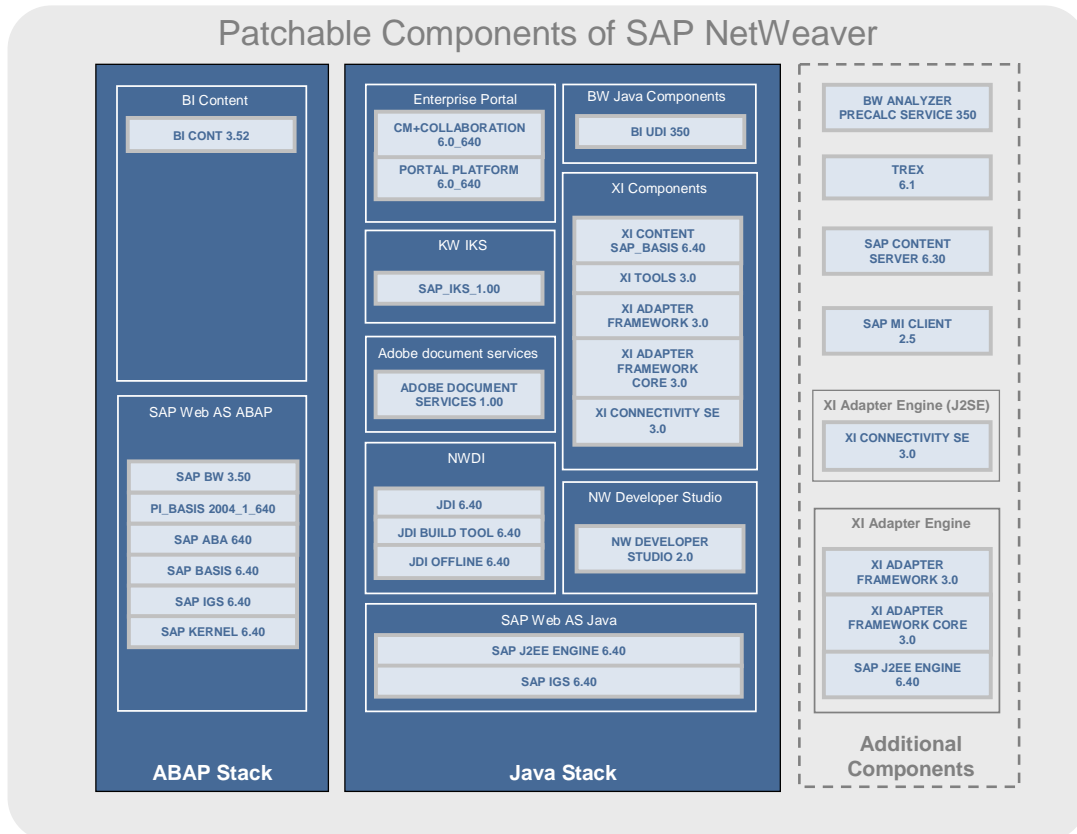
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### 1.3 Types of Support Packages

	<p><b>Java Single Patch</b></p> <ul style="list-style-type: none"><li>• <b>Description:</b> A full version of a single Development Component. Java single patches correspond to a SAP Note that describes the corresponding prerequisites and dependencies.</li><li>• <b>Dependencies:</b> Java single patches contain a full version of a single Development Component.</li><li>• <b>Delivery:</b> Java single patches are delivered using Software Deployment Archives (SDAs).</li></ul>
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## 1.4 Patchable Components of SAP NetWeaver

The following figure shows all components of SAP NetWeaver '04 for which Support Packages are available:



## 1.5 Determining Current Component Versions

The following table illustrates how to determine the currently installed component versions:

Scenario	Instance	SAP Tools	OS Tools
BW	BW	Transaction: <i>SPAM</i> → <i>Package level</i>	
	BW UDI	<i>http://&lt;host&gt;:5&lt;instance-no&gt;00/sap/monitoring/ComponentInfo</i> , under "Software Components"	
	BW Precalculation		<i>Windows Control Panel</i> → <i>Add or Remove Programs</i>

## 1.5 Determining Current Component Versions

EP	Portal Platform and CM+C	<i>http://&lt;host&gt;:5&lt;instance-no&gt;00/irj/portal</i> → <i>System Administration</i> → <i>Support</i> → <i>Version</i>	
XI	XI	<i>http://&lt;host&gt;:5&lt;instance-no&gt;00/sap/monitoring/ComponentInfo</i> , under "Software Components"	
	XI PCK		
	XI Adapter Engine (J2EE)	<i>http://&lt;host&gt;:5&lt;instance-no&gt;00/monitor?action=about</i> , under "Information"	
	XI Adapter Engine (J2SE)		
SLD Content	<i>http://&lt;host&gt;:5&lt;instance-no&gt;00/sld/admin/details.jsp?view=data</i> , under "CR Content Version"		
MI	MI Client	Mobile Infrastructure Client: <i>Info</i> → <i>Buildversion</i>	
KW	KW IKS	<i>http://&lt;host&gt;:5&lt;instance-no&gt;00/sap/monitoring/ComponentInfo</i> , under "Software Components"	
	KW Content Server	<i>http://&lt;host&gt;:&lt;contentserverport&gt;/ContentServer/ContentServer.dll?serverInfo</i>	
SAP Web AS ABAP	Kernel	Menu: <i>System</i> → <i>Status</i> → <i>SHIFT + F5</i>	
	ABAP Server	Transaction: <i>SPAM</i> → <i>Package level</i>	
SAP Web AS Java	Java Server	<i>http://&lt;host&gt;:5&lt;instance-no&gt;00/sap/monitoring/ComponentInfo</i> , under "Software Components"	
	NWDI		
	IGS Server	<i>http://&lt;host&gt;:4&lt;instance-no&gt;80/</i> , under "Version"	
	NetWeaver Developer Studio	Menu: <i>Help</i> → <i>About SAP NetWeaver Developer Studio</i>	
Adobe	Adobe Document Service	<i>http://&lt;host&gt;:5&lt;instance-no&gt;00/sap/monitoring/ComponentInfo</i> , under "Software Components"	
TREX	TREX 6.1		<i>&lt;TREX_DIR&gt;/doc/TREXVersion.html</i>

## 1.6 Downloading Support Packages

1. Access the SAP Software Distribution Center on SAP Service Marketplace at [service.sap.com/sp-stacks](http://service.sap.com/sp-stacks) and click *SAP NetWeaver '04* in the table of SP Stacks.

The first download step for the SAP NetWeaver '04 SP Stacks is displayed.

2. The download of an SP Stack is divided into three steps. Proceed as follows:
  - a. Choose the target and source SP Stack, check the option *Restrict to Technical Usages* and select the required technical usage types according to the systems you want to update.



- The Target Stack indicates the wanted SP Stack level.
- The Source Stack indicates the current SP Stack level.



If you do not want to restrict the Support Package Stack to particular usage types, simply uncheck the option *Restrict to Technical Usages*.

Click *Next Step*. The second download step is displayed.

- b. Select operating systems and database systems from the *ConfigTree* according to your systems and usage types that you want to update.



- You must always select the options *#OS independent* and *#DB independent*.
- Some usage types require SAP Kernel for Unicode. Choose the UNICODE versions for the SAP Kernel according to the particular usage types selected in the previous step.



For example, the usage type XI works only with SAP Kernel Unicode.

Click *Next Step*. The third download step is displayed.

- c. All required Support Packages are listed accordingly to the selections in the previous steps. Click *Add to Download Basket*.
3. Download your download basket.

## 2 Applying Support Packages in SAP NetWeaver '04 Scenarios

This section gives information about the steps you have to perform to apply Support Packages into the components in your SAP NetWeaver scenarios.

### 2.1 SAP Business Information Warehouse

#### Involved Components

Instance	Component to Be Updated	Name of SP on SAP Service Marketplace	Tool Used to Apply SP
BW	SAP BASIS 6.40	SAPKB640<SP>	SPAM
	SAP ABA 6.40	SAPKA640<SP>	SPAM
	PI_BASIS 2004_1_640	SAPKIPYI68	SPAM
	SAP BW 3.50	SAPKW350<SP>	SPAM
	SAP KERNEL 6.40	SAPEXE.SAR SAPEXEDB.SAR	None
	BI CONT 3.5	SAPKIBIEP<SP> (Minimum version SAPKIBEP1)	SPAM
	SAP IGS 6.40	IGS_8.SAR	SAPCAR
BW UDI (optional)	SAP WEB AS Java 6.40 (SAP J2EE ENGINE 6.40)  OS-independent parts of Web AS Java OS-dependent SAPinst OS-dependent CTRL Files OS-dependent part of Web AS	J2EERT<SP>_<PL>.SAR SAPINST<SP>_<PL>.SAR CTRL<DB><SP>_<PL>.SAR J2EERTOS<SP>_<PL>.SAR	SAPinst
	BI UDI 350	BIMMR<SP>_<PL>.SCA BIUDI<SP>_<PL>.SCA	SDM
BW Precalculation (optional)	BW ANALYZER PRECALC SERVICE 350	BWAPSERV<SP>_<PL>.ZIP	ZIP tool (for example, WinZip), Windows Installer
TREX (optional)	TREX 6.1	TREX61SP<SP>_<PL>.SAR	SAPinst
Front End GUIs	Depending on the SAP GUI you are using: <ul style="list-style-type: none"> <li>SAP GUI FOR WINDOWS 6.20</li> <li>SAP GUI FOR WINDOWS 6.40</li> <li>SAP GUI FOR JAVA 6.30</li> </ul>		




## Preparation

✓	<b>Action</b>
	Read SAP Note <b>763340</b> ( <i>SAPBWNews BW SP12 NW'04 Stack 12</i> ).
	<a href="#">Download [page 15]</a> the required Support Packages listed above under <i>Involved Components</i> .

## Procedure

### BW





✓	<b>Action</b>
	Patch the <a href="#">SAP Kernel [page 50]</a> .
	Import the Support Package for SAP BASIS 6.40 using the <a href="#">Support Package Manager [page 72]</a> .
	Import the Support Packages for SAP ABA 6.40, SAP BW 3.50 and BI CONT 3.5 by using the <a href="#">Support Package Manager [page 72]</a> .   You can import one of the Support Packages available on SAP Service Marketplace for the software component BI CONT as required. The minimum version is BI CONT 3.52 SP1 ( <i>SAPKIBIEP1</i> ).
	Import the Support Package for PI_BASIS 2004_1_640 using the <a href="#">Support Package Manager [page 72]</a> .
	Patch <a href="#">SAP IGS [page 68]</a> .

### BW UDI


The following steps are only necessary if you use BW UDI:

✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> .
	If you are using Java dialog instances, also apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> on these Java dialog instances.

## 2.1 SAP Business Information Warehouse

	<p><b>Java cluster environment only</b></p> <p>For the SAP J2EE Engine on which BW UDI is running:</p> <ul style="list-style-type: none"> <li>• Make sure that only one dispatcher node and only one server node are running on the central instance of the J2EE Engine when the patch procedure starts.</li> <li>• Make sure that all Java dialog instances are stopped.</li> </ul> <p></p> <p>Do not restart Java dialog instances while you are patching applications running on the central instance of the J2EE Engine. This may corrupt the installation of this application.</p> <p>For more information, see <a href="#">Patching in a Java Cluster Environment [page 65]</a> → Procedure.</p>
	<p></p> <p>The following step is only required if you patch from SAP NetWeaver '04 SP Stack 06 or below.</p> <p>Use SDM to undeploy the component <code>bi/mmr/webToolsEAP</code>.</p>
	<p>Deploy the following archives using the SDM, see <a href="#">SDM deployment [page 72]</a>:</p> <ul style="list-style-type: none"> <li>• BIMMR&lt;SP&gt;_&lt;PL&gt; .SCA</li> <li>• BIUDI&lt;SP&gt;_&lt;PL&gt; .SCA</li> </ul> <p></p> <ul style="list-style-type: none"> <li>• The first time you patch to SP Stack 12, you must stop all connectors (<i>BI JDBC Connector, BI ODBO Connector, BI SAP Query Connector and BI XMLA Connector</i>) by using <i>Visual Administrator</i> → <i>Server</i> → <i>Services</i> → <i>Connector Container</i> before deploying <i>BI UDI</i>.</li> <li>• If you are specifically patching from SP Stack 10 or SP Stack 11 to SP Stack 12, you must undeploy the old <i>XMLA Connector</i> using SDM and stop the other connectors before deploying <i>BI UDI</i>. The names of the appropriate development components displayed in the SDM are <code>com.sap.ip.bi.sdk.dac.connector.xmla</code> and <code>com.sap.ip.bi.sdk.dac.connector.xmla_proxy</code>.</li> </ul> <p></p> <p>If you have been using the Web service of the <i>BI XMLA Connector</i> of the versions SP Stack 10 and 11 in your custom program code, you must change the JNDI name <code>SDK_XMLA_TICKET</code> with which you reference the service to <code>SDK_XMLA</code>.</p>
	<p><b>Java cluster environment only</b></p> <p>If BW UDI is the last application running on this J2EE Engine you are updating, you can re-enable all stopped/disabled server nodes now. Then restart the central instance and all Java dialog instances.</p>

#### BW Precalculation

✓	Action
	<p>Stop the BW Precalculation Service:</p> <ol style="list-style-type: none"> <li>1. Start Microsoft Windows Computer Management by choosing the following in the Windows Start menu: <i>Start → Settings → Control Panel → Administrative Tools → Computer Management.</i></li> <li>2. In Microsoft Windows Computer Management, choose <i>Services and Applications → Services.</i></li> <li>3. Click <i>SAP BW Precalculation Service</i> with the secondary mouse button and choose <i>Stop.</i></li> </ol>
	<p>Uninstall the BW Precalculation Service from your client by choosing the following from the Microsoft Start menu: <i>Start → Settings → Control Panel → Add or Remove Programs.</i></p>
	<p>Extract the downloaded <code>BWAPSERV&lt;SP&gt;_&lt;PL&gt;.ZIP</code> into a temporary directory.</p>
	<p>Install the BW Precalculation Service by using the extracted <code>Setup.exe</code>.</p> <p>For more information, see the <i>Installation Guide – SAP Business Warehouse</i>, section <i>SAP BW Precalculation Service 3500.0.0.1 → Installing the SAP BW Precalculation Service.</i></p> <div style="text-align: center;">  </div> <p style="background-color: #e0e0e0; padding: 5px;">As the configuration of your BW Precalculation Service is still stored in the Windows registry, you do not have to configure the BW Precalculation Service again after you have reinstalled it.</p>
	<p>Perform an installation check.</p> <p>For more information, see the <i>Installation Guide – SAP Business Warehouse</i>, section <i>Installation Check.</i></p>

#### TREX

✓	Action
	<p>Apply the Support Package for <a href="#">Search and Classification (TREX) [page 52]</a>.</p>

#### Front End GUIs

✓	Action
	<p>Apply the Support Package for <a href="#">SAP GUI [page 51]</a>.</p>

## 2.2 BI Information Broadcasting

After the installation of the BI Information Broadcasting scenario, apply the Support Packages for [SAP Business Information Warehouse \[page 16\]](#) and [SAP Enterprise Portal \[page 21\]](#).



You have to apply both Support Packages at the same time.

## 2.3 SAP Enterprise Portal

This section describes how to apply SP Stacks both to the Portal Platform and to Knowledge Management and Collaboration:

1. Apply the Support Package Stack for [Portal Platform \[page 22\]](#).
2. If Content Management and Collaboration is installed in your system:
  - a. Apply the Support Package Stack for [Content Management and Collaboration \[page 26\]](#).



If your installation includes Knowledge Management and Collaboration (KMC), then you must update KMC to the same Support Package Stack as the Portal Platform directly after updating the Portal Platform.

- b. Apply the Support Package Stack for [Search and Classification \(TREX\) \[page 52\]](#).

### Involved Components


Instance	Component to be Updated	Name of SP on SAP Service Marketplace	Tool Used to Apply SP
EP <i>(Content Management and Collaboration is optional)</i>	SAP WEB AS Java 6.40 (SAP J2EE ENGINE 6.40)  OS-indepent parts of Web AS Java OS-dependent SAPinst OS-dependent CTRL Files OS-dependent part of Web AS	J2EERT<SP>_<PL> . SAR SAPINST<SP>_<PL> . SAR CTRL<DB><SP>_<PL> . SAR J2EERTOS<SP>_<PL> . SAR	SAPinst
	PORTAL PLATFORM 6.0_640  OS-dependent CTRL Files OS-independent Tools OS-independent part of EP OS-dependent SAPinst	EP6CTRL<SP>_<PL> . SAR EP6TOOLS<SP>_<PL> . SAR EP6PORTAL<SP>_<PL> . SAR SAPINST<SP>_<PL> . SAR	SAPinst
	CM+COLLABORATION 6.0_640  OS-indepent part of CM+C OS-dependent CTRL Files OS-independent Tools OS-dependent SAPinst	Patching only required if KMC is used.  EP6KMC<SP>_<PL> . SAR EP6CTRL<SP>_<PL> . SAR EP6TOOLS<SP>_<PL> . SAR SAPINST<SP>_<PL> . SAR	SAPinst
TREX <i>(optional)</i>	TREX 6.1	TREX61SP<SP>_<PL> . SAR	SAPinst


## 2.3.1 Portal Platform

### Preparation



✓	<b>Action</b>
	Read <b>SAP Note 832966</b> ( <i>Central Note – SAP Stack 12 – EP 6.0 on Web AS 6.40 with NW '04 SP</i> ).
	<a href="#">Download [page 15]</a> the required Support Packages listed above under <i>Involved Components</i> .
	<a href="#">Prepare the system for SAPinst GUI [page 75]</a> .
	<p><b>Systems migrated from EP 5.0 only</b></p> <p>Migration log files are deleted when applying the SP Stack. SAP recommends that you back up these files now in case they are needed for future reference. These files are located at:</p> <ul style="list-style-type: none"> <li>• &lt;irjRootFolder&gt;\portalapps\com.sap.portal.upgrader.upgrade.rservice\&lt;last created folder&gt;</li> <li>• &lt;install directory&gt;\cluster\server\log\default_trace; the latest &lt;...&gt;_output.log and &lt;...&gt;_error.log files</li> </ul>

### Procedure

✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> .
	If you are using Java dialog instances, also apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> to these Java dialog instances.
	<p><b>Java cluster environment only</b></p> <p>For the SAP J2EE Engine on which the Portal Platform is running:</p> <ul style="list-style-type: none"> <li>• Make sure that only one dispatcher node and only one server node are running on the central instance of the J2EE Engine when the update starts.</li> <li>• Make sure that all Java dialog instances are stopped.</li> </ul> <p style="text-align: center;"></p> <p style="text-align: center;">Do not restart Java dialog instances while you are updating applications running on the central instance of the J2EE Engine. This may corrupt the installation of this application.</p> <p>For more information, see <a href="#">Patching in a Java Cluster Environment [page 65]</a> → Procedure.</p>

	<p>Extract the Portal Platform archives with <a href="#">SAPCAR [page 71]</a>.</p>  <p>Make sure that you extract all the files into the same folder.</p>
	<p>Log on to your host:</p> <ul style="list-style-type: none"><li>• On UNIX, as a user with root permissions</li><li>• On Windows, as a user who is a member of the local administration group</li></ul>
	<p>Start SAPInst:</p> <ul style="list-style-type: none"><li>• On UNIX, see <a href="#">Running SAPInst on UNIX [page 76]</a></li><li>• On Windows, see <a href="#">Running SAPInst on Windows [page 77]</a></li></ul> <p>For information about how to work with the SAPInst GUI, see <a href="#">SAPInst GUI Handling [page 77]</a>.</p>
	<p>Enter the details for the SAP Web AS Java system on which SAP Enterprise Portal is installed which you want to update.</p> <p>On the <i>Updating the Portal Platform</i> screen, go to <i>SAP System and J2EE Administrator Account</i> and perform the following:</p> <ol style="list-style-type: none"><li>1. From the <i>SAP Web AS Java System</i> drop-down list, choose the system to be updated.</li><li>2. In the <i>J2EE Administrator Account</i> details area, enter the name and password of the user with Administrator privileges on the SAP Web AS Java system where you are installing the portal. These are the details for the <i>SAP J2EE Administrator Account</i>, defined during SAP Web AS Java installation.</li></ol> <p>The default is as follows:</p> <ul style="list-style-type: none"><li>• For Java installations, the default user is <code>Administrator</code> with a password of a minimum length of five characters.</li><li>• For Add-In installations, the standard user name is <code>j2ee_admin</code>.</li></ul> <ol style="list-style-type: none"><li>3. Choose <i>Next</i>.</li></ol>

## 2.3 SAP Enterprise Portal

	<p><b>Windows only</b></p> <p>On the <i>Updating the Portal Platform</i> screen, go to <i>SAP System Administrator Account</i> and enter the details for the system administrator of the SAP Web AS system:</p> <ol style="list-style-type: none"> <li>1. In the SAP System Administrator details, enter the name and password of the OS user of the SAP Web AS system that hosts the portal. These are the details for the <b>SAP System Administrator Account</b>, defined during SAP Web AS Java installation.</li> <li>2. If this user is a Windows domain user, enter the Windows domain name. Otherwise, enter the local machine host name.</li> <li>3. Choose <i>Next</i>.</li> </ol>
	<p><b>SAP Web AS ABAP+Java (Add-In) installations only</b></p> <p>On the <i>Updating the Portal Platform</i> screen, go to <i>SAP WebAS ABAP System Connection</i> and enter the details for connecting to the ABAP instance of the SAP Web AS system using the DDIC user:</p> <ol style="list-style-type: none"> <li>1. In the <i>SAP System Client</i> field, enter the client number of the DDIC user of this SAP Web AS system.</li> <li>2. In the <i>Password</i> field, enter the password of user DDIC in the specified client.</li> <li>3. Choose <i>Next</i>.</li> </ol>
	<p>On the <i>Start Installation</i> screen, review your input. Choose <i>Start</i> to start the installation, or <i>Back</i> to change the values.</p>
	<p>SAPinst starts the installation and displays the installation progress during the processing phase. If the installation is successful, the message <code>The installation finished successfully</code> appears.</p> <p></p> <ul style="list-style-type: none"> <li>• If you get the message <code>The deployment may require manual post processing</code>. See output of <code>callSDMviaSAPINST.log</code> file during the installation, click <i>OK</i> in the message and let the installation continue. When the installation is completed, restart the J2EE Engine.</li> <li>• <b>HP-UX only</b> If the installation stops with the error message <code>Error - not uploaded. Deploy Service returned</code>, restart the J2EE Engine and choose <i>Retry</i> to continue the installation.</li> </ul> <p></p> <p>When SAPinst last restarts the J2EE Engine, the portal will start the processing and upload of the new portal archives. Usually, it takes 15 to 90 minutes before the deployment is completed and the portal is launched, but this period of time strongly depends on the database and the host performance and therefore could be longer. Do not stop SAPinst or the J2EE Engine during this phase.</p>
	<p>Perform the steps listed under <i>Completing the EP Support Package Installation</i> below.</p>



## Completing the Portal Platform Support Package Installation

### Logging On to the Portal

To verify that the Support Package has been installed successfully, perform the following steps:

✓	Action
	<p><b>Java cluster environment only</b></p> <p>If the Portal Platform is the last application running on the J2EE Engine you are updating, you can re-enable all stopped/disabled server nodes now. Then restart the central instance and all Java dialog instances.</p>
	To verify that the Support Package has been installed successfully, enter the portal URL in a Web browser and log on to the portal.
	Verify that your portal content is available, and that you can perform administrative tasks.
	If you have not done so yet, you can now install Content Management and Collaboration. For more information, see the documentation <i>Installation Guide – SAP Enterprise Portal 6.0 on Web AS 6.40</i> available on SAP Service Marketplace at <a href="http://service.sap.com/instguidesNW04">service.sap.com/instguidesNW04</a> → <i>Installation</i> .



As of SAP NetWeaver Support Package Stack 10, you can uninstall the portal.

On UNIX, enter the following command to uninstall the portal:

- Portal running on SAP Web AS Java  

```
/usr/sap/<SAPSID>/JC<instance_number>/ \
portal_misc/uninstall/startUninstall.sh
```
- Portal running on SAP Web AS ABAP+Java  

```
/usr/sap/<SAPSID>/DVEBMGS<instance_number>/j2ee/
portal_misc/uninstall/startUninstall.sh
```

On Windows, enter the following command to uninstall the portal:

- Portal running on SAP Web AS Java  

```
<drive>\usr\sap\<SAPSID>\JC<instance_number>\j2ee\ \
portal_misc\uninstall\startUninstall.bat
```
- Portal running on SAP Web AS ABAP+Java  

```
<drive>\usr\sap\<SAPSID>\ DVEBMGS<instance_number> \
\j2ee\portal_misc\uninstall\startUninstall.bat
```

## 2.3.2 Content Management and Collaboration


### Prerequisites

✓	<b>Action</b>
	<p>Make sure that:</p> <ul style="list-style-type: none"> <li>• The <a href="#">Portal Platform [page 22]</a> has the version SAP NetWeaver '04 SP Stack 12.</li> <li>• Content Management and Collaboration has one of the versions higher than <b>SAP NetWeaver '04 SP Stack 05</b> (including <b>SAP NetWeaver '04 Service Release 1</b>).</li> </ul>


### Preparation

✓	<b>Action</b>
	Read <b>SAP Note 739263</b> ( <i>NW04 SPStack Installation: Content Management &amp; Collaboration</i> ).
	<a href="#">Download [page 15]</a> the required Support Packages listed above under <i>Involved Components</i> .
	<p><b>Windows only: Check the Windows Security Policies</b></p> <p>Access the Local Security Policy dialog by choosing <i>Windows Start menu → Programs → Administrative Tools → Local Security Policy</i></p> <p>Then choose <i>Local Policies → User Rights Assignments</i>.</p> <p>Make sure the following rights are assigned to the user who performs the SAPinst installation:</p> <ul style="list-style-type: none"> <li>• <i>Act as part of the operating system</i></li> <li>• <i>Increase quotas (Win 2000) or Adjust memory quotas for a process (Win 2003)</i></li> <li>• <i>Replace a process-level token</i></li> </ul> <p>To apply any changes, log off and then log on again.</p>
	<a href="#">Prepare the system for SAPinst GUI [page 75]</a> .

## Procedure

✓	Action
	<p><b>Java cluster environment only</b></p> <p>For the SAP J2EE Engine on which Content Management and Collaboration are running:</p> <ul style="list-style-type: none"> <li>• Make sure that only one dispatcher node and only one server node are running on the central instance of the J2EE Engine when the update starts.</li> <li>• Make sure that all Java dialog instances are stopped.</li> </ul> <div style="text-align: center;">  <p>Do not restart Java dialog instances while you are updating applications running on the central instance of the J2EE Engine. This may corrupt the installation of this application.</p> </div> <p>For more information, see <a href="#">Patching in a Java Cluster Environment [page 65]</a> → <i>Procedure</i>.</p>
	Extract the Content Management and Collaboration archives with <a href="#">SAPCAR [page 71]</a> .
	Log on to your host as a user who is a member of the local administration group.
	<p>Start SAPInst:</p> <ul style="list-style-type: none"> <li>• On UNIX, see <a href="#">Running SAPInst on UNIX [page 76]</a></li> <li>• On Windows, see <a href="#">Running SAPInst on Windows [page 77]</a></li> </ul> <p>For information about how to work with the SAPInst GUI, see <a href="#">SAPInst GUI Handling [page 77]</a>.</p>
	<p>Enter the details for the SAP Web AS Java on which the SAP Enterprise Portal is installed and where the Support Package will be applied. On the screen <i>Specifying the SAP Web AS Java System and J2EE Administrator Account</i>, do the following:</p> <ol style="list-style-type: none"> <li>1. From the <i>SAP Web AS Java System</i> drop-down list, choose the system where the Support Package will be applied.</li> <li>2. In the <i>Administrator</i> account details, enter the name and password of the user with Administrator privileges in the SAP Web AS Java system on which the portal is installed. The details for the <i>SAP J2EE Administrator Account</i> were defined during SAP Web AS Java installation.</li> </ol> <p>The default is as follows:</p> <ul style="list-style-type: none"> <li>• User <code>Administrator</code> with a password with a minimum length of five characters.</li> <li>• For Add-In installations, the default is <code>j2ee_admin</code>.</li> </ul>
	Choose <i>Next</i> .

## 2.3 SAP Enterprise Portal

	<p><b>Windows only</b></p> <p>On the screen <i>Specifying SAP System Administrator Account</i>, enter the details for the system administrator of the SAP Web AS system:</p> <ol style="list-style-type: none"> <li>1. Enter the name and password of the OS user of the SAP Web AS system that hosts the portal. The details for the <i>SAP System Administrator Account</i> were defined during SAP Web AS Java installation.</li> <li>2. If the user is a Windows domain user, enter the Windows domain name. Otherwise, enter the host name of the local machine.</li> <li>3. Choose <i>Next</i>.</li> </ol>
	<p>On the <i>Start Installation</i> screen, review your input. Choose <i>Start</i> to begin the installation, or <i>Back</i> to change the values.</p>
	<p>SAPinst starts the installation and displays the installation progress during the processing phase. If the installation is successful, the message <i>The installation finished successfully</i> appears.</p> <p></p> <p>If SAPinst fails during installation, see <a href="#">Handling the CD Browser Dialog [page 81]</a>.</p> <p>After the message <i>The installation finished successfully</i> appears, the deployment process is still running. It may take from 15 - 90 minutes before the deployment is completed and the portal is ready to be launched.</p>

## Post-Installation Tasks

✓	<p><b>Action</b></p>
	<p><b>Java cluster environment only</b></p> <p>If Content Management and Collaboration are the last applications running on this J2EE Engine you are patching, you can re-enable all stopped/disabled server nodes now. Then restart the central instance and all Java dialog instances.</p>
	<p><b>Groupware Connectivity only</b></p> <p>If you have configured groupware connectivity for the portal, perform the actions described in <b>SAP Note 788151</b>.</p>
	<p><b>Knowledge Management</b></p> <p>If you upgrade from SAP Netweaver '04 <b>SP Stack 05</b> directly to <b>SP Stack 12</b>, you need to set permissions to protect iViews from illegal access via URLs. For more information, see <a href="http://service.sap.com/instguidesnw04">service.sap.com/instguidesnw04</a> → <i>Operations</i> → <i>Cross-NW</i> → <i>Support Package Stack Guide – SAP NetWeaver '04 Support Package Stack 09</i>, page 34.</p>

**Collaboration**

- Delete the file `discussiongroups_favorites.oth`. To find the file, log on to the portal and choose *Content Administration* → *KM Content* → *etc* → *oth*
- If you upgrade from SAP NetWeaver '04 **SP Stack 10** and lower directly to **SP Stack 12**, you need to manually import a new template for rooms. For instructions on how to proceed, see [service.sap.com/instguidesnw04](http://service.sap.com/instguidesnw04) → *Operations* → *Cross-NW* → *Support Package Stack guide – SAP NetWeaver '04 Support Package Stack 11*, page 27.

## 2.4 SAP Exchange Infrastructure

### Involved Components



The following instances must have the same Support Package level (the patch level Support Packages can be different):

- XI Server
  - SAP BASIS 6.40
  - XI ADAPTER FRAMEWORK Core 3.0
  - XI ADAPTER FRAMEWORK 3.0
  - XI TOOLS 3.0
- XI Adapter Engine
  - XI ADAPTER FRAMEWORK CORE 3.0
  - XI ADAPTER FRAMEWORK 3.0
- XI PCK
  - XI ADAPTER FRAMEWORK CORE 3.0
  - XI ADAPTER FRAMEWORK 3.0
  - XI PCK 3.0

Instance	Component to be Updated	Name of SP on SAP Service Marketplace	Tool Used to Apply SP
XI	SAP BASIS 6.40	SAPKB640<SP>	SPAM
	SAP ABA 6.40	Patching not required	Patching not required
	PI_BASIS 2004_1_640	Patching not required	Patching not required
	SAP BW 3.50	Patching not required	Patching not required
	SAP KERNEL 6.40 Unicode	SAPEXE . SAR SAPEXEDB . SAR	None
	SAP WEB AS Java 6.40 (SAP J2EE ENGINE 6.40) OS-indepedent parts of Web AS Java OS-dependent SAPinst OS-dependent CTRL Files OS-dependent part of Web AS	J2EERT<SP>_<PL> . SAR SAPINST<SP>_<PL> . SAR CTRL<DB><SP>_<PL> . SAR J2EERTOS<SP>_<PL> . SAR	SAPinst
	XI ADAPTER FRAMEWORK 3.0	SAPXIAF<SP>_<PL> . SCA	SDM
	XI ADAPTER FRAMEWORK CORE 3.0	SAPXIAFC<SP>_<PL> . SCA	SDM
	XI CONTENT SAP_BASIS 6.40	SAPBASIS<SP>_0 . ZIP	File Upload
XI TOOLS 3.0	SAPXITool<SP>_<PL> . SCA	SDM	

Instance	Component to be Updated	Name of SP on SAP Service Marketplace	Tool Used to Apply SP
XI Adapter Engine <i>(optional)</i>	SAP WEB AS Java 6.40 (SAP J2EE ENGINE 6.40)  OS-indepedent parts of Web AS Java OS-dependent SAPInst OS-dependent CTRL Files OS-dependent part of Web AS	J2EERT<SP>_<PL>.SAR SAPINST<SP>_<PL>.SAR CTRL<DB><SP>_<PL>.SAR J2EERTOS<SP>_<PL>.SAR	SAPInst
	XI ADAPTER FRAMEWORK 3.0	SAPXIAF<SP>_<PL>.SCA	SDM
	XI ADAPTER FRAMEWORK CORE 3.0	SAPXIAFC<SP>_<PL>.SCA	SDM
XI Adapter Engine J2SE <i>(optional)</i>	XI CONNECTIVITY SE 3.0	SAPXICONS<SP>_<PL>.SCA	ZIP tool (for example, WinZip)
XI PCK <i>(optional)</i>	SAP WEB AS Java 6.40 (SAP J2EE ENGINE 6.40)  OS-indepedent parts of Web AS Java OS-dependent SAPInst OS-dependent CTRL Files OS-dependent part of Web AS	J2EERT<SP>_<PL>.SAR SAPINST<SP>_<PL>.SAR CTRL<DB><SP>_<PL>.SAR J2EERTOS<SP>_<PL>.SAR	SAPInst
	XI ADAPTER FRAMEWORK 3.0	SAPXIAF<SP>_<PL>.SCA	SDM
	XI ADAPTER FRAMEWORK CORE 3.0	SAPXIAFC<SP>_<PL>.SCA	SDM
	XI PCK 3.0	SAPXIPCK<SP>_<PL>.SCA	SDM
System Landscape Directory (SLD)	SAP KERNEL 6.40	SAPEXE.SAR SAPEXEDB.SAR	None
	SAP BASIS 6.40	SAPKB640<SP>	SPAM
	SAP WEB AS Java 6.40 (SAP J2EE ENGINE 6.40)  OS-indepedent parts of Web AS Java OS-dependent SAPInst OS-dependent CTRL Files OS-dependent part of Web AS	J2EERT<SP>_<PL>.SAR SAPINST<SP>_<PL>.SAR CTRL<DB><SP>_<PL>.SAR J2EERTOS<SP>_<PL>.SAR	SAPInst
	Update SLD content		File Upload
Front End GUIs	Depending on the SAP GUI you are using: <ul style="list-style-type: none"> <li>• SAP GUI FOR WINDOWS 6.20</li> <li>• SAP GUI FOR WINDOWS 6.40</li> <li>• SAP GUI FOR JAVA 6.30</li> </ul>		



## 2.4 SAP Exchange Infrastructure

## Preparation

✓	<b>Action</b>
	Back up your systems. See the <i>Technical Operations Manual</i> available in the <a href="#">SAP Library [page 8]</a> under <i>SAP NetWeaver → SAP NetWeaver Technical Operations Manual</i> .
	<a href="#">Download [page 15]</a> the required Support Packages listed above under <i>Involved Components</i> .

## Procedure


### XI

✓	<b>Action</b>
	Patch the <a href="#">SAP Kernel [page 50]</a> .
	Import the Support Package for SAP BASIS 6.40 by using the <a href="#">Support Package Manager [page 72]</a> .
	Apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> .
	If you are using Java dialog instances, also apply the Support Packages for <a href="#">SAP Web AS Java 6.40 [page 56]</a> on these Java dialog instances.
	<p><b>Java cluster environment only</b></p> <p>For the SAP J2EE Engine on which the XI is running, make sure that all Java dialog instances are stopped.</p> <p style="text-align: center;"></p> <p style="text-align: center;">Do not restart Java dialog instances while you are updating applications running on the central instance of the J2EE Engine. This may corrupt the installation of this application.</p>
	<p>Deploy the following archives using the SDM, see <a href="#">SDM deployment [page 72]</a>:</p> <ul style="list-style-type: none"> <li>• SAPXIAFC&lt;SP&gt;_&lt;PL&gt; .SCA (<i>XI Adapter Framework Core 3.0</i>)</li> <li>• SAPXIAF&lt;SP&gt;_&lt;PL&gt; .SCA (<i>XI Adapter Framework 3.0</i>)</li> <li>• SAPXITool&lt;SP&gt;_&lt;PL&gt; .SCA (<i>XI Tools 3.0</i>)</li> </ul> <p style="text-align: center;"></p> <p>In addition to the status information displayed in the SDM GUI Remote Client, the file</p> <pre style="background-color: #f0f0f0; padding: 5px;">/usr/sap/&lt;SAPSID&gt;/&lt;instance&gt;/SDM/program/log/ \   sdmlog&lt;date&gt;.log</pre> <p>contains information about the detailed deployment status, including information about the changes in J2EE Engine status.</p>





	<p>Import the appropriate content for the SAP XI Support Package release from the archive  <code>SAPBASIS&lt;SP&gt;_&lt;PL&gt;.ZIP (XI Content SAP_BASIS 6.40)</code>. Proceed as follows:</p> <ol style="list-style-type: none"> <li>1. Unpack the archive using a ZIP tool of your choice.</li> <li>2. Copy the export file (with file extension <code>tpz</code>) into the import directory <code>&lt;INSTDIR&gt;/&lt;SAPSID&gt;/SYS/global/xi/repository_server/import</code>.</li> <li>3. Start the Integration Builder for the design time.</li> <li>4. Import the XI content by choosing <code>Tools → Import design objects...</code></li> </ol> <p>For more information, see <b>SAP Note 705541</b>.</p>
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### System Landscape Directory


✓	<b>Action</b>
	Patch the <a href="#">SAP Kernel [page 50]</a> .
	Import the Support Package for SAP BASIS 6.40 by using the <a href="#">Support Package Manager [page 72]</a> .
	Apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> .
	If you are using Java dialog instances, also apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> on these Java dialog instances.
	<p><b>Java cluster environment only:</b></p> <p>For the SAP J2EE Engine on which the SLD is running, make sure that all Java dialog instances are stopped.</p> <div style="text-align: center;">  </div> <p style="background-color: #f0f0f0; padding: 5px; text-align: center;">Do not restart Java dialog instances while you are updating applications running on the central instance of the J2EE Engine. This may corrupt the installation of this application.</p>
	<p>Update the System Landscape Directory (SLD) data:</p> <ul style="list-style-type: none"> <li>• Ensure that the data model inside the SLD meets the requirement of the new SP level by entering the URL <code>http://&lt;host&gt;:5&lt;instance-no&gt;00/sld/admin</code>. A warning appears on this page if the data model is outdated. In this case, you should import the current data model by following the URL <code>http://&lt;host&gt;:5&lt;instance-no&gt;00/sld/admin/import.jsp</code> and choose <code>Import Model &lt;VERSION&gt; from Server</code>.</li> <li>• SAP regularly delivers updates for the SAP MASTER DATA FOR SLD. To check the availability and download the most current CR content delta, choose <code>service.sap.com/patches → Enter by Application Group → Additional Components → SAP MASTER DATA FOR SLD → SAP MASTER DATA FOR SLD 1.0 → #OS independent</code>. Then import the downloaded update on the page <code>http://&lt;host&gt;:5&lt;instance-no&gt;00/sld/admin/import.jsp</code>.</li> </ul>


## 2.4 SAP Exchange Infrastructure

## XI Adapter Engine

✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> .
	If you are using Java dialog instances, also apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> on these Java dialog instances.
	<p><b>Java cluster environment only</b></p> <p>For the SAP J2EE Engine on which the XI Adapter Engine is running, make sure that all Java dialog instances are stopped.</p> <p style="text-align: center;"></p> <p style="background-color: #f0f0f0;">Do not restart Java dialog instances while you are updating applications running on the central instance of the J2EE Engine. This may corrupt the installation of this application.</p>
	<p>Deploy the following archives by using the SDM, see <a href="#">SDM deployment [page 72]</a>:</p> <ul style="list-style-type: none"> <li>• SAPXIAFC&lt;SP&gt;_&lt;PL&gt; .SCA (<i>XI Adapter Framework Core 3.0</i>)</li> <li>• SAPXIAF&lt;SP&gt;_&lt;PL&gt; .SCA (<i>XI Adapter Framework 3.0</i>)</li> </ul> <p style="text-align: center;"></p> <p style="background-color: #f0f0f0;">In addition to the status information displayed in the SDM GUI Remote Client, the file  <code>/usr/sap/&lt;SAPSID&gt;/&lt;instance&gt;/SDM/program/log/ \</code>  <code>sdmlog&lt;date&gt;.log</code> contains information about the detailed deployment status including information about the changes in J2EE Engine status.</p>

## XI PCK

✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> .
	If you are using Java dialog instances, also apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> on these Java dialog instances.
	<p><b>Java cluster environment only</b></p> <p>For the SAP J2EE Engine on which the XI PCK is running, make sure that all Java dialog instances are stopped.</p> <p style="text-align: center;"></p> <p style="background-color: #f0f0f0;">Do not restart Java dialog instances while you are updating applications running on the central instance of the J2EE Engine. This may corrupt the installation of this application.</p>

	<p>Deploy the following archives by using the SDM, see <a href="#">SDM deployment [page 72]</a>:</p> <ul style="list-style-type: none"> <li>• SAPXIAFC&lt;SP&gt;_&lt;PL&gt; .SCA (<i>XI Adapter Framework Core 3.0</i>)</li> <li>• SAPXIAF&lt;SP&gt;_&lt;PL&gt; .SCA (<i>XI Adapter Framework 3.0</i>)</li> <li>• SAPXIPCK&lt;SP&gt;_&lt;PL&gt; .SCA (<i>XI PCK 3.0</i>)</li> </ul> <div style="text-align: center;">  </div> <div style="background-color: #f0f0f0; padding: 5px;"> <p>In addition to the status information displayed in the SDM GUI Remote Client, the file  <code>/usr/sap/&lt;SAPSID&gt;/&lt;instance&gt;/SDM/program/log/ \</code>  <code>sdmlog&lt;date&gt;.log</code> contains information about the detailed deployment status, including information about the changes in J2EE Engine status.</p> </div>
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### XI Adapter Engine J2SE

✓	<b>Action</b>
	Extract the SAPXICONS<SP>_<PL> .SCA ( <i>XI Connectivity SE 3.0</i> ) archive (ZIP format) into a temporary directory.
	Save the old configuration files as described in the documentation <code>Adapter.pdf</code> in directory <code>&lt;temp_directory&gt;/tech_adapter/Administration/Documentat.</code>
	Unpack the ZIP archive <code>TechnicalAdapters.sda</code> to the installation directory of the XI Adapter Engine (J2SE).
	Restore the configuration files with <code>restore_configuration</code> .

### Front End GUIs

✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP GUI [page 51]</a> .

### ABAP 6.40 Business System (Optional)

✓	<b>Action</b>
	Patch the <a href="#">SAP Kernel [page 50]</a> .
	Import the Support Package for SAP BASIS 6.40 by using the <a href="#">Support Package Manager [page 72]</a> .

### ABAP 6.20 Business System (Optional)

✓	<b>Action</b>
	Patch the <a href="#">SAP Kernel [page 50]</a> 6.20.
	Import the released Basis Support Packages for SAP Web AS 6.20 as well as the most recent Add-On Support Package for APPINT 200_620 in the order described in <b>SAP Note 439915</b> .

## 2.5 SAP Mobile Infrastructure

### Involved Components

Instance	Component to be Patched	Name of SP on SAP Service Marketplace	Tool Used to Apply SP
ABAP Server	SAP BASIS 6.40	SAPKB640<SP>	SPAM
	SAP ABA 6.40	SAPKA640<SP>	SPAM
	PI_BASIS 2004_1_640	Patching not required	Patching not required
	SAP BW 3.50	Patching not required	Patching not required
	SAP KERNEL 6.40	SAPEXE . SAR SAPEXEDB . SAR	None
Java Server	SAP WEB AS Java 6.40 (SAP J2EE ENGINE 6.40)  OS-indepent parts of Web AS Java OS-dependent SAPinst OS-dependent CTRL Files OS-dependent part of Web AS	J2EERT<SP>_<PL> . SAR SAPINST<SP>_<PL> . SAR CTRL<DB><SP>_<PL> . SAR J2EERTOS<SP>_<PL> . SAR	SAPinst
MI Client	SAP MI CLIENT 2.5	MI25SP<SP> . ZIP	MI Web Console
	CrEme Virtual Machine (for Win CE only)		MI Web Console
Front End GUIs	Depending on used SAP GUI: <ul style="list-style-type: none"> <li>• SAP GUI FOR WINDOWS 6.20</li> <li>• SAP GUI FOR WINDOWS 6.40</li> <li>• SAP GUI FOR JAVA 6.30</li> </ul>		

## Naming Convention for Win CE MI Client Support Packages

The MI Client Support Package for Win CE consists of the CrEme Virtual Machine and a language-dependent Support Package.

### CrEme Virtual Machine



As of version 3.25, the delivered files contain a test license for ninety days. To deploy a file with an unlimited license to the mobile device, follow the exact instructions defined in **SAP Note 772334**.

To download the correct CrEme version, you need the following information about your device:

- Processor type

- Operating system
- Operating system version

The CrEme versions that can be downloaded from SAP Service Marketplace have the following naming convention:

**CrEme<version>\_<processor>\_<OS Version>\_<OS Name>\_minimal.CAB**

The following table describes the parameters:

Parameter	Description
<version>	Current version of CrEme. Possible values are: <ul style="list-style-type: none"> <li>• 324 (for version 3.24)</li> <li>• 325b13 (for version 3.25b13)</li> </ul>
<processor>	Processor type of the mobile client. Possible values are: <ul style="list-style-type: none"> <li>• XSC (for example, for XScale, PXA)</li> <li>• ARM (for Strong ARM)</li> </ul>
<OS Version>	Version number of the operating system of the mobile client. Possible values are: <ul style="list-style-type: none"> <li>• CE30 (Pocket PC 2002 or Windows CE 3.x)</li> <li>• CE4x (for pocket camera of PC 2003 or Windows CE.Net 4.x)</li> </ul>
<OS Name>	Operating system of the mobile client. Possible values are PPC (for pocket PC) or HPC (for Windows CE).



Examples:

- The correct CrEme file for a pocket PC 2003 device with XScale processor would be `CrEme324_XSC_CE4x_PPC_minimal.CAB`.
- The correct CrEme file for a Windows CE 3.0 device with Strong Arm processor would be `CrEme324_ARM_CE30_HPC_minimal.CAB`.

### MI Client Support Package

The file name is MI Runtime- and language locale-dependent. The naming convention is:

**MI25<MIRunTime><LOCALE>.CAB**

The following table describes the corresponding parameters:

Parameter	Description
<MIRunTime>	Represents the MI runtime environment for the MI Client. Possible values are: <ul style="list-style-type: none"> <li>• TOM (JSP runtime environment)</li> <li>• CORE (AWT runtime environment)</li> </ul>
<LOCALE>	Represents the language for the MI Client. For example, <code>_en</code> (English) and <code>_de</code> (German).

## 2.5 SAP Mobile Infrastructure

## Preparation

✓	<b>Action</b>
	See the latest documentation for SAP MI Administrator available in the <b>SAP Help Portal</b> (for more information, see the <a href="#">SAP Library [page 8]</a> section) under <i>SAP NetWeaver → People Integration → SAP Mobile Infrastructure → SAP MI for Administrators</i> .
	Read SAP Note <b>799331</b> ( <i>SAP Mobile Infrastruct. 2.5 SPS 11 – composite note</i> ).
	<a href="#">Download [page 15]</a> the required Support Packages listed above under <i>Involved Components</i> .

## Procedure

### ABAP Server (MI)

✓	<b>Action</b>
	Patch the <a href="#">SAP Kernel [page 50]</a> .
	Import the Support Package for SAP BASIS 6.40 by using the <a href="#">Support Package Manager [page 72]</a> .
	Import the Support Package for SAP ABA 6.40 by using the <a href="#">Support Package Manager [page 72]</a> .

### Java Server (MI)

✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> .
	If you are using Java dialog instances, also apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> on these Java dialog instances.
	You have to create the property files for the Sync Servlet again. For more information, see the section <i>Creating Property Files</i> in the <i>Installation Guide – SAP Mobile Infrastructure</i> available on SAP Service Marketplace at <a href="http://service.sap.com/instguidesNW04">service.sap.com/instguidesNW04</a> → <i>Installation</i> .

### Front End GUIs

✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP GUI [page 51]</a> .

#### MI Client

✓	Action
	Patch the MI Client according to the documentation available in the <b>SAP Help Portal</b> (for more information, see the <a href="#">SAP Library [page 8]</a> section) under <i>SAP NetWeaver → People Integration → SAP Mobile Infrastructure → SAP MI for Administrators → Installation of Corrections on the Mobile Device.</i>

## 2.6 SAP Knowledge Warehouse

### Involved Components

Instance	Component to be Updated	Name of SP on SAP Service Marketplace	Tool Used to Apply SP
ABAP Server	SAP BASIS 6.40	SAPKB640<SP>	SPAM
	SAP ABA 6.40	SAPKA640<SP>	SPAM
	PI_BASIS 2004_1_640	Patching not required	Patching not required
	SAP BW 3.50	Patching not required	Patching not required
	SAP KERNEL 6.40	SAPEXE .SAR SAPEXEDB .SAR	None
KW Content Server	SAP CONTENT SERVER 6.30	Latest Support Package	ZIP tool (for example, WinZip)
KW IKS	SAP WEB AS Java 6.40 (SAP J2EE ENGINE 6.40) OS-indepdent parts of Web AS Java OS-dependent SAPinst OS-dependent CTRL Files OS-dependent part of Web AS	J2EERT<SP>_<PL> .SAR SAPINST<SP>_<PL> .SAR CTRL<DB><SP>_<PL> .SAR J2EERTOS<SP>_<PL> .SAR	SAPinst
	SAP_IKS_1.00	KMKWJIKS<SP>_<PL> .SCA	SDM
KW ITS	SAP ITS 6.20	Latest Support Package	
TREX (optional)	TREX 6.1	TREX61SP<SP>_<PL> .SAR	SAPinst
Front End GUIs	Depending on the SAP GUI you are using: <ul style="list-style-type: none"> <li>• SAP GUI FOR WINDOWS 6.20</li> <li>• SAP GUI FOR WINDOWS 6.40</li> <li>• SAP GUI FOR JAVA 6.30</li> </ul>		

### Preparation

✓	Action
	Read SAP Note <b>726893</b> (SAP KW 7.0: Support Packages).
	<a href="#">Download [page 15]</a> the required Support Packages listed above under <i>Involved Components</i> .





## Procedure

### ABAP Server (KW)

✓	<b>Action</b>
	Patch the <a href="#">SAP Kernel [page 50]</a> .
	Import the Support Package for SAP BASIS 6.40 by using the <a href="#">Support Package Manager [page 72]</a> .
	Import the Support Package for SAP ABA 6.40 by using the <a href="#">Support Package Manager [page 72]</a> .

### KW IKS

✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> .
	If you are using Java dialog instances, also apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> on these Java dialog instances.
	<p><b>Java cluster environment only</b></p> <p>For the SAP J2EE Engine on which the KW IKS is running:</p> <ul style="list-style-type: none"> <li>• Make sure that only one dispatcher node and only one server node are running on the central instance of the J2EE Engine when the patch procedure starts.</li> <li>• Make sure that all Java dialog instances are stopped.</li> </ul> <p> Do not restart Java dialog instances while you are patching applications running on the central instance of the J2EE Engine. This may corrupt the installation of this application.</p> <p>For more information, see <a href="#">Patching in a Java Cluster Environment [page 65]</a> → <i>Procedure</i>.</p>
	<p> The following steps are <b>only</b> required if KW IKS is installed from the initial DVD (that is, from the SAP NetWeaver '04 DVD, <b>not</b> from the SAP NetWeaver '04 <b>SR1</b> DVD) and if it is the first time that you are applying Support Packages for KW IKS.</p> <ol style="list-style-type: none"> <li>1. Start the Visual Administrator.</li> <li>2. Choose <i>Services</i> → <i>Configuration Adapter Service</i> → <i>HttpHosts</i> → <i>default</i> → <i>WebApplications</i></li> <li>3. Delete the entries "kw=true" and "SAPIrExtHelp=true".</li> <li>4. Stop and restart the SAP Web AS Java system.</li> </ol>
	Deploy the archive KMKWJIKS<SP>_<PL>.SCA using the SDM, see <a href="#">SDM deployment [page 72]</a> .

## 2.6 SAP Knowledge Warehouse

	Stop and restart KW IKS with the visual admin tool, using the following commands: <i>Services → deploy → applications → sap.com/tc~kw_tc</i>
	<p><b>Java cluster environment only</b></p> <p>If KW IKS is the last application running on the J2EE Engine you are updating, you can re-enable all stopped/disabled server nodes now. Then restart the central instance and all Java dialog instances.</p>

### KW Content Server

✓	<b>Action</b>
	If a new Support Package is available, import it. For more information, see <b>SAP Note 514500</b> ( <i>Importing Support Packages for the SAP Content Server</i> ).

### TREX

✓	<b>Action</b>
	Apply the Support Package for <a href="#">Search and Classification (TREX) [page 52]</a> .

### Front End GUIs

✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP GUI [page 51]</a> .

## 2.7 SAP NetWeaver Development Environment – ABAP

### Involved Components

Instance	Component to be Updated	Name of SP on SAP Service Marketplace	Tool Used to Apply SP
ABAP Server	SAP BASIS 6.40	SAPKB640<SP>	SPAM
	SAP ABA 6.40	SAPKA640<SP>	SPAM
	PI_BASIS 2004_1_640	Patching not required	Patching not required
	SAP BW 3.50	Patching not required	Patching not required
	SAP KERNEL 6.40	SAPEXE . SAR SAPEXEDB . SAR	None
Java Server (optional)	SAP WEB AS Java 6.40 (SAP J2EE ENGINE 6.40)  OS-indepedent parts of Web AS Java OS-dependent SAPinst OS-dependent CTRL Files OS-dependent part of Web AS	J2EERT<SP>_<PL> . SAR SAPINST<SP>_<PL> . SAR CTRL<DB><SP>_<PL> . SAR J2EERTOS<SP>_<PL> . SAR	SAPinst
Front End GUIs	Depending on the SAP GUI you are using: <ul style="list-style-type: none"> <li>• SAP GUI FOR WINDOWS 6.20</li> <li>• SAP GUI FOR WINDOWS 6.40</li> <li>• SAP GUI FOR JAVA 6.30</li> </ul>		

### Preparation

✓	<b>Action</b>
	<a href="#">Download [page 15]</a> the required Support Packages listed above under <i>Involved Components</i> .

### Procedure

✓	<b>Action</b>
	Patch the <a href="#">SAP Kernel [page 50]</a> .
	Import the Support Package for SAP BASIS 6.40 by using the <a href="#">Support Package Manager [page 72]</a> .
	Import the Support Package for SAP ABA 6.40 by using the <a href="#">Support Package Manager [page 72]</a> .
	Import the Support Package for <a href="#">SAP GUI [page 51]</a> .

## 2.8 SAP NetWeaver Development Environment – Java

### Involved Components

Instance	Component to be Updated	Name of SP on SAP Service Marketplace	Tool Used to Apply SP
Java Server (SAP IGS optional)	SAP WEB AS Java 6.40 (SAP J2EE ENGINE 6.40)  OS-independent parts of Web AS Java OS-dependent SAPinst OS-dependent CTRL Files OS-dependent part of Web AS	J2EERT<SP>_<PL> .SAR SAPINST<SP>_<PL> .SAR CTRL<DB><SP>_<PL> .SAR J2EERTOS<SP>_<PL> .SAR	SAPinst
	SAP IGS 6.40	IGS_8 .SAR	SAPCAR
NetWeaver Developer Studio	SAP NW DEVELOPER STUDIO 2.0	JIDE<SP>_<PL> .SAR	SAPSetup
NWDI (optional)	JDI 6.40	SAPDEVINF<SP>_<PL> .SCA	SDM
	JDI BUILD TOOL 6.40	SAPBUILDT<SP>_<PL> .SCA	SDM
	JDI OFFLINE	SAPDEVINFF<SP>_<PL> .SCA	SDM
Front End GUIs	Depending on the SAP GUI you are using: <ul style="list-style-type: none"> <li>• SAP GUI FOR WINDOWS 6.20</li> <li>• SAP GUI FOR WINDOWS 6.40</li> <li>• SAP GUI FOR JAVA 6.30</li> </ul>		


### Preparation

✓	<b>Action</b>
	<a href="#">Download [page 15]</a> the required Support Packages listed above under <i>Involved Components</i> .

### Procedure

#### SAP NetWeaver Developer Workplace


✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> .
	If you are using Java dialog instances, also apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> on these Java dialog instances.
	If required, also patch <a href="#">SAP IGS [page 68]</a> on your SAP Web AS Java systems.

	<p><b>Java cluster environment only</b></p> <ul style="list-style-type: none"> <li>• Make sure that only one dispatcher node and only one server node are running on the central instance of the J2EE Engine when the update starts.</li> <li>• Make sure that all Java dialog instances are stopped.</li> </ul> <div style="text-align: center;">  <p>Do not restart Java dialog instances while you are updating applications running on the central instance of the J2EE Engine. This may corrupt the installation of this application.</p> </div> <p>For more information, see <a href="#">Patching in a Java Cluster Environment [page 65]</a> → <i>Procedure</i>.</p>
	<p>Extract the downloaded archive <code>JIDE&lt;SP&gt;_&lt;PL&gt;.SAR</code> with <a href="#">SAPCAR [page 71]</a>.</p>
	<p>Make sure that all SAP applications have been stopped.</p>
	<p>Start <code>JDTSetup.exe</code> in the temporary directory and follow the instructions on the screen.</p> <p>For more information, see the <i>Installation Guide – SAP NetWeaver Developer Studio</i>: available on SAP Service Marketplace at <a href="http://service.sap.com/instguidesnw04">service.sap.com/instguidesnw04</a> → <i>Installation</i>.</p> <p>Select <i>Updating SAP NetWeaver Developer Studio</i></p>
	<p><b>Java cluster environment only</b></p> <p>After the update of the last application running on this SAP J2EE Engine has been completed, you can re-enable all stopped/disabled server nodes now. Then restart the central instance and all Java dialog instances.</p>

### SAP NetWeaver Developer Studio (Standalone)

✓	<p><b>Action</b></p>
	<p>Extract the downloaded <code>JIDE&lt;SP&gt;_&lt;PL&gt;.SAR</code> with <a href="#">SAPCAR [page 71]</a>.</p>
	<p>Make sure that all SAP applications have been stopped.</p>
	<p>Start <code>JDTSetup.exe</code> in the temporary directory and follow the instructions on the screen.</p> <p>For more information, see the <i>Installation Guide – SAP NetWeaver Developer Studio</i>: available on SAP Service Marketplace at <a href="http://service.sap.com/instguidesnw04">service.sap.com/instguidesnw04</a> → <i>Installation</i>.</p> <p>Select <i>Updating SAP NetWeaver Developer Studio</i></p>

## Java Server / NWDI

✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> .
	If you are using Java dialog instances, also apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> on these Java dialog instances.
	<p><b>Java cluster environment only</b></p> <p>For the J2EE Engine on which the NWDI components are running:</p> <ul style="list-style-type: none"> <li>• Make sure that only one dispatcher node and only one server node are running on the central instance of the J2EE Engine when the update starts.</li> <li>• Make sure that all Java dialog instances are stopped.</li> </ul> <p style="text-align: center;"></p> <p style="text-align: center;">Do not restart Java dialog instances while you are updating applications running on the central instance of the J2EE Engine. This may corrupt the installation of this application.</p> <p>For more information, see <a href="#">Patching in a Java Cluster Environment [page 65]</a> → <i>Procedure</i>.</p>
	<p>Deploy the following archives using the SDM, see <a href="#">SDM deployment [page 72]</a>:</p> <ul style="list-style-type: none"> <li>• SAPDEVINFF&lt;SP&gt;_&lt;PL&gt; . SCA</li> <li>• SAPDEVINF&lt;SP&gt;_&lt;PL&gt; . SCA</li> <li>• SAPBUILDT&lt;SP&gt;_&lt;PL&gt; . SCA</li> </ul>
	<p><b>Java cluster environment only:</b></p> <p>If the NWDI components are the last applications running on the J2EE Engine you are updating, you can re-enable all stopped/disabled server nodes now. Then restart the central instance and all Java dialog instances.</p>

## 2.9 SAP NetWeaver Development Environment – Interactive Forms based on Adobe Software

### Involved Components

Instance	Component to be Updated	Name of SP on SAP Service Marketplace	Tool Used to Apply SP
ABAP Server <i>(optional)</i>	SAP BASIS 6.40	SAPKB640<SP>	SPAM
	SAP ABA 6.40	SAPKA640<SP>	SPAM
	PI_BASIS 2004_1_640	Patching not required	Patching not required
	SAP BW 3.50	Patching not required	Patching not required
	SAP KERNEL 6.40	SAPEXE .SAR SAPEXEDB .SAR	None
NetWeaver Developer Studio	SAP NW DEVELOPER STUDIO 2.0	JIDE<SP>_<PL> .SAR	SAPSetup
Adobe	SAP WEB AS Java 6.40 (SAP J2EE ENGINE 6.40) OS-independent parts of Web AS Java OS-dependent SAPinst OS-dependent CTRL Files OS-dependent part of Web AS	J2EERT<SP>_<PL> .SAR SAPINST<SP>_<PL> .SAR CTRL<DB><SP>_<PL> .SAR J2EERTOS<SP>_<PL> .SAR	SAPinst
	ADOBE DOCUMENT SERVICES 1.00	ADSSAP<SP>_<PL> .SCA ADSSAPOFF<SP>_<PL> .SCA	SDM
Front End GUIs	Depending on the SAP GUI you are using: <ul style="list-style-type: none"> <li>SAP GUI FOR WINDOWS 6.20</li> <li>SAP GUI FOR WINDOWS 6.40</li> <li>SAP GUI FOR JAVA 6.30</li> </ul>		
	Adobe Reader or Adobe Acrobat (supported versions: 7.0.1)		InstallShield

### Preparation


✓	<b>Action</b>
	Read SAP Note <b>727168</b> ( <i>Adobe Document Services: patches</i> ).
	<a href="#">Download [page 15]</a> the required Support Packages listed above under <i>Involved Components</i> .

## Procedure

### ABAP Server

✓	<b>Action</b>
	Patch the <a href="#">SAP Kernel [page 50]</a> .
	Import the Support Package for SAP BASIS 6.40 by using the <a href="#">Support Package Manager [page 72]</a> .
	Import the Support Package for SAP ABA 6.40 by using the <a href="#">Support Package Manager [page 72]</a> .

### Java Server

✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> .
	If you are using Java dialog instances, also apply the Support Package for <a href="#">SAP Web AS Java 6.40 [page 56]</a> on these Java dialog instances.
	<p><b>Java cluster environment only</b></p> <p>For the SAP J2EE Engine on which the Adobe Document Service is running:</p> <ul style="list-style-type: none"> <li>• Make sure that only one dispatcher node and only one server node are running on the central instance of the J2EE Engine when the update starts.</li> <li>• Make sure that all Java dialog instances are stopped.</li> </ul> <p> Do not restart Java dialog instances while you are updating applications running on the central instance of the J2EE Engine. This may corrupt the installation of this application.</p> <p>For more information, see <a href="#">Patching in a Java Cluster Environment [page 65]</a> → <i>Procedure</i>.</p>
	Undeploy <i>DocumentServicesBinaries</i> using the SDM, see <a href="#">SDM undeployment [page 74]</a> .
	Deploy the following archives using the SDM, see <a href="#">SDM deployment [page 72]</a> :
	<ul style="list-style-type: none"> <li>• ADSSAPOFF&lt;SP&gt;_&lt;PL&gt; .SCA</li> <li>• ADSSAP&lt;SP&gt;_&lt;PL&gt; .SCA</li> </ul>
	Delete the Alias <i>ReaderRights</i> from Document Service Configuration in the <i>Visual Administrator</i> . Move the Credential file to <INSTDIR>/<SAPSID>/SYS/global/AdobeDocumentServices/TrustManagerService/trust/credentials
	Reregister the Credential in the <i>Visual Administrator</i> . For more information, see the <i>Configuration Guide – Adobe Document Services</i> available on SAP Service Marketplace at <a href="http://service.sap.com/instguidesNW04">service.sap.com/instguidesNW04</a> → <i>Installation</i> .



### 2.9 SAP NetWeaver Development Environment – Interactive Forms based on Adobe Software

	<p><b>Java cluster environment only</b></p> <p>If the Adobe Document Service is the last application running on this J2EE Engine you are updating, you can re-enable all stopped/disabled server nodes now. Then restart the central instance and all Java dialog instances.</p>
--	--

#### Front End GUIs

✓	<b>Action</b>
	Apply the Support Package for <a href="#">SAP GUI [page 51]</a> .
	<p>Uninstall the <i>Adobe Designer</i> if it is already installed. Reinstall the <i>Adobe LiveCycle Designer</i> from the 640 Compilation 3, Presentation DVD, Mat. No. 50072743, folder <i>ADOBE_LC_DES</i> by running <i>ALDsetup.exe</i>.</p> <p>For more information, see SAP Note 801524.</p>
	Install Active Component Framework (ACF) on the test front end. For more information, see SAP Note 766191.


## 3 Generic Components

Generic SAP components (for example, SAP Kernel) are used in multiple SAP NetWeaver scenarios. This section gives you information about applying Support Packages in these generic components.






You only have to perform the steps listed here if the corresponding component is listed in the [Applying Support Packages to SAP NetWeaver '04 Scenarios \[page 16\]](#) section for your SAP NetWeaver scenario.

### 3.1 SAP Kernel

✓	<b>Action</b>
	<a href="#">Download [page 15]</a> the required Support Packages.
	Copy the downloaded files <code>SAPEXE.SAR</code> and <code>SAPXEDB.SAR</code> into a temporary directory, for example <code>&lt;sp_directory&gt;</code> .
	Unpack the files with <a href="#">SAPCAR [page 71]</a> .
	Stop the SAP system to which you want to update.   On Windows, it may be necessary to also stop the SAP services using the Control Panel.
	Save the kernel directory by backing it up or copying it to a backup directory. The directory is called: <ul style="list-style-type: none"> <li>• On Windows: <code>&lt;drive&gt;:\usr\sap\&lt;SAPSID&gt;\sys\exe\run</code></li> <li>• On UNIX: <code>/usr/sap/&lt;SAPSID&gt;/sys/exe/run</code></li> </ul> If problems occur with the new update, you can use the backup to return to the kernel version you used before.
	Copy or move the unpacked programs to the SAP kernel directory.
	<b>UNIX only</b> <ol style="list-style-type: none"> <li>1. Log on as user <code>&lt;sapsid&gt;adm</code>.</li> <li>2. Enter the following: <ul style="list-style-type: none"> <li>• <code>su root</code> (IBM DB2 UDB for UNIX)</li> <li>• <code>su - root</code> (all other databases)</li> </ul> </li> <li>3. Enter the following: <pre>cd /usr/sap/&lt;SAPSID&gt;/SYS/exe/run ./saproot.sh &lt;SAPSID&gt; exit</pre> </li> </ol>
	Start the SAP system again.

## 3.2 SAP GUI

✓	Action
	<p>The latest available releases of SAP GUI are:</p> <ul style="list-style-type: none"> <li>• SAP GUI for Windows 6.40</li> <li>• SAP GUI for Java 6.30</li> </ul> <p>In general, the <i>SAP GUI</i> version you are using must be equal to or higher than the underlying <i>SAP Web Application Server</i> releases of the SAP systems. All <i>SAP GUI</i> versions are downward compatible. This means you can use a higher <i>SAP GUI</i> version for all SAP systems based on lower releases of the <i>SAP Web Application Server</i>.</p> <p> Exceptions to this rule are <i>SAP GUI for Windows 6.20</i> and <i>SAP GUI for Java 6.30</i> (as of revision 4), which are compatible to SAP systems based on SAP Web Application Server releases 6.30 and 6.40.</p> <p>To download the <i>SAP GUI</i> patches, follow the path <b>service.sap.com/patches</b> → <i>Enter by Application Group</i> → <i>SAP Frontend Components</i> → <i>SAP GUI FOR WINDOWS / JAVA</i> → <i>SAP GUI FOR WINDOWS / JAVA &lt;VERSION&gt;</i>.</p> <p> Although you can continue using older <i>SAP GUI</i> versions (as long as your SAP Systems with the underlying SAP Web AS do not require new features supported by newer <i>SAP GUI</i> versions), SAP recommends you to update your <i>SAP GUI</i> on a regular basis.</p> <p>For a new installation of <i>SAP GUI for Windows</i>, install it from the latest Presentation CD 1 (now part of the SAP Netweaver DVD) and then apply the latest patch for the appropriate release. You can download the current version of the <i>SAP Frontend Installation Guide</i> at <b>service.sap.com/sapgui</b> → <i>Media Library</i> → <i>Literature</i>.</p> <p> SAP GUI patches are cumulative, which means the latest <i>SAP GUI</i> update includes all corrections implemented so far. Applying the single package of the latest update is sufficient.</p> <p>To install the <i>SAP GUI for Java</i> for the first time, you can use the latest revision (patch) directly since every <i>SAP GUI for Java</i> patch contains a complete installation. To install the revision, follow the detailed instructions in the manual of the appropriate revision.</p> <p>For more information, see the SAP GUI Family presentation available at <b>service.sap.com/sapgui</b> and the SAP Note <b>147519</b> (<i>Maintenance Strategy</i>).</p>
	<p><a href="#">Download [page 15]</a> the required Support Packages.</p>
	<p>Patch SAP GUI.</p> <p>For more information, see the <i>SAP Frontend Installation Guide</i> available in SAP Service Marketplace at <b>service.sap.com/sapgui</b> → <i>Media Library</i> → <i>Literature</i>.</p>

## 3.3 Search and Classification (TREX)

## 3.3 Search and Classification (TREX)

In this section, the following variables are used:

### Description of Variables

Variable	Meaning
<TREX_DIR>	Installation directory for TREX. The path to the directory is as follows: <ul style="list-style-type: none"> <li>• UNIX /usr/sap/trex_&lt;instance_number&gt;</li> <li>• Windows &lt;disk_drive&gt;:\usr\sap\trex_&lt;instance_number&gt;</li> </ul>
<TREX_SP>	Directory used for the patching of TREX.

## Involved Components

Instance	Component to be Updated	Name of SP on SAP Service Marketplace	Tool Used to Apply SP
TREX (optional)	TREX 6.1	TREX61SP<SP>_<PL>.SAR	SAPinst

## Prerequisites

In a distributed scenario, all TREX systems must have the same TREX release with the same patch level. Mixed installations with different TREX releases are not supported.

✓	Action
	Make sure that you have installed at least one previous TREX 6.1 release (Version 6.1.XX.XX) : <ul style="list-style-type: none"> <li>• If you have already installed TREX, refer to the file &lt;TREX_DIR&gt;/doc/TREXVersion.html to find out its version.</li> <li>• If you do not have TREX installed at all, install TREX 6.1 from scratch as described in the <i>Installation Guide – Search and Classification (TREX) 6.1</i> available on SAP Service Marketplace at <a href="http://service.sap.com/instguidesNW04">service.sap.com/instguidesNW04</a> → <i>Installation</i>.</li> </ul>


## Preparation

✓	<b>Action</b>
	<a href="#">Prepare the system for SAPinst GUI [page 75]</a> .
	Read <b>SAP Note 833601</b> : Update to TREX 6.1 SP12.
	<a href="#">Download [page 15]</a> the required Support Packages.
	Create a directory <TREX_SP> for the TREX Support Packages.
	Use <i>SAPCAR</i> to extract the downloaded Support Package file <code>TREX61SP&lt;SP&gt;_&lt;PL&gt;.SAR</code> into the directory <TREX_SP>, see <a href="#">SAPCAR [page 71]</a> . The extraction of the archive generates several subdirectories under the directory <TREX_SP>. The relevant directory for this description is the SAPinst directory: <TREX_SP>/SAPINST/<OS_DIR>/sapinst

## Procedure

### TREX Server

#### TREX Server on UNIX

✓	<b>Action</b>
	Log on to the host on which you want to apply the TREX Support Package, as <code>root</code> user.
	Change to the directory <TREX_SP>/SAPINST/<OS_DIR>, which has been created by <i>SAPCAR</i> .  Before starting the update, you have to close the TREX Admintool.
	Start <a href="#">SAPinst [page 76]</a> .
	On the <i>Welcome</i> screen of SAPinst, choose <i>Installation/Upgrade of a TREX instance</i> .
	Choose <i>Next</i> .
	Follow the instructions on your screen. The necessary input parameters are listed in section <i>Procedure Details</i> → <i>Options for the Support Package</i> below.
	When you have entered all input parameters, SAPinst starts the installation and displays the installation progress during the processing phase. If the installation is successful, SAPinst displays the message <code>The installation finished successfully</code> .

#### TREX Server on Windows

✓	<b>Action</b>
	Log on to the host on which you want to apply the TREX Support Package to, with <b>administrator</b> rights.
	Start <a href="#">SAPinst [page 77]</a> .


### 3.3 Search and Classification (TREX)

	On the <i>Welcome</i> screen of SAPinst, choose <i>Installation/Upgrade of a TREX instance</i> .
	Choose <i>Next</i> .
	Follow the instructions on your screen. The necessary input parameters are listed in section <i>Procedure Details</i> → <i>Options for the Support Package</i> below.
	When you have maintained all input parameters, SAPinst starts the installation and displays the installation progress during the processing phase. If the installation is successful, SAPinst displays the message <code>The installation finished successfully</code> .

## Procedure Details

### Options for the Support Package

The table below shows the names of the windows and the input options that are displayed during the TREX update, and the entries that you need to make:

Window	Input Option	Entry
<i>Welcome to NetWeaver Installation</i>	<ul style="list-style-type: none"> <li><i>Installation/Upgrade of a TREX instance</i></li> <li><i>Uninstallation of a TREX instance</i></li> </ul>	<ol style="list-style-type: none"> <li>Choose <i>Installation/Upgrade of a TREX instance</i>.</li> <li>Choose <i>Next</i>.</li> </ol>
<i>TREX</i> → <i>Installation</i>	Confirm the installation of TREX Search and Classification.	Choose <i>Next</i> .
<i>TREX</i> → <i>Instance for Hotfix</i>	Choose an existing TREX instance to upgrade.	<ol style="list-style-type: none"> <li>Select one of the TREX instances where the hotfixes should be applied.           <div data-bbox="938 1227 1318 1559" style="border: 1px solid gray; padding: 5px; margin: 10px 0;">  <p>For example, if you want to update TREX instance 11, you select:</p> <ul style="list-style-type: none"> <li>On UNIX: TREX instance 11 [/usr/sap/trex_11]</li> <li>On Windows TREX instance 11 [C:\usr\sap\trex_11]</li> </ul> </div> </li> <li>Choose <i>Next</i>.</li> </ol>
<i>TREX</i> → OS <i>User</i>	Specify the user who will own the TREX directories and files.	<ol style="list-style-type: none"> <li>Enter the name and password of the <b>existing</b> OS user account for the TREX installation you used to carry out the original TREX installation. This user is already displayed by default.</li> <li>Choose <i>Next</i>.</li> </ol>
<i>Start Execution</i>		<p>Before the installation starts, the system displays the parameters that you entered.</p> <p>Choose <i>Start</i> to start the installation.</p>

<i>Installation Progress</i>		
<i>Finished successfully</i>		Choose <i>OK</i> to finish the installation.

## Troubleshooting

<p><b>Windows only</b></p> <p><b>Symptom</b></p> <ul style="list-style-type: none"> <li>• User cannot start TRES as Windows Service</li> <li>• Bad performance on Windows Server 2003</li> </ul> <p><b>Possible causes:</b></p> <p>Due to significant security changes in Windows Server 2003, some readjustments must be made to TRES. For more information, see <b>SAP Note 752950</b>.</p>
<p><b>Symptom</b></p> <p>Access problem to TRES website</p> <p><b>Possible causes:</b></p> <p>Permission settings for TRES directory may be incorrect. For more information, see <b>SAP Note 777099</b>.</p>
<p><b>Symptom</b></p> <p>The <i>World Wide Web Publishing Service</i> does not open after you have started it</p> <p><b>Possible solution:</b></p> <p>Try to start it using a command prompt as follows:</p> <ol style="list-style-type: none"> <li>1. Open a command prompt.</li> <li>2. Execute the command <code>net start w3svc</code>.</li> </ol>

## 3.4 SAP Web AS Java



### 3.4.1 Appropriate JDK Version and JVM Settings

✓	<b>Action</b>
	<p>A new SP Stack may require certain new JDK version and modufucations to particular JVM parameters. If applicable, you must update your JDK installation prior to updating the SAP J2EE Engine.</p> <p>For the recommended JDK version and JVM parameters of you platform, see <b>SAP Note 709140</b> (<i>Recommended JDK version and VM settings for SAP Web AS 6.40 SP4 or higher</i>).</p>


### 3.4.2 Preparation


✓	<b>Action</b>
	Download <a href="#">SAPCAR [page 71]</a> .
	See SAP Note <b>697535</b> ( <i>Additional information on installing SAP Web AS Java SPs (Web AS 6.40)</i> ).
	Make sure that your database has the correct Support Package level. For more information about supported database versions, see SAP Service Marketplace at <a href="http://service.sap.com/PAM">service.sap.com/PAM</a> → <i>SAP NetWeaver</i> → <i>SAP NETWEAVER 04</i> → <i>Database Platforms</i> → <i>Java Server</i> .
	If possible, set your database system to automatic growth. If your database does not provide this function, make sure that there is at least as much free space in the database as SAPinst requires. Monitor your database and create more free space, if necessary.
	Adjust the settings of the JVM. For more information, see <b>SAP Note 709140</b> .





	<p><b>Only valid if you are updating from SP Stack 03 or below:</b></p> <p>As of SP Stack 04, the default naming pattern for rotating log and trace file sets changed from &lt;filename&gt;.&lt;trc log&gt;.&lt;number&gt; to &lt;filename&gt;.&lt;number&gt;.&lt;trc log&gt; (where &lt;number&gt; is 0, 1, 2, ...). This may lead to errors in the Java Log Viewer tools, if files with old and new naming patterns are mixed in a log directory.</p> <p>To avoid these problems, proceed as follows:</p> <ol style="list-style-type: none"> <li>1. Find the log directories in your J2EE Engine installation directory (a standard log path is &lt;engine-root&gt;/cluster/&lt;server dispatcher&gt;/log, but depending on the log configuration, there might also be other log directories).</li> <li>2. Remove the log and trace files with the old naming pattern from these directories.</li> </ol>  <ul style="list-style-type: none"> <li>• We recommend that you backup the old log and trace files before you delete them.</li> <li>• If it is not possible to remove some of these files because of a sharing violation, you might have to stop your J2EE Engine instance.</li> </ul>
	<p>If <b>SAP MI</b> is running on this Web AS Java, back up application files by performing the following steps:</p> <ol style="list-style-type: none"> <li>1. Start the SAP MI Web Console. For more information, see the documentation for SAP MI Administrator in the <b>SAP Help Portal</b> (for more information, see the <a href="#">SAP Library [page 8]</a> section) under:  <i>SAP NetWeaver → People Integration → SAP Mobile Infrastructure → SAP MI for Administrators → SAP MI Web Console → <a href="#">Starting the SAP MI Web Console</a></i></li> <li>2. Choose tab <i>Upload Application → Save/Restore Application Files.</i></li> <li>3. Choose <i>Add New Backup.</i></li> </ol> <p>The system creates a new backup and inserts an entry with a new backup number.</p>
	<p><a href="#">Prepare the system for SAPinst GUI [page 75]</a>.</p>
<b>IBM eServer iSeries only</b>	
	<p>On your Windows installation system, map a share to the IBM eServer iSeries system in which you are going to apply the Support Package.</p>
	<p><a href="#">Download [page 15]</a> the required Support Packages into a temporary directory, for example &lt;sp_directory&gt;.</p>  <p><b>IBM eServer iSeries only</b> Use a temporary directory on the mapped share.</p>

## 3.4 SAP Web AS Java

	<p>Extract the SAR files with <a href="#">SAPCAR [page 71]</a>.</p> <p></p> <p>Files must be extracted in the following order:</p> <ol style="list-style-type: none"> <li>1. SAPINST&lt;SP&gt;.SAR and CTRL&lt;DB&gt;&lt;SP&gt;.SAR These archives will be extracted to the subdirectory SAPINST-CD of &lt;sp_directory&gt;.</li> <li>2. J2EERT&lt;SP&gt;.SAR</li> <li>3. J2EERTOS&lt;SP&gt;.SAR J2EE*.SAR files will be extracted to the subdirectory J2EE-RUNT-CD of &lt;sp_directory&gt;.</li> </ol>
--	--

<b>UNIX only</b>	
✓	<b>Action</b>
	Log on to your SAP System host as user <code>root</code> .
	<p>Start <a href="#">SAPInst on UNIX [page 76]</a>.</p> <p>For information about how to work with the SAPInst GUI, see <a href="#">SAPInst GUI Handling [page 77]</a>.</p> <p></p> <p>During the update of the J2EE Engine, all Java dialog instances get stopped by SAPInst. Do not restart Java dialog instances manually while you are updating the central instance. This may corrupt the central instance installation.</p>

<b>Windows only</b>	
✓	<b>Action</b>
	Log on to your SAP System host. Your user has to be a member of the local administration group.
	Make sure that SAP MMC and the Microsoft Service Management Console are not running.
	<p>Start <a href="#">SAPInst on Windows [page 77]</a>.</p> <p>For information about how to work with the SAPInst GUI, see <a href="#">SAPInst GUI Handling [page 77]</a>.</p> <p></p> <p>During the update of the J2EE Engine, all Java dialog instances get stopped by SAPInst. Do not restart Java dialog instances manually while you are updating the central instance. This may corrupt the central instance installation.</p>

IBM eServer iSeries only	
✓	<b>Action</b>
	Install the TMKSVR from subdirectory <Path to directory of .SAR files>/SAPINST-CD/SAPINST/OS400/AS400/TMKSVR by double-clicking the file SETUP.EXE in this directory.
	<p>Start <a href="#">SAPinst [page 80]</a>:</p> <p>From the directory in which SAPINST&lt;SP number&gt;.SAR and CTRL&lt;DB&gt;&lt;SP number&gt;.SAR have been extracted, go to subdirectory SAPINST-CD\SAPINST\AS400\OS400 and double-click the file sapinst.exe.</p> <p> During the update of the J2EE Engine, all Java dialog instances get stopped by SAPinst. Do not restart Java dialog instances manually while you are updating the central instance. This may corrupt the central instance installation.</p>

### 3.4.3 Patching the J2EE Engine



As of SP Stack 04, you can also update Java dialog instances. For more information, see the *Patching a Java Dialog Instance* section below.



If you need to update a cluster installation of the J2EE Engine, update each instance separately.

UNIX and Windows only	
✓	<b>Action</b>
	Make sure that you have performed the steps listed in the <a href="#">Preparation [page 56]</a> section.
	SAPinst GUI starts automatically by displaying the <i>Welcome</i> screen. Select the option <i>Apply Support Package &lt;SP&gt;</i> .
	Select the instance profile of the Java central instance and choose <i>Next</i> .

## 3.4 SAP Web AS Java

<b>J2EE Add-In</b>	<p>The <i>RFC User Information</i> screen is displayed.</p> <p>Enter the following:</p> <ul style="list-style-type: none"> <li>• SAP Web AS RFC user</li> <li>• SAP Web AS RFC password</li> <li>• SAP Web AS RFC client</li> </ul> <p>You have to use a RFC user that has the appropriate rights to access the server add-in. For example, the users <i>SAPJSF</i> and <i>J2EE_ADMIN</i> do not have the required rights. A valid user name would be <i>DDIC</i>.</p>
	Choose <i>OK</i> .
	<p>In the <i>Defining Patch Parameters</i> dialog:</p> <ul style="list-style-type: none"> <li>• Make sure that the correct JDK home directory is selected (see the <a href="#">New JDK and VM Settings Required [page 56]</a> section).</li> <li>• Enter the password for user &lt;sapsid&gt;adm and the password for user SAPservice&lt;SAPSID&gt;.</li> <li>• Windows only Entering values for the Windows domain for the SAP system is optional.</li> </ul>
	Choose <i>OK</i> .
	<ul style="list-style-type: none"> <li>• If the parameters displayed on the <i>Start Installation</i> screen are specified correctly, choose <i>Start</i> to start the deployment. The <i>Installation Progress</i> screen is displayed while the deployment is running.</li> <li>• If the parameters displayed on the <i>Start Installation</i> screen are not correct, use the <i>Back</i> button to return to the <i>Defining Patching Parameters</i> screen and correct the parameters.</li> </ul>
	If the installation was successful, the <i>Finished installation</i> message is displayed.
	Choose <i>OK</i> to complete the installation.

<b>IBM eServer iSeries only</b>	
✓	<b>Action</b>
	Make sure that you have performed the steps listed in the <a href="#">Preparation [page 56]</a> section.
	SAPinst GUI starts automatically by displaying the <i>Welcome</i> screen. Select the option <i>Apply Support Package &lt;SP&gt;</i> .
	<p>Select the instance profile of the Java central instance and choose <i>Next</i>.</p> <p>Normally, the Java central instance profile is as follows:</p> <ul style="list-style-type: none"> <li>• For SAP Web AS Java share&gt;:\usr\sap\&lt;SAPSID&gt;\JC&lt;instanceno&gt;\SYS\profile\ &lt;SAPSID&gt;_JC&lt;instanceno&gt;_&lt;instancehost&gt;</li> <li>• For SAP Web AS ABAP+Java share&gt;:\usr\sap\&lt;SAPSID&gt;\DVEBMGS&lt;instanceno&gt;\SYS\ profile\&lt;SAPSID&gt;_DVEBMGS&lt;instanceno&gt;_&lt;instancehost&gt;</li> </ul>

<p>Choose <i>Next</i>.</p> <p>The <i>CD Browser</i> dialog appears.</p>	
<p>Specify the file LABEL.ASC and enter the following information in the field <i>Package Location</i>:</p> <ul style="list-style-type: none"> <li>For the <i>SAP Installation Master CD</i>: &lt;Path to directory of .SAR files&gt;\SAPINST-CD.</li> <li>For the <i>J2EE Engine CD</i>: &lt;Path to directory of .SAR files&gt;\J2EE-RUNT-CD</li> </ul>	
<p>Choose <i>OK</i>.</p>	
<p><b>J2EE Add-In</b></p>	<p>The <i>RFC User Information</i> dialog appears.</p> <p>Enter the following:</p> <ul style="list-style-type: none"> <li>SAP Web AS RFC user</li> <li>SAP Web AS RFC password</li> <li>SAP Web AS RFC client</li> </ul> <p>You have to use a RFC user that has the appropriate rights to access the server add-in. For example, the users SAPJSF and J2EE_ADMIN do not have the required rights. A valid user name would be DDIC.</p>
<p>Enter the path to the JDK on the iSeries. Make sure that the correct JDK home directory is selected (see the <a href="#">New JDK and VM Settings Required [page 56]</a> section).</p>	
<p>Enter the password for the user &lt;SAPSID&gt;OFR, (for example, if your &lt;SAPSID&gt; is DEV, enter the password for user DEVOFR).</p>	
<p>Parameters of the Kernel library (J2EE Only) and the J2EE native executable library (Add-In and J2EE Only):</p> <p>SAP recommends that you load the libraries from the CD to update them. If you share the libraries with other systems, you have to reapply them to the other systems after the update. To do this, call RMVJ2EELIB and APYJ2EELIB. For a J2EE Only system, also call RMVR3KRN and APYR3KRN.</p> <p>If you do not want to update the library content, select <i>Use existing library</i>.</p> <p>Make sure the given library names are correct, the libraries exist and are used by the system.</p>	
<ul style="list-style-type: none"> <li>If the parameters displayed in the <i>Start Installation</i> dialog are specified correctly, choose <i>Start</i> to start the deployment. The <i>Installation Progress</i> screen appears.</li> <li>If the parameters displayed on the <i>Start Installation</i> screen are not correct, use the <i>Back</i> button to return to the <i>Defining Patching Parameters</i> screen and correct the parameters.</li> </ul>	
<p>If the installation was successful, the <i>Finished installation</i> message is displayed.</p>	
<p>Choose <i>OK</i> to complete the installation.</p>	

## 3.4 SAP Web AS Java

✓	Action
	<p>If <b>SAP MI</b> is running on this Web AS Java, restore the application files by performing the following steps:</p> <ol style="list-style-type: none"> <li>1. Start the SAP MI Web Console. For more information, see the documentation for SAP MI Administrator in the <b>SAP Help Portal</b> (for more information, see the <a href="#">SAP Library [page 8]</a> section) under: <ul style="list-style-type: none"> <li><i>SAP NetWeaver</i> → <i>People Integration</i> → <i>SAP Mobile Infrastructure</i> → <i>SAP MI for Administrators</i> → <i>SAP MI Web Console</i> → <a href="#">Starting the SAP MI Web Console</a></li> </ul> </li> <li>2. Choose <i>Upload Application</i> → <i>Save/Restore Application Files</i>. A list of all backups is displayed.</li> <li>3. To restore the application files, select the latest backup and choose <i>Restore</i>.</li> </ol>
	<p>If the System Landscape Directory (SLD) is running on this Web AS Java, ensure that the following data requirements are met on the SLD after the update:</p> <ul style="list-style-type: none"> <li>• The SLD application of the new SP level possibly requires an enhanced data model inside the SLD. To check whether the data model version meets the requirement of the application, follow the URL <code>http://&lt;host&gt;:5&lt;instance-no&gt;00/sld/admin</code>. A warning appears on this page if the data model is outdated. In this case, import the current data model by following the URL <code>http://&lt;host&gt;:5&lt;instance-no&gt;00/sld/admin/import.jsp</code> → <i>Import Model &lt;VERSION&gt; from Server</i>.</li> <li>• SAP regularly delivers updates for the SAP MASTER DATA FOR SLD. To check the availability and download the most current CR content delta at <code>service.sap.com/patches</code> → <i>Enter by Application Group</i> → <i>Additional Components</i> → <i>SAP MASTER DATA FOR SLD</i> → <i>SAP MASTER DATA FOR SLD 1.0</i> → <i>#OS independent</i>. Then import the downloaded update on the page <code>http://&lt;host&gt;:5&lt;instance-no&gt;00/sld/admin/import.jsp</code>.</li> </ul>

## 3.4.4 Patching a Java Dialog Instance

UNIX and Windows only	
✓	Action
	Make sure that you have performed the steps listed in the <a href="#">Preparation [page 56]</a> section.
	SAPinst GUI starts automatically by displaying the <i>Welcome</i> screen. Select the option <i>Patching Dialog Instances</i> .
	Select the instance profile of the Java dialog instance and choose <i>Next</i> .

<b>J2EE Add-In</b>	<p>The <i>RFC User Information</i> screen is displayed.</p> <p>Enter the following:</p> <ul style="list-style-type: none"> <li>• SAP Web AS RFC user</li> <li>• SAP Web AS RFC password</li> <li>• SAP Web AS RFC client</li> </ul> <p>You have to use a RFC user that has the appropriate rights to access the server add-in. For example, the users <i>SAPJSF</i> and <i>J2EE_ADMIN</i> do not have the required rights. A valid user name would be <i>DDIC</i>.</p>
	Choose <i>OK</i> .
	<p>In the <i>Defining Patch Parameters</i> dialog:</p> <ul style="list-style-type: none"> <li>• Make sure that the correct JDK home directory is selected (see the <a href="#">New JDK and VM Settings Required [page 56]</a> section).</li> <li>• Enter the password for user &lt;sapsid&gt;adm and the password for user SAPservice&lt;SAPSID&gt;.</li> <li>• Windows only Entering values for the Windows domain for the SAP system is optional.</li> </ul>
	Choose <i>OK</i> .
	<ul style="list-style-type: none"> <li>• If the parameters displayed on the <i>Start Installation</i> screen are specified correctly, choose <i>Start</i> to start the deployment. The <i>Installation Progress</i> screen is displayed while the deployment is running.</li> <li>• If the parameters displayed on the <i>Start Installation</i> screen are not correct, use the <i>Back</i> button to return to the <i>Defining Patching Parameters</i> screen and correct the parameters.</li> </ul>
	If the installation was successful, the <i>Finished installation</i> message is displayed.
	Choose <i>OK</i> to complete the installation.

<b>IBM eServer iSeries only</b>	
✓	<b>Action</b>
	Make sure that you have performed the steps listed in the <a href="#">Preparation [page 56]</a> section.
	SAPinst GUI starts automatically by displaying the <i>Welcome</i> screen. Select the option <i>Patching Dialog Instances</i> .
	<p>Select the instance profile of the Java dialog instance and choose <i>Next</i>.</p> <p>Normally, the Java dialog instance profile is as follows:</p> <ul style="list-style-type: none"> <li>• For SAP Web AS Java share&gt;:\usr\sap\&lt;SAPSID&gt;\J&lt;instanceno&gt;\SYS\profile\ &lt;SAPSID&gt;_J&lt;instanceno&gt;_&lt;instancehost&gt;</li> <li>• For SAP Web AS ABAP+Java share&gt;:\usr\sap\&lt;SAPSID&gt;\D&lt;instanceno&gt;\SYS\ profile\&lt;SAPSID&gt;_D&lt;instanceno&gt;_&lt;instancehost&gt;</li> </ul>

## 3.4 SAP Web AS Java

	<p>Choose <i>Next</i>.</p> <p>The <i>CD Browser</i> dialog appears.</p>
	<p>Specify the file LABEL.ASC and enter the following information in the field <i>Package Location</i>:</p> <ul style="list-style-type: none"> <li>• For the <i>SAP Installation Master CD</i>: &lt;Path to directory of .SAR files&gt;\SAPINST-CD.</li> <li>• For the <i>J2EE Engine CD</i>: &lt;Path to directory of .SAR files&gt;\J2EE-RUNT-CD</li> </ul>
	<p>Choose <i>OK</i>.</p>
<b>J2EE Add-In</b>	<p>The <i>RFC User Information</i> dialog appears.</p> <p>Enter the following:</p> <ul style="list-style-type: none"> <li>• SAP Web AS RFC user</li> <li>• SAP Web AS RFC password</li> <li>• SAP Web AS RFC client</li> </ul> <p>You have to use a RFC user that has the appropriate rights to access the server add-in. For example, the users SAPJSF and J2EE_ADMIN do not have the required rights. A valid user name would be DDIC.</p>
	<p>Enter the path to the JDK on the iSeries. Make sure that the correct JDK home directory is selected (see the <a href="#">New JDK and VM Settings Required [page 56]</a> section).</p>
	<p>Enter the password for the user &lt;SAPSID&gt;OFR, (for example, if your &lt;SAPSID&gt; is DEV, enter the password for user DEVOFR).</p>
	<p>Parameters of the Kernel library (J2EE Only) and the J2EE native executable library (Add-In and J2EE Only).</p> <p>SAP recommends that you load the libraries from the CD to update them. If you share the libraries with other systems, you have to reapply them to the other systems after the update. To do this, call RMVJ2EELIB and APYJ2EELIB. For a J2EE Only system, also call RMVR3KRN and APYR3KRN.</p> <p>If you do not want to update the library content, select <i>Use existing library</i>.</p> <p>Make sure the given library names are correct: the libraries exist and are used by the system.</p>
	<ul style="list-style-type: none"> <li>• If the parameters displayed in the <i>Start Installation</i> dialog are specified correctly, choose <i>Start</i> to start the deployment. The <i>Installation Progress</i> screen appears.</li> <li>• If the parameters displayed on the <i>Start Installation</i> screen are not correct, use the <i>Back</i> button to return to the <i>Defining Patching Parameters</i> screen and correct the parameters.</li> </ul>
	<p>If the installation was successful, the <i>Finished installation</i> message is displayed.</p>
	<p>Choose <i>OK</i> to complete the installation.</p>



## 3.4.5 Patching in a Java Cluster Environment

### Use

When applying the SP Stack in a cluster environment, both the SAP Web AS Java itself and the applications running on it have to be updated. The procedures differ as follows:

- To update a clustered **SAP Web AS Java** system, you do not have to perform any special patching steps as they are performed automatically by SAPinst.
- To update one or more **applications** running in a Java cluster environment:
  - You have to make sure that there is only one dispatcher node and only one server node running on the central instance of the J2EE Engine at the time the update starts. The *Procedure* section below described how to disable a node/cluster element.
  - You have to make sure that all Java dialog instances in the cluster environment are stopped during the update of the applications.

For more information about the Java cluster architecture, see the [SAP Library \[page 8\]](#) under *SAP NetWeaver → Application Platform (SAP Web Application Server) → Java Technology in SAP Web Application Server → Architecture Manual → Java Cluster Architecture*.

### Procedure

1. Make sure that there is only one dispatcher node and only one server node running on the central instance of the J2EE Engine by disabling all other node/cluster elements. For this, perform the following steps in the Config Tool of the J2EE Engine:
  - a. Select the node in the corresponding instance.
  - b. Select the *General* tab.
  - c. Deselect the *Execute* indicator.



This indicator is selected by default. Its function is to start the node/cluster element automatically when running the J2EE Engine.

- d. Choose *File → Apply*.
- e. Restart the instance to make the changes effective.



After you have installed the patch, you can re-enable nodes/cluster elements by reselecting the *Execute* indicator and restarting the J2EE Engine to make the changes effective again.

For more information, see the [SAP Library \[page 8\]](#) under *SAP NetWeaver → Application Platform (SAP Web Application Server) → Java Technology in SAP Web Application Server → Administration Manual → Server Administration → J2EE Engine Administration Tools → Config Tool*.

2. Make sure that all Java dialog instances are stopped.

## 3.4 SAP Web AS Java



Do not restart Java dialog instances while you are updating applications running on the central instance of the J2EE Engine. This may corrupt the installation of this application.

3. Update all applications running on this clustered J2EE Engine as described in the corresponding section of this documentation.
4. After you have updated all applications running on this clustered J2EE Engine, re-enable any stopped/disabled server nodes.
5. Restart the central instance and all Java dialog instances of this clustered J2EE Engine.

### 3.4.6 Troubleshooting

#### All Platforms

##### Class definition not found

During the deployment with `SAPinst` an error message is displayed. The log file displays the error `class definition not found`.

##### Solution

1. Restart SAP Web AS Java.
2. Continue `SAPinst` using the option `Retry`.

##### SAP J2EE Instance does not start

The SAP J2EE instance does not start and there are two entries for the message server port. This error occurs if you did not choose the default port when you installed SAP Web AS Java SP0.

##### Solution

1. Stop the SAP system with user `<SAPSID>adm`, using the command `stopsap`. If this command does not stop the complete system, stop each instance separately.
2. In the directory `/etc/services`, delete the incorrect standard port (`36<instance_number>`).
3. Change the port in the SDM repository in the directory `/usr/sap/<SAPSID>/<CENTRAL-Instance>/SDM/program/config/ \sdmrepository.sdc`. Look for `msport....`
4. Change the message server port in the instance profile of the SCS instance in the directory `/sapmnt/<SAPSID>/profile/<SAPSID>_<CENTRAL-Instance>_<host>`.
5. Restart the complete system with the user `<SAPSID>adm` using the command `startsap`.

**SAPinst fails during the IGS step**

SAPCAR is not able to extract the new IGS files since the IGS processes are still running.

**Solution**

Stop the IGS processes as follows:

- **On Windows**

Call `sapntkill.exe -INT {PROCESSID_OF_IGSWD}` from the kernel directory `<INSTDIR>\<SID>\SYS\exe\run`.

- **On Unix**

Call the script `stopigs` from the IGS directory `<INSTDIR>/<SID>/igs/bin`.

After the IGS has been stopped, you can continue the update by choosing `Retry`.

**SAPinst hangs during the deployment****Possible causes and solutions**

- The deployment has aborted due to certain error conditions and the timeout period has expired. In this case, you can restart the SAP J2EE Engine manually without exiting from SAPinst. As soon as the SAP J2EE Engine is running, you can continue the update process by choosing `Retry`.
- **MaxDB only:** The data or log volumes are full. Add new data or log volumes to the database. The deployment will continue automatically afterwards.

**SAPinst hangs upon restart of the SAP J2EE Engine****Possible causes and solutions**

- The heap size of the JVM is not sufficient. Increase the heap size of the JVM by using the *Config Tool* and then restart the SAP J2EE Engine.
- There is not enough hard disk space. Free up the affected hard disk and then continue the update process by clicking `Retry`.

**SAPinst requests a particular DVD during the update process****Possible cause and solution**

Archives may have been extracted in the wrong order. Extract the archives in the correct order as described in the section [Preparation \[page 56\]](#) and continue the update process by choosing `Retry`.

## 3.4 SAP Web AS Java

**UNIX and Windows only****Text file busy**

SAPinst generates the following SAPCAR error message in the log file SCS.log:

```
could not open for writing <path> <filename>. Text file busy.
<filename> is, for example, libicudt20b.sl (Unicode on UNIX) or sapevents.dll
(Windows).
```

**MUT-03011 Execution of the command .... finished with return code 28. Output**

When applying SP4, SAPinst fails at the step *SAP System Installation* with the following error:

```
ERROR <date><time> MUT-03011 Execution of the command
".../1/sapinst_exe.5884.1079099457/SAPCAR.exe '-x' '-v' '-g' '-i' '-n' '-R' '..\SCS01\exe' '-f' '...SCS.SAR,'" finished with return code
28. Output:
```

**Solution**

1. Rename the busy file, for example, <file name>old.dll.
2. Continue with SAPinst by choosing *Retry*.
3. Directly after the installation, restart SAP Web AS Java so that it uses the latest version.

If your SAP system is a non-production Unicode system, you can prevent these errors by stopping the SAP system before the update process.

The sapevents.dll file is used by *Windows Management Instrumentation*. Instead of renaming the file, you can simply stop the service, or, if you are working in a non-production SAP system, stop the SAP system before the update process.

**IBM eServer iSeries only****SAP System Installation fails**

If you started the installation of the Support Package in a running system, the installation may abort. In this case, check the log file sapinst\_dev.log in the installation directory. If you find a call of command APYR3KRN at the end of the log file, choose *Retry* or restart the installation, if you have stopped it.

**SAPinst does not start**

If a previous installation has failed and you want to start again, delete the directory C:\Program files\SAPINST. If you do not delete this directory, SAPinst cannot start and issues errors such as control.xml is inconsistent or reports incorrect table entries.

**Phase “Start SAP J2EE Engine”**

If `SAPinst` has reached the phase *Start SAP J2EE Engine* and the status line displays the message *<central instance> stopped* for more than 15 minutes, check the status of the central instance.

**Solution**

1. Log on to the IBM eServer iSeries as user `<SAPSID>OFR`.
2. In the SAP main menu, choose *1 (General SAP Tasks)*.
3. In the next menu, choose *2 (Work with SAP System Jobs)*.

If the central instance has stopped, start it manually with the command **STARTSAP**.

The status line of the `SAPinst` GUI changes and displays information about the server and dispatcher status.

**SAP J2EE Instance Does Not Start**

The SAP J2EE instance does not start and there are two entries for the message server port. This error occurs if you did not choose the default port when you installed the J2EE Engine SP0.

**Solution**

1. Stop the SAP system with the user `<SAPSID>OFR` using the command **STOPSAP**.
2. In your IBM eServer iSeries system, delete the incorrect standard port (`36<instanceno>`).
3. Change the port in the SDM repository in the directory `/usr/sap/<SAPSID>/<CENTRAL-Instance>/SDM/program/config/ \sdmrepository.sdc`. Look for `msport...`
4. Change the message server port in the instance profile of the SCS instance in the directory `/sapmnt/<SAPSID>/profile/<SAPSID>_<CENTRAL-Instance>_<host>`.
5. Restart the complete system with the user `<SAPSID>OFR` by using the command **STARTSAP**.

## 3.5 SAP IGS

SAP Internet Graphics Service (**SAP IGS**) is a server-based engine for generating content (graphical or non-graphical) based on data from an SAP system or an external system. The IGS server is installed with each SAP Web Application Server instance. There are three possible installation configurations:

- The IGS is installed with SAP Web AS (ABAP).
- The IGS is installed with SAP Web AS (ABAP + Java).
- The IGS is installed with SAP Web AS (Java).

### 3.5 SAP IGS

In the first case (without Java), update the IGS instances manually. In the latter two cases (with Java), the IGS will be updated when updating the SAP J2EE Engine using SAPinst. SAPinst update the IGS regardless of whether the IGS is required in the scenarios being patched.



You can download the Support Package for IGS `IGS_<PL>.SAR` from the SAP Service Marketplace [service.sap.com/patches](https://service.sap.com/patches) → Enter by Application Group → SAP Frontend Components → SAP IGS → SAP IGS 6.40 → <OS>

## 3.5.1 Updating IGS on SAP Web AS without Java

To update an IGS server instance on an SAP Web AS ABAP without Java, proceed as follows:

1. Stop the IGS on the server instance that you want to update.
  - **Windows:** Call `sapntkill.exe -INT {PROCESSID_OF_IGSWD}` from the kernel directory `<INSTDIR>\<SID>\SYS\exe\run`.
  - **Unix:** Call the script `stopigs` from the IGS directory `<INSTDIR>/<SID>/igs/bin`.
2. Make a backup of the configuration files in the directory `<INSTDIR>/<SID>/<instance-no>/igs/conf`.
3. In the directory `<INSTDIR>/<SID>/<instance-no>/`, extract the Support Package archive with the command `sapcar -xvf IGS_<PL>.SAR`.
4. Restore the configuration files back to the directory `<INSTDIR>/<SID>/<instance-no>/igs/conf`.
5. Start the IGS server.

## 3.5.2 Updating IGS on SAP Web AS with Java

Updating an IGS server instance on an SAP Web AS with Java (as a stand-alone system or an add-in installation to an existing ABAP system) is done automatically when you update the appropriate Java instance using SAPinst. After the update of the Java instance has been completed, the IGS server instance will be started with the Java instance.

## 4 Patch Tools

This section provides further information about the tools that you need to apply Support Packages.

### 4.1 SAPCAR

**SAPCAR** is used to extract SAR archives. It is installed with each SAP Web AS in the kernel directory and its patch is delivered with the **SAP KERNEL** package (**SAPEXE.SAR**).



In rare cases, for instance when the currently installed **SAPCAR** tool is defective and you cannot extract the Kernel patch itself, you can download the unpackaged version of the **SAPCAR** tool at [service.sap.com/patches](http://service.sap.com/patches) → *Entry by Application Group* → *Additional Components* → **SAPCAR**.

#### Preparation

Download or copy the requested archive into the directory `<sp_directory>`.

#### Using SAPCAR

✓	Action
<b>UNIX only</b>	
	Change to the directory in which you have downloaded or copied the archives: <code>cd /&lt;sp_directory&gt;</code>
	Start SAPCAR to extract the archive to the current directory <code>&lt;sp_directory&gt;</code> : <code>&lt;path to SAPCAR&gt;/sapcar -xvf &lt;file name&gt;.SAR</code>
<b>Windows/IBM eServer iSeries only</b>	
	Change to the directory in which you have downloaded or copied the archives: <code>cd \&lt;sp_directory&gt;</code>
	Start SAPCAR to extract the archive to the current directory <code>&lt;sp_directory&gt;</code> : <code>&lt;path to SAPCAR.EXE&gt;\sapcar.exe -xvf &lt;file name&gt;.SAR</code>
	<p>Directories in the archive will be created as subdirectories of the directory <code>&lt;sp_directory&gt;</code>, by keeping the directory structure of the archive.</p>

## 4.2 Support Package Manager

# 4.2 Support Package Manager

The Support Package Manager (SPAM) handles ABAP Support Packages.



- Before using Support Package Manager, see **SAP Note 672651**.
- We recommend that you always use the latest version of Support Package Manager.

To access the online documentation, proceed as follows:

1. Log on to SAP Web AS with client 000.
2. Start the Support Package Manager by choosing *SAP Menu* → *Tools* → *Maintenance* → *Support Package Manager* or use the transaction code SPAM.
3. Choose *Info* and then *Support Package Manager - Overview* → *Installing Support Packages with the Support Package Manager*.

## 4.3 Software Deployment Manager (SDM)

Java Support Packages are deployed with the SDM. The SDM has already been installed in your system during the installation of *SAP Web AS Java*.

The archive format of a Java Support Package is the Software Component Archive (SCA). An SCA file can contain one or more Software Deployment Archives (SDA).

The SDM can also deploy a single SDA file. This section covers both SCA and SDA deployment.

If archives require that SAP Web AS Java does not run during deployment, then the SDM has to be started for *offline deployment*.

If archives can be deployed while the SAP Web AS Java is running, then the SDM has to be started for *online deployment*.

### 4.3.1 Starting SDM for Deployment

✓	Action
	<p>If SDM is running, stop it by entering the following command:</p> <ul style="list-style-type: none"> <li>• <b>Windows</b> <code>stopServer.bat</code></li> <li>• <b>UNIX</b> <code>stopServer.sh</code></li> </ul>



## 4.3 Software Deployment Manager (SDM)

	<p>Enable SDM to automatically start/stop SAP Web AS Java when deploying:</p> <ul style="list-style-type: none"> <li>• <b>Windows</b> <pre>cd &lt;drive&gt;:\usr\sap\&lt;SAPSID&gt;\&lt;instance&gt;\SDM\program sdm.bat jstartup "mode=standalone" sdm.bat j2eeenginestartstop "mode=automatic" sdm.bat jstartup "mode=integrated" StartServer.bat</pre> </li> <li>• <b>UNIX</b> <pre>cd /usr/sap/&lt;SAPSID&gt;/&lt;instance&gt;/SDM/program sdm.sh jstartup mode=standalone sdm.sh j2eeenginestartstop mode=automatic sdm.sh jstartup mode=integrated StartServer.sh</pre> </li> </ul>
	<p><a href="#">Start SDM GUI Remote Client for Deployment [page 73]</a> and deploy the archives.</p> <p>It is important that you exit the SDM GUI Remote Client after you have deployed all necessary archives.</p>

## 4.3.2 Starting SDM GUI Remote Client for Deployment

✓	Action
	<p>Start the SDM GUI Remote Client. To do this, execute the following file:</p> <ul style="list-style-type: none"> <li>• <b>Windows</b> RemoteGui.bat in directory usr\sap\&lt;SAPSID&gt;\&lt;instance&gt;\SDM\program.</li> <li>• <b>UNIX</b> RemoteGui.sh in directory /usr/sap/&lt;SAPSID&gt;/&lt;instance&gt;/SDM/program.</li> </ul> <p>The SDM GUI Remote Client screen appears.</p>
	<p>Select <i>SDM Gui</i> → <i>Login</i> or the icon <i>Connect to SDM Server</i>.</p> <p>The <i>Enter Login Information for SDM Server</i> dialog box appears</p>
	<p>Enter the following information:</p> <ul style="list-style-type: none"> <li>▪ <i>Password</i> The password for the SDM server</li> <li>▪ <i>User description</i> Optional input</li> <li>▪ <i>Host name</i></li> <li>▪ <i>Port</i> The default port number for instance number 00 is 50018. If your instance number is different from 00, the port number changes to: Port = 50018 + 100 x &lt;instance number&gt;.</li> </ul>

### 4.3 Software Deployment Manager (SDM)

	Choose <i>Login</i> . Now the SDM GUI Remote Client appears.
	Choose the <i>Deployment</i> tab.
	Select <i>Add SCA/SDA to Deployment List (Local File Browser)</i> . A file selection dialog window is displayed.
	Select the SCA or SDA files you want to deploy and choose <i>Choose</i> .
	You can repeat the previous step several times, if there are more SCA or SDA files to deploy.
	Choose <i>Next</i> until a page with the <i>Start</i> button is displayed.
	Choose <i>Start</i> . When the deployment of the SCAs or SDAs files is completed, a message window informs you that the deployment was successful.
	Choose <i>Confirm</i> to return to the SDM GUI Remote Client.
	To log off from the SDM server and exit the SDM GUI Remote Client, select <i>Deployment</i> → <i>Exit</i> or choose the <i>Exit</i> icon.

### 4.3.3 Undeployment with SDM

✓	Action
	Start the SDM GUI Remote Client. To do this, execute the following file: <ul style="list-style-type: none"> <li>Windows RemoteGui.bat in directory   \usr\sap\<sapsid&gt;\&lt;instance&gt;\sdm\program.< li=""> <li>UNIX RemoteGui.sh in directory /usr/sap/&lt;SAPSID&gt;/&lt;instance&gt;/SDM/program.</li> </sapsid&gt;\&lt;instance&gt;\sdm\program.<></li></ul> The SDM GUI Remote Client screen appears.
	Select <i>SDM Gui</i> → <i>Login</i> or the icon <i>Connect to SDM Server</i> . The <i>Enter Login Information for SDM Server</i> dialog box appears
	Enter the following information: <ul style="list-style-type: none"> <li>▪ <i>Password</i> The password for the SDM server</li> <li>▪ <i>User description</i> Optional input</li> <li>▪ <i>Host name</i></li> <li>▪ <i>Port</i> The default port number for instance number 00 is 50018. If your instance number is different from 00, the port number changes to: Port = 50018 + 100 x &lt;instance number&gt;.</li> </ul>
	Choose <i>Login</i> . Now the SDM GUI Remote Client appears.
	Choose the <i>Undeployment</i> tab.

	<p>The list on the left-hand side shows all SDAs that are deployed.</p> <p>Select the SDAs that you want to remove from the J2EE Engine or file system, and choose <i>Select SDA for Undeployment</i> to move them to the window <i>SDAs Selected for Undeployment</i>.</p> <p>The SDM checks for any dependencies that the selected SDAs have. If the SDM does not find any dependencies, it releases the SDA for undeployment.</p>
	<p>Choose <i>Start Undeployment</i>. The SDM removes the selected SDAs from the J2EE Engine or file system.</p>
	<p>Choose <i>Confirm</i> to return to the SDM GUI Remote Client.</p>
	<p>To log off from the SDM server and exit the SDM GUI Remote Client, select <i>Undeployment</i> → <i>Exit</i> or choose the <i>Exit</i> icon.</p>

## 4.4 SAPInst

### 4.4.1 Preparing the System for SAPInst GUI

#### Use



Since IBM eServer iSeries does not provide a graphical user interface (GUI), you must install a Support Package remotely from a Windows host. You need at least the Microsoft Windows 2003 operating system.

The installation tool SAPInst uses the Java-based graphical user interface SAPInst GUI. Preparing the system for SAPInst GUI comprises the following actions:

- Checking your Java Runtime Environment (JRE), because the JRE could not be integrated into the SAPInst GUI executable for all platforms due to licensing issues.



You can run the SAPInst GUI on the installation host or, if required, you can control an installation using a standalone SAPInst GUI on a separate Windows or UNIX host.

The standalone SAPInst GUI enables you to perform the installation on a remote host while monitoring it with the SAPInst GUI from a local host (see [Controlling an SAPInst Installation from a Remote Machine \[page 78\]](#)). You can also start a standalone SAPInst GUI, if you stopped the SAPInst GUI by choosing *Logoff* during an installation (see [Starting SAPInst GUI on the Local Host \[page 79\]](#)).

- Setting the `DISPLAY` variable, if you are installing on UNIX.

#### Procedure

1. Make sure that a correct JRE version is installed on every host on which you want to run the SAPInst GUI.

## 4.4 SAPinst

SAPinst GUI requires the JRE that is released with the latest SAP NetWeaver release. You can find the released JRE (as part of a released JDK) on SAP Service Marketplace as follows:

- a) Go to the Internet address [service.sap.com/platforms](http://service.sap.com/platforms) and choose *Product Availability Matrix* (a new Window opens).
- b) Choose *SAP NetWeaver* → *SAP NetWeaver<Release>*.
- c) Choose the tab *JSE Platforms*.



- The SAPinst GUI runs on the **same** JDK version as SAP NetWeaver.
- JDK is **not** part of the SAP shipment.
- To check the version of the installed JDK, enter:  
`java -version`
- If you have more than one Java Virtual Machine (JVM) installed in your system (for example, you have two JDKs with different versions installed), make sure that the `JAVA_HOME` environment variable (on UNIX: for user `root`) is set to the correct `<JAVA_HOME>` directory.

### 2. UNIX only

Make sure that your `DISPLAY` environment variable is set to `<host_name>:0.0`, where `<host_name>` is the host on which the SAPinst GUI is to be displayed.

For information about how to set environment variables, see your operating system documentation.

Make sure that `umask` is set to 022 for the user `root`, using the command `umask 022` as `root`.

## 4.4.2 Running SAPinst on UNIX

✓	Action
	Log on to your host as a user with root permissions.
	Change to the SAPinst directory with the following command: <code>cd &lt;sp_directory&gt;/SAPINST/&lt;OS_DIR&gt;</code>
	Start SAPinst with the following command: <code>./sapinst</code>



- SAPinst normally creates the installation directory `<sapinst_inst_dir>` directly under the temporary directory (`$TEMP` or `$TMP` or `/tmp`). Therefore make sure that your operating system is configured not to delete the temporary directory and its subdirectories when the system is rebooted.
- You need at least 300 MB free space in your temporary directory for each installation service.
- If SAPinst does not find any temporary directories, the installation terminates with the error `FCO-00058` on UNIX.



If you want SAPinst to use an installation directory other than `<sapinst_instdir>` directly under the temporary directory, proceed as follows:

1. Create an installation directory of your choice for SAPinst with sufficient free space (at least 300 MB) and permissions 777.
2. Change to this installation directory.
3. Enter the following command to run the SAPinst:  
`<sp_directory>/SAPINST/<OS_DIR>/sapinst`



During the installation, SAPinst uses the port 21212 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>
```

### 4.4.3 Running SAPinst on Windows

✓	Action
	Log on to your host as a user who is a member of the local administration group.
	Change to the SAPinst directory with the following command: <code>cd &lt;sp_directory&gt;\SAPINST\&lt;OS_DIR&gt;</code>
	Start SAPinst with the following command: <code>sapinst.exe</code>



By default, SAPinst creates the installation directory `<sapinst_instdir>` under the following path:

```
<drive>:\Program Files\
```

Exception:

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


If SAPinst cannot find the temporary directory, the installation terminates with the error `FCO-00057`.

### 4.4.4 SAPinst GUI Handling

The following buttons are available on the various SAPinst GUI dialog screens:

Pushbutton	Meaning
<i>Back</i>	Displays the previous dialog screen.
<i>Next</i>	Displays the next dialog screen.

## 4.4 SAPinst

<i>Cancel</i>	<p>Cancels the installation with the following options:</p> <ul style="list-style-type: none"> <li>– <i>Stop</i> Stops the installation and leaves the installation files in their current state. This means that you can continue the installation later from this point.</li> <li>– <i>Reset</i> Resets all installation input files. All files in the installation directory are removed from the system and no log files are saved. This means that you must start the installation again from scratch.</li> </ul>
<i>Logoff</i>	<p>Cancels the connection to the SAPinst GUI only. The SAPinst server keeps on running.</p> <div style="text-align: center;">  </div> <p>You have to log off during the installation from the host where you are controlling the installation with SAPinst GUI. Then you can connect to the running installation from another host. Be aware that you need the SAPinst executables on the other host to do this. For more information about running a standalone SAPinst GUI, see <a href="#">Starting SAPinst GUI on the Local Host [page 79]</a>.</p>
<i>View Log</i>	Displays the content of the <code>sapinst.log</code> file during the installation.
<i>Retry</i>	Performs the installation step again (if an error has occurred).
<i>Stop</i>	Stops the installation and leaves the installation files in their current state. This means that you can continue the installation later from this point.
<i>Reset</i>	<p>Resets all installation input files. All files in the installation directory are removed from the system. No backup is available.</p> <p>This means that you must start the installation from the beginning again.</p>

## 4.4.5 Controlling an SAPinst Installation from a Remote Machine

You can run the SAPinst GUI in standalone mode to perform a remote installation.

This enables you to install an SAP system on another host (the remote host) while monitoring the installation with the SAPinst GUI on your local Windows or UNIX computer (the local host).



If you run the SAPinst GUI on a Windows host to install the SAP Web AS Java Support Packages on an IBM eServer iSeries, see [Running SAPinst for IBM eServer iSeries \[page 80\]](#).

### Prerequisites

✓	Action
---	--------

	Make sure that you have performed the preparation activities for your local host (SAPinst GUI host) and your remote host (see <a href="#">Preparing the System for SAPinst GUI [page 75]</a> ).
	Both computers are on the LAN and can ping each other. To test this, proceed as follows: <ul style="list-style-type: none"> <li>• Log on to your remote host and enter the command <code>ping &lt;local host&gt;</code>.</li> <li>• Log on to the local host and enter the command <code>ping &lt;remote host&gt;</code>.</li> </ul>

## Starting SAPinst on the Remote Host

Perform the following steps to start the SAPinst server on your **remote** host. The remote host is the host where you want to install the SAP software.

✓	Action
	Log on to your remote host.
	Enter the following commands: <ul style="list-style-type: none"> <li>• <b>Windows</b> <pre>cd &lt;sp_directory&gt;\SAPinst\NT\I386 or IA64 sapinst SAPINST_START_GUI=false</pre> </li> <li>• <b>UNIX</b> <pre>cd &lt;sp_directory&gt;/SAPINST/&lt;OS_DIR&gt;/ ./sapinst SAPINST_START_GUI=false</pre> </li> </ul> <p>SAPinst starts and waits for the connection to the SAPinst GUI. SAPinst informs you about its state with the following message:</p> <pre>guiengine: no GUI connected; waiting for a connection on host &lt;host_name&gt;, port &lt;port_number&gt; to continue with the installation</pre>

## Starting SAPinst GUI on the Local Host

Perform the following steps to start the SAPinst GUI in standalone mode on your **local** host:

✓	Action
	Log on to your local host.

## 4.4 SAPinst

	<p>Proceed as follows:</p> <ul style="list-style-type: none"> <li>• <b>UNIX</b> Run the script <code>startInstGui.sh</code> from the following path: <code>&lt;sp_directory&gt;/SAPINST/&lt;OS_DIR&gt;</code></li> <li>• <b>Windows</b> Run <code>startinstgui.bat</code> from the following path: <code>&lt;sp_directory&gt;\SAPinst\&lt;OS_DIR&gt;</code></li> </ul> <p>The <i>SAP Installation GUI Connection</i> dialog appears.</p>
	<p>Enter <i>Installation Host</i> and <i>Port</i> used by <i>SAPinst</i> on the remote host and choose <i>OK</i>.</p> <p><i>SAPinst</i> GUI now connects to the <i>SAPinst</i> server and the first dialog of the installation appears.</p>

## 4.4.6 Running SAPinst for IBM eServer iSeries

Perform the following steps to run *SAPinst* on a Windows host to install SAP Web AS Java Support Packages in an IBM eServer iSeries system:

### Prerequisites

✓	Action
	<p>Make sure that <i>TMKSVR</i> is up and running. Use the following command: <code>WRKACTJOB SBS (TMKSVR&lt;nn&gt;)</code> where <code>&lt;nn&gt;</code> is the number you chose during the setup of the <i>TMKSVR</i> You should now see a <i>DISPATCH</i> job.</p>
	<p>You have prepared the users required for the installation. Reuse the accounts of the last installation of an SAP component. For more information, see the documentation <i>SAP &lt;component&gt;: IBM eServer iSeries</i>, section "Preparing a Windows User Account and iSeries User Profile".</p>
	<p>Make sure that the <code>JAVA_HOME</code> environment variable is set correctly on your Windows host.</p>

### Procedure

✓	Action
	Log on to the Windows host as the installation user.



From the directory in which the `SAPINST<SP number>.SAR` and `CTRL<database><SP number>.SAR` have been unpacked, go to the subdirectory `SAPINST-CD\SAPINST\AS400\OS400` and double-click the `sapinst.exe` file.

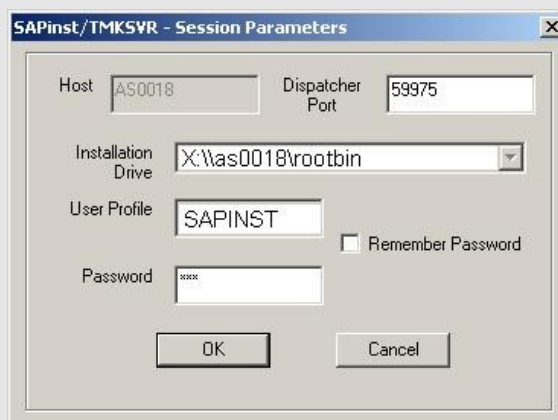


SAPinst uses the ports 21212 and 21213 during the installation for communication with the SAPinst GUI. You get an error message if one of these ports is already in use. In this case, you must do the following:

1. Open a command prompt.
2. Change to your `<SAPinst_INSTDIR>` directory and enter the following command:  
`<Mapped_Drive>:\<Copied_SAR_Files_Dir>\SAPINST\AS400\OS400\sapinst.exe SAPINST_DIALOG_PORT=<port>`

`<port>` is an unused port on your Windows installation host.

The *SAPinst/TMKSVR – Session Parameters* dialog box appears and prompts you for the target IBM eServer iSeries parameters. Enter your values.



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

### 4.4.7 Handling the CD Browser Dialog

SAPinst displays this dialog in the following situations:

- SAPinst wants to check the availability of the software package.

This is indicated by the flag *Check Location* displayed on the CD Browser Window.

Select one of the following actions:

Action	Result
You do not enter a package location and leave the <i>Check Location</i> flag deselected.	SAPinst skips the check and you can continue the installation procedure. However, SAPinst asks later for the missing LABEL.ASC (see step 2 below).

## 4.4 SAPinst

You enter the path of the package location and leave the <i>Check Location</i> flag deselected.	SAPinst skips the check of the label location, but your entered package locations are used later for the installation. SAPinst only asks again for a missing LABEL . ASC if the package location is incorrect (see step 2 below).
You enter the path of the package location and select the <i>Check Package Location</i> flag.	SAPinst checks the label location and displays an error message if the location is incorrect. If all locations are correct, SAPinst does not ask again for the LABEL . ASC files later.

- SAPinst cannot find the correct LABEL . ASC but needs the location of the software to process the installation now.

You can recognize this situation by the missing *Check Location* flag on the CD Browser window. You now have to enter the path to the correct LABEL . ASC. Otherwise, the installation cannot continue.

Additionally, you can copy the installation package by entering a location in the *Copy Package to* column.


## 4.4.8 Continuing an Interrupted Installation with SAPinst

SAPinst does not abort the installation in error situations. Therefore, you can continue an interrupted installation in the following situations:

- If you have not canceled the installation  
The error dialog box is still displayed and SAPinst is waiting for your input. You proceed as follows:  
In the error dialog box, you choose *Retry*.  
SAPinst now retries the installation step.
- If you have already canceled the installation

You have the following options:

Option	Meaning
<i>Stop</i>	Since SAPinst records the installation progress in the <code>keydb.xml</code> file, you can continue the installation from the failed step without repeating previous steps. During this procedure, you can reset the installation, too, if required.

<b>Reset</b>	<p>You must restart from the beginning, that is, with the default <code>keydb.xml</code> file as delivered.</p> <div style="text-align: center;">  </div> <p>In some cases, you must uninstall components that have already been installed, before repeating the installation from the beginning. For example, this applies to an SAP system installation. For more information, see the description on how to uninstall a component in the corresponding installation guide.</p>
--------------	--

To continue a stopped installation, you have to solve the problem that caused the error situation first. Then you can continue with following steps:

✓	<b>Action</b>
	Log on to your installation host.
<b>UNIX</b>	<p>Run the script <code>sapinst</code> from the following path:</p> <p><code>&lt;sp_directory&gt;/SAPINST/&lt;OS_DIR&gt;/</code></p>
<b>Windows</b>	<p>Run the script <code>sapinst</code> from the following path:</p> <p><code>&lt;sp_directory&gt;/SAPINST/&lt;OS_DIR&gt;/</code></p>
<b>On Windows as remote GUI for IBM eServer iSeries</b>	<p>Run <code>sapinst.exe</code> from the following path:</p> <p><code>&lt;sp_directory&gt;\SAPinst\AS400\OS400</code></p>
	<b>All Platforms</b>
	From the tree structure in the <i>Welcome</i> screen, select the option that you want to continue with and choose <i>Next</i> .
	You can choose from the following options:
<b>Option</b>	<b>Behavior of SAPinst</b>
<i>Run a new Installation</i>	<p>The installation <b>is not continued</b>.</p> <p>Instead, SAPinst deletes the installation directory mentioned here for the chosen installation service and starts the installation from the beginning.</p> <p>The log files from the old installation are put into a backup directory with the following naming convention:</p> <p><code>&lt;log_day_month_year_hours_minutes_seconds&gt;</code>            (For example, <code>log_01_Oct_2003_13_47_56</code>).</p>
<i>Continue old installation</i>	The installation of the installation service mentioned here <b>is continued</b> from the point of failure.