

Support Package Stack Guide



SAP NetWeaver™ '04

Support Package Stack 02

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Typographic Conventions

Type Style	Description
<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
Example text	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.
Example text	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, <i>F2</i> or <i>ENTER</i> .

Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Additional icons are used in SAP Library 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 *SAP Library*.

Variables

Variables	Description
<SAPSID> <sapsid>	SAP system ID.
<database>	Name of database.
<sapinst _instdir>	Installation directory for the SAP installation tool SAPInst.
<sp _directory>	Temporary directory in which the archives of the SP are downloaded or copied
<OS>	Operating system.
<OS_DIR>	OS dependent directory. The directory has the name of the OS type and a subfolder according to the OS version. Example: Sun OS 64bit: /UNIX/SUNOS64 Example: Windows 2000: /NT/I386
<SP>	Number of Support Package.
<PL>	Number of SP Patch Level
<REL>	Number of Release
<LOCALE>	Language definition (for example: German locale is <i>_de</i>).

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1 Overview

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

This Support Package Guide is updated on a regular basis on SAP Service Marketplace at:

<http://service.sap.com/instguidesnw04> → Operations

Information about timelines of the SP Stacks can be found on SAP Service Marketplace at:

<http://service.sap.com/NetWeaver> → SAP NetWeaver '04 → Time Schedule

Release Notes

Release	Description
1.02	Minor changes
1.01	Minor changes
1.00	Initial release

2 Applying Support Packages to SAP NetWeaver `04 Scenarios

2.1 Overview

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.

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. The 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 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.
- ❑ *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).

2.2 SAP NetWeaver '04 Patchable Components

This section provides an overview of which technical scenario of SAP NetWeaver uses which component.

Technical Scenario / Software Component Matrix
 (x = mandatory / o = optional / blank = n/a)

	Technical Scenarios								
	SAP BW 3.5	BI Information Broadcasting	SAP EP 6.0 on 6.40	SAP XI 3.0	SAP MI 2.5	SAP KW 7.0	NW Development ABAP	NW Development Java	NW Development Adobe
SAP NetWeaver '04 Patchable Components									
SAP NetWeaver '04 ABAP Stack									
SAP Basis 6.40	x	x		x	x	x	x		x
SAP ABA 6.40	x	x			x	x	x		x
PI_BASIS 2004	x	x							
SAP BW 3.50	x	x							
BI Content 3.5.1 Add-On	x	x							
Kernel									
SAP Kernel 6.40	x	x		x	x	x	x		x
SAP NetWeaver '04 Java Stack									
Adobe Document Services 1.00									x
BW Universal Data Integration 350	o	o							
EP 6.0 on Web AS 6.40 - Portal Platform		x	x						
EP 6.0 on Web AS 6.40 - Content Management + Collaboration		x	o						
JDI 6.30								o	
KW Internet Knowledge Servlet 1.00						x			
KW PAW 7.0						o			
SAP MI Client 2.5					x				
SAP NetWeaver Developer Studio 2.0								x	x
SAP Web AS Java 6.40	o	x	x	x	x	x	x	x	x

	Technical Scenarios								
	SAP BW 3.5	BI Information Broadcasting	SAP EP 6.0 on 6.40	SAP XI 3.0	SAP MI 2.5	SAP KW 7.0	NW Development ABAP	NW Development Java	NW Development Adobe
SAP NetWeaver '04 Patchable Components									
SAP NetWeaver '04 Java Stack - continued									
XI Adapter Framework 3.0				x					
XI Adapter Framework Core 3.0				x					
XI Connectivity SE.30				o					
XI Content SAP_BASIS 6.40				x					
XI PCK 3.0				o					
XI Tools 3.0				x					
Non-Java Binaries									
Content Server 6.30 for SAP KW						x			
Gateway 6.40 for SAP KW						x			
TREX 6.1	o	x	o			x			
Front End									
SAP GUI for Java 6.30		x	x						
SAP GUI for Windows 6.20	x	x	x	x		x			x
SAP IGS 6.40	x								
SAP KW ITS 6.20						x			
SAP KW PAW Proctor and Player 7.0						o			

2.3 Support Package Stack 02

Every SAP NetWeaver '04 component provides Support Packages. The Support Packages are combined to a Support Package Stack. Support Packages for ABAP components have to be applied sequentially while Support Packages for non-ABAP components (for example, Java and C/C++) are cumulative. Every Support Package Stack must be applied shortly after it is available.

Support Package Patches are provided to correct urgent problems and are based on the latest Support Package Stack.

The SAP NetWeaver '04 Support Package Stacks can be downloaded from:

<http://service.sap.com/patches> → *SAP NetWeaver* → *SAP NetWeaver '04*

When you select NetWeaver '04 on the left hand side of the page, the Support Package Stack page is displayed that contains a list of all NetWeaver components. To see all relevant components for the scenario you are using, select the scenario in the `Scenario` drop down list box.

SAP NetWeaver '04 Components	SP	Package Name
SAP NetWeaver '04 ABAP Stack		
SAP Basis 6.40	2	SAPKB64002
SAP ABA 6.40	2	SAPKA64002
PI_BASIS 2004	2	SAPKIPYI62
SAP BW 3.50	2	SAPKW35002
Kernel		
SAP Kernel 6.40	= 13	
SAP NetWeaver '04 Java Stack		
Adobe Document Services	1	ADS_SAP01_<PL>.SCA
BW Universal Data Integration 350	2	BIMMR02_<PL>.SCA
	2	BIUDI02_<PL>.SCA
EP Portal Platform 6.0_640 OS-independent Tools OS-independent part of EP OS-dependent SAPinst OS-dependent CTRL - Files	4	EP6TOOLS04_<PL>.SAR
	4	EP6PORTAL04_<PL>.SAR
	4	SAPINST04_<PL>.SAR
	4	EP6CTRL04_<PL>.SAR
EP 6.0 on SAP Web AS 6.40 – Content Management + Collaboration		New Installation
JDI 6.30	5	SAPBUILDT05_<PL>.SCA
	5	SAPDEVINF05_<PL>.SCA
	5	SAPDEVINFF05_<PL>.SCA
KW Internet Knowledge Servlet 1.00	2	KMKWJIKS02_<PL>.SCA

SAP MI Client 2.5		
Win 32	2	Setup.exe
Win CE	2	MI25<MIRuntime><LOCALE>.CAB
	2	CrEme<version>_<processor>_<OS Version>_<OS>_minimal.CAB
SAP NetWeaver Developer Studio 2.0	5	JIDE05_<PL>.SAR
SAP Web AS Java 6.40 (SAP J2EE Engine)		
OS-independent parts of SAP Web AS Java	5	J2EERT05_<PL>.SAR
OS-dependent SAPinst	5	SAPINST05_<PL>.SAR
OS-dependent CTRL -Files	5	CTRL<database>05_<PL>.SAR
OS-dependent part of SAP Web AS	5	J2EERTOS05_<PL>.SAR
XI Adapter Framework 3.0	2	SAPXIAF02_<PL>.SCA
XI Adapter Framework Core 3.0	2	SAPXIACF02_<PL>.SCA
XI Connectivity SE.30	2	SAPXICONS02_<PL>.SCA
XI Content SAP_BASIS 6.40	2	SAPBASIS02_<PL>.ZIP
XI PCK 3.0	2	SAPXIPCK02_<PL>.SCA
XI Tools 3.0	2	SAPXITool02_<PL>.SCA
Non-Java Binaries		
TREX 6.1		
OS-independent TREX application files	2	TREX6102_<PL>-<tech.Key>.SAR
OS-dependent SAPinst	2	TXSAPINST02_<PL>-<tech.Key>.SAR
OS-dependent part of TREX	2	TREX61OS02_<PL>-<tech.Key>.SAR
KW SAP Content Server 6.30		latest Support Package
Front End		
SAP IGS 6.40		
SAP GUI for Java 6.30		≥ Comp. 6, Revision 4
SAP GUI for Windows 6.20		≥ Comp. 6, PL 44

Components that are not listed here do not have to apply a Support Package.

The following section describes how the Support Package is applied to a component in a SAP NetWeaver '04 scenario.

2.4 SAP BW 3.5

2.4.1 Involved Components

	Tool
BW Server	
SAP Kernel 6.40	Kernel
SAP Basis 6.40	Support Package Manager
SAP ABA 6.40	Support Package Manager
PI_BASIS 2004	Support Package Manager
SAP BW 3.50	Support Package Manager
BW Universal Data Integration (UDI)	
BW Universal Data Integration 350	SDM
SAP Web AS Java 6.40	SAPInst
TREX Server	
TREX 6.1	SAPInst

2.4.2 Preparation

✓	Action
	Read the SAP Notes mentioned in the following table.

SAP Note	Title
673140	SAP BW Java Components Installation for SAP Web AS 6.40
693362	SAP BW News
709140	Recommended VM Settings for the Web AS 630/640 SP4

2.4.3 Procedure


2.4.3.1 BW Server

✓	Action
	Patch the SAP Kernel 6.40 [see chapter 3.1]
	Import Support Package for SAP Basis 6.40 [see chapter 4.2]
	Import Support Package for SAP ABA 6.40 [see chapter 4.2]
	Import Support Package for PI_BASIS 2004 [see chapter 4.2]
	Import Support Package for SAP BW 3.50 [see chapter 4.2]

2.4.3.2 BW Universal Data Integration 350 (UDI).

Following steps are only necessary if you use BW UDI.

Preparation

✓	Action
	<p>Only if a BI Connector has already been configured:</p> <p> Connection properties will be overwritten when the Support Package is imported.</p> <p>If you have already configured or cloned one or more of the BI Connectors in your BW 3.5 SP0 installation, you have to make a record of your connector properties. To do that, start the Visual Administrator. Choose the following:</p> <p style="padding-left: 40px;"><i>Services</i> → <i>Connector Container Service</i></p> <p>Select the Connector and write down (or make a screenshot) of the <code>Managed Connection Factory</code> properties.</p>

Procedure

✓	Action
	Apply Support Package for SAP Web AS Java 6.40. [see chapter 3.4]
	<p>Start the Visual Administrator. Choose the following:</p> <p style="padding-left: 40px;"><i>Services</i> → <i>Configuration Adapter Service</i> → <i>HttpHosts</i> → <i>default</i> → <i>WebApplications</i></p> <p>Delete the entry "<code>mnr=true</code>"</p>
	Deploy the archive <code>BIMMR<SP>_<PL>.SCA</code> with SDM offline deployment [see chapter 4.3.1]
	Deploy the archive <code>BIUDI<SP>_<PL>.SCA</code> with SDM online deployment [see chapter 4.3.2]

Restoring Configuration Properties (See Preparation):

✓	Action
	<p>Only if a BI Connector has already been configured:</p> <p>Start the Visual Administrator. Choose the following:</p> <p style="padding-left: 40px;"><i>Services</i> → <i>Connector Container Service</i></p> <p>Select the Connector you want to use and change the <code>Managed Connection Factory</code> properties back to the values you have recorded.</p> <p>For the BI JDBC Connector, you have to add the loader reference to the JDBC driver again. Cloned connectors have to be recreated. Select the Connector and write down (or make a screenshot) of the <code>Managed Connection Factory</code> properties.</p>

2.5 BI Information Broadcasting

After the installation of the BI Information Broadcasting scenario, apply the Support Packages for SAP BW [see [chapter 2.4](#)] and SAP EP6.0 on Web AS 6.40 [see [chapter 2.6](#)].

2.6 SAP EP 6.0 on Web AS 6.4 0


2.6.1 Involved Components

	Tool
EP Server	
SAP Web AS Java 6.40	SAPInst
EP Portal Platform 6.0_640	SAPInst
Content Management + Collaboration	New Installation
TREX Server	
TREX 6.1	SAPInst

2.6.2 Prerequisites

✓	Action
	You have successfully installed the Portal Platform SP3. For details refer to guide <i>Installation of SAP Enterprise Portal SP4 on Web AS 6.40</i> , located on the SAP Service Marketplace, at: service.sap.com/instguidesNW04 → <i>Installation</i> .
	You have successfully logged on to EP 6.0 SP3.


2.6.3 Preparation

✓	Action
	Prepare the system for SAPInst GUI, see chapter 4.4.1 for details.
	Read SAP Note 716749 - Installing EP 6.0 SP4 for SAP Enterprise Portal SP3 .
	<p>If you have created customer themes, you need to remove them from the portal before running the patch. To preserve them, you must export the customer themes before running the patch, and import them back after applying it.</p> <p>Proceed as follows:</p> <ol style="list-style-type: none"> Export all customer themes from EP 6.0 SP3: From the portal administrator UI, use System Administration → Portal Display → Theme Archive. <div style="background-color: #f0f0f0; padding: 5px; margin: 5px 0;">  <p>Keep the exported file in a prominent place. You'll need to import it after applying the patch.</p> </div> <ol style="list-style-type: none"> Delete all customer themes from the portal: From the portal administrator UI, use System Administration → Portal Display → Theme Administration.

Windows	
Setting Windows Security Policies	
✓	Action
	Access the Local Security Policy dialog as follows: <i>Windows Start menu → Programs → Administrative Tools → Local Security Policy</i>
	Choose <i>Local Policies → User Rights Assignments</i> .
	Assign the following rights to the user who performs the SAPinst installation: <ul style="list-style-type: none"> • Act as part of the operating system • Increase quotas (Win 2000) or Adjust memory quotas for a process (Win 2003) • Replace a process-level token
	To apply the changes, log off and then log on again.

2.6.4 Procedure

✓	Action
	Apply Support Package for SAP Web AS Java 6.40. [see chapter 3.4] .
	Download Portal Platform SP4 archives: <ol style="list-style-type: none"> 1. Access the Patch software download area on Sap Service Marketplace at: http://service.sap.com/sp-stacks → <i>SAP SP Stacks Information and Download</i> → <i>SAP NetWeaver '04</i> or http://service.sap.com/patches → <i>SAP NetWeaver</i> → <i>SAP NetWeaver '04</i> 2. Navigate to: <i>Binary Patches</i> → <i>Portal Platform 6.0_640</i> → <i>OS independent</i> 3. Download the following files: <ul style="list-style-type: none"> ○ EP6TOOLS04_0.SAR ○ EP6PORTAL04_0.SAR 4. Navigate to: <i>Binary Patches</i> → <i>Portal Platform 6.0_640</i> → <OS> 5. Download the SAR files specific to your platform: <ul style="list-style-type: none"> ○ EP6CTRL04_0.SAR ○ SAPINST04_0.SAR
	Extract the Portal Platform SP4 archives with SAPCAR [see chapter 4.1] .

✓	Action
	Log on to your host as a user who is a member of the local administration group
	Start the SAPinst GUI. [UNIX: see chapter 4.4.2]; [Windows: see chapter 4.4.3]
	<p>Enter the details for the SAP Web AS Java on which the EP is installed and the Support Package should be applied, in the screen <i>Specifying the SAP Web AS Java System and J2EE Administrator Account</i>, perform the following:</p> <ol style="list-style-type: none"> a. From the <i>SAP Web AS Java System</i> drop-down list, choose the system to apply the Support Package. b. In the <i>Administrator</i> account details, enter the name and password of the user with Administrator privileges on the SAP Web AS Java onto which you are installing the portal. These are the details for the <i>SAP J2EE Administrator Account</i>, defined during SAP Web AS Java installation. <p>The default is:</p> <ul style="list-style-type: none"> ▪ User <code>Administrator</code> with a password with a minimum of five characters. ▪ For Add-In installations the default is <code>j2ee_admin</code>.
	Choose <i>Next</i> .
	<p>Windows only</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"> a. 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 <i>SAP System Administrator Account</i>, defined during J2EE installation. b. If this user is a Window domain user, enter the Windows domain name. Otherwise, enter the local machine host name. <p>Choose <i>Next</i>.</p>
	On the <i>Start Installation</i> screen, review your input. Click <i>Start</i> to start the installation, or <i>Back</i> to change the values.
	<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> <p>If SAPinst fails during installation, see chapter 4.4.7 (Handling the CD Browser Dialog).</p> <p>After the <code>The installation finished successfully</code> message 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>
	Complete the Support Package installation. [see chapter 2.6.5] .

2.6.5 Completing the EP Support Package Installation

2.6.5.1 Logging On to the Portal

To verify that the Support Package has been installed successfully, log on to the portal.

✓	Action
	To verify that the Support Package has been installed successfully, enter the portal URL and log on to the portal.
	Verify that your portal content is available, and that you can perform administrative tasks.
	If you exported customer themes before running the patch, import them now. To do so, import all customer themes into the upgraded portal: From the portal administrator UI, use <i>System Administration</i> → <i>Portal Display</i> → <i>Theme Archive</i> .
	Refer SAP Note 723778 for information on available Support Packages Patches and install it according to the instructions in the note.
	Install <i>Content Management & Collaboration</i> . For details refer to the guide, <i>Installation of SAP Enterprise Portal SP4 on Web AS 6.40</i> , located on the SAP Service Marketplace, at: service.sap.com/instguidesNW04 → <i>Installation</i> .

2.7 SAP XI 3.0

2.7.1 Involved Components



The following components **must** have the same Support Package Level (the Support Package *Patch* Level can be different):

XI 3.0 Server

- SAP Basis 6.40
- XI Adapter Framework Core 3.0
- XI Adapter Framework 3.0
- XI Tools 3.0

XI Adapter Engine (Java Proxy Runtime)

- XI Adapter Framework Core 3.0
- XI Adapter Framework 3.0

XI Partner Connectivity Kit

- XI Adapter Framework Core 3.0
- XI Adapter Framework 3.0
- XI PCK 3.0

	Tool
XI 3.0 Server	
SAP Kernel 6.40 Unicode	Kernel
SAP Basis 6.40	Support Package Manager
SAP Web AS Java 6.40	SAPInst
XI Adapter Framework 3.0	SDM
XI Adapter Framework Core 3.0	SDM
XI Content SAP_BASIS 6.40	SDM
XI Tools 3.0	SDM
XI Adapter Engine / JPR	
SAP Web AS Java 6.40	SAPInst
XI Adapter Framework 3.0	SDM
XI Adapter Framework Core 3.0	SDM
XI Partner Connectivity Kit	
SAP Web AS Java 6.40	SAPInst
XI Adapter Framework 3.0	SDM
XI Adapter Framework Core 3.0	SDM
XI PCK 3.0	SDM

System Landscape Directory (SLD)	
SAP Kernel 6.40	Kernel
SAP Basis 6.40	Support Package Manager
SAP Web AS Java 6.40	SAPinst
Update SLD content	File Upload
XI Plain J2SE Adapter Engine	
XI Connectivity SE.30	SDM

2.7.2 Preparation

✓	Action
	Back up your systems. Refer to the <i>Technical Operation Manual for NetWeaver '04</i> .
	Read the SAP Notes mentioned in the following table.

SAP Note	Title
664107	SAP Exchange Infrastructure 3.0 Installation
705541	Importing XI Content
669669	Update of the SAP Component Repository
439915	Exchange Infrastructure Integration Server 2.00
If you use BPM	
716697	XI: Generation of objects.
718735	XI: Message class when you sending a message from the BPE
710445	XI: Processing a message after synchronous sending

2.7.3 Procedure

2.7.3.1 XI 3.0 Server

✓	Action
	Patch the SAP Kernel 6.40 [see chapter 3.1]
	Import Support Package for SAP Basis 6.40 [see chapter 4.2]
	Apply Support Package for SAP Web AS Java 6.40. [see chapter 3.4]
	Deploy the archive SAPXIAFC<SP>_<PL>.sca (<i>XI Adapter Framework Core 3.0</i>) with SDM offline deployment [see chapter 4.3.1].
	Check whether the SAP Web AS Java is up and running; for example, by starting a Web browser and entering the URL <code>http://<j2ee-server>:<j2ee-http-port></code> .

	<p>Deploy the following archives with SDM online deployment [see chapter 4.3.2]:</p> <p>SAPXIADF<SP>_<PL>.sca (XI Adapter Framework 3.0) SAPXITOOOL<SP>_<PL>.sca (XI Tools 3.0)</p>
	<p>Check that the <code>sap.com/com.sap.aii.af.jmsadapter</code> is running. Start the SAP Web AS Java Administrator Tool and choose the commands:</p> <p>cluster → server → services → deploy (view on application)</p>
	<p>Stop the following applications</p> <p><code>sap.com/com.sap.aii.af.service.cpa.monitor</code> <code>sap.com/com.sap.aii.af</code></p> <p>To do this, use the following SAP Web AS Java Administrator Tool commands:</p> <p>cluster - server - services - deploy (view on application).</p>
	<p>Start the application <code>sap.com/com.sap.aii.af</code>. This will also start the application <code>sap.com/com.sap.aii.af.service.cpa.monitor</code>.</p>
	<p>Check that the Adapter Engine is successfully registered in the SLD. To do this, call the Content Maintenance function in the SLD as follows:</p> <p><code>http://<sld-host>:<sld-j2ee-port>/sld → Administration → Content Maintenance.</code></p> <p>Select <i>XI Adapter Framework</i>.</p> <p>Thirteen associations have to be registered.</p>
	<p>Import the appropriate content for the XI support package release, from the archive <code>SAPBASIS<SP>_<PL>.zip</code> (<i>XI Content SAP_BASIS 6.40</i>) (see SAP Note 705541).</p>
	<p>In transaction SM59, change the path prefix of the HTTP connection <code>INTEGRATION_DIRECTORY_HMI</code> from</p> <p><code>/dir/hmi_cache_refresh_service/ext</code></p> <p>to</p> <p><code>/dir/CacheRefresh</code></p>

2.7.3.2 System Landscape Directory

✓	Action
	Patch the SAP Kernel 6.40 [see chapter 3.1]
	Import Support Package for SAP Basis 6.40 [see chapter 4.2]
	Apply Support Package for SAP Web AS Java 6.40 [see chapter 3.4]
	Update your System Landscape Directory (SLD) content (see SAP Note 669669).

2.7.3.3 XI Adapter Engine (Java Proxy Runtime)

✓	Action
	Apply Support Package for SAP Web AS Java 6.40 [see chapter 3.4].
	Deploy the archive <code>SAPXIAFC<SP>_<PL>.sca</code> (<i>XI Adapter Framework Core 3.0</i>) with the SDM offline deployment [see chapter 4.3.1].
	Check that the SAP Web AS Java is up and running; for example, by using a browser with URL <code>http://<j2ee-server>:<j2ee-http-Port></code> .
	Deploy the archive <code>SAPXIAF<SP>_<PL>.sca</code> (<i>XI Adapter Framework 3.0</i>) with the SDM online deployment [see chapter 4.3.2].
	Check that the <code>sap.com/com.sap.aii.af.jmsadapter</code> has started, by starting the SAP Web AS Java Administrator Tool and choosing the following commands: <code>cluster → server → services → deploy (view on application)</code>
	Stop the following applications <code>sap.com/com.sap.aii.af.service.cpa.monitor</code> <code>sap.com/com.sap.aii.af</code> To do this, use the following SAP Web AS Java Administrator Tool commands: <code>cluster → server → services → deploy (view on application)</code> .
	Start the application <code>sap.com/com.sap.aii.af</code> . This will also start the application <code>sap.com/com.sap.aii.af.service.cpa.monitor</code> .
	Check that the Adapter Engine is successfully registered in the SLD. To do this, call the Content Maintenance function in the SLD as follows: <code>http://<slid-host>:<slid-j2ee-port>/slid → Administration → Content Maintenance</code> Select <i>Landscape Description</i> and the class <i>XI Adapter Framework</i> . Thirteen associations have to be registered.

2.7.3.4 XI Partner Connectivity Kit

✓	Action
	Apply Support Package for SAP Web AS Java 6.40 [see chapter 3.4]
	Deploy the archive <code>SAPXIAFC<SP>_<PL>.sca</code> (<i>XI Adapter Framework Core 3.0</i>) with the SDM offline deployment [see chapter 4.3.1].
	Check if the SAP Web AS Java is up and running; for example, by using a browser with URL <code>http://<j2ee-server>:<j2ee-http-Port></code> .
	Deploy the following archives with SDM online deployment [see chapter 4.3.2]: <code>SAPXIAF<SP>_<PL>.sca</code> (<i>XI Adapter Framework 3.0</i>) <code>SAPXIPCK<SP>_<PL>.sca</code> (<i>XI PCK 3.0</i>)
	Check that the <code>sap.com/com.sap.aii.af.jmsadapter</code> has started by starting the J2EE Administrator Tool and choosing the commands: <code>cluster → server → services → deploy (view on application)</code>

2.7.3.5 XI Plain J2SE Adapter Engine

✓	Action
	Extract the <code>SAPXICONS<SP>_<PL>.sca</code> (<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><temp_directory>/tech_adapter/Administration/Documentat.</code>
	Unpack the zip archive <code>TechnicalAdapters.sda</code> to the installation directory of the J2SE Adapter Engine.
	Restore the configuration files with <code>restore_configuration</code> .

2.7.3.6 ABAP 6.40 Business System

✓	Action
	Patch the SAP Kernel 6.40 [see chapter 3.1]
	Import Support Package for SAP Basis 6.40 [see chapter 4.2]

2.7.3.7 ABAP 6.20 Business System

✓	Action
	Import Support Package for SAP Kernel 6.20 [see chapter 3.1]
	Import the released Basis Support Packages for WebAS 6.20 as well as the most recent Add-On Support Package for APPINT 200_620 in the order described in SAP Note 439915 .

2.8 SAP MI 2.5

2.8.1 Involved Components

	Tool
MI ABAP Server	
SAP Kernel 6.40	Kernel
SAP Basis 6.40	Support Package Manager
SAP ABA 6.40	Support Package Manager
MI Java Server	
SAP Web AS Java 6.40	SAPinst
MI Client	
MI Client Support Package	MI Web Console
CrEme Virtual Machine (for Win CE only)	MI Web Console

2.8.2 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:

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

- Processor type
- Operating system
- Operating system version.

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

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

<version>

Current version of CrEme. Possible values are 324 (for version 3.24) or 325b13 (for version 3.25b13).

<processor>

Processor type of the mobile client. Possible values are XSC (for XScale, PXA...) or ARM (for Strong ARM).

<OS Version>

Version number of the operating system of the mobile client. Possible values are CE30 (Pocket PC 2002 or Windows CE 3.?) or CE4x (for pocket camera of PC 2003 or Windows CE.Net 4.x).

<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
```

< MIRunTime >

Represents the MI runtime for the MI client. Possible values are `TOM` for the JSP runtime or `CORE` for the AWT runtime.

<LOCALE>

Represents the language for the MI client. For example, `_en` (English) and `_de` (German).

2.8.3 Preparation

✓	Action
	<p>See the latest documentation for the SAP MI Administrator. You find the documentation at: http://service.sap.com/patches → <i>SAP NetWeaver</i> → <i>Release '04</i> → <i>English or German</i> → <i>SAP NetWeaver</i> → <i>People Integration</i> → <i>SAP Mobile Infrastructure</i> → <i>SAP MI for Administrators</i></p> <p>The chapter that describes how the Support Package is applied to the MI Client refers to chapters under the chapter <i>SAP MI for Administrators</i>, for example, <i>Uploading Add-On Files or Assigning Applications to Users</i>.</p>
	Read the SAP Notes mentioned in the following table.

SAP Note	Title
717861	Central installation note for Support Package Stack 02
720842	Full installation of Mobile Infrastructure client

2.8.4 Procedure

2.8.4.1 MI ABAP Server

✓	Action
	Patch the SAP Kernel 6.40 [see chapter 3.1]
	Import Support Package for SAP Basis 6.40 [see chapter 4.2]
	Import Support Package for SAP ABA 6.40 [see chapter 4.2]

2.8.4.2 MI Java Server

✓	Action
	Back up application files [see chapter 2.8.5.1].
	Apply Support Package for SAP Web AS Java 6.40 [see chapter 3.4].
	Restore application files [see chapter 2.8.5.2].

2.8.4.3 MI Client

✓	Action
	Upload patches of the SAP MI Client Component [see SAP MI for Administrators → Uploading Add-On Files].
	Deploy the uploaded patches to the mobile device [see SAP MI for Administrators → Assigning Applications to Users]. If your users were already assigned older versions of a patch [see SAP MI for Administrators → Assigning a New Version of an Application to Users].

2.8.5 Procedure Details

2.8.5.1 Saving Application Files on the MI SAP Web AS Java

Prerequisites

✓	Action
	You started the SAP MI Web Console [see SAP MI for Administrators → Starting the SAP MI Web Console].

Procedure

✓	Action
	Choose tab <i>Upload Application → Save/Restore Application Files</i> .
	Choose <i>Add New Backup</i> . The system creates a new backup and inserts an entry with a new backup number.

2.8.5.2 Restoring Application Files on the MI SAP Web AS Java

Prerequisites

✓	Action
	You started the SAP MI Web Console [see SAP MI for Administrators → Starting the SAP MI Web Console].

Procedure

✓	Action
	Choose tab <i>Upload Application → Save/Restore Application Files</i> . A list of all backups is displayed.
	To restore the application files, select the latest backup and choose <i>Restore</i> .

2.8.6 SAP KW 7.0

2.8.7 Involved Components

	Tool
KW Server	
SAP Kernel 6.40	Kernel
SAP Basis 6.40	Support Package Manager
SAP ABA 6.40	Support Package Manager
KW Java Components	
SAP Web AS Java 6.40	SAPinst
SAP Internet Knowledge Servlet (IKS) 1.00	SDM
TREX Server	
TREX 6.1	SAPinst

2.8.8 Preparation

✓	Action
	Read the SAP Notes mentioned in the following table.

SAP Note	Title
670530	Installation SAP KW 7.0: Overview
666649	SAP KW 7.0: Supported component versions
666646	Import Support Package for KW 7.0: Known Issues
630591	SAP KW 7.0: Configuration of scenarios

2.8.9 Procedure

2.8.9.1 KW Server

✓	Action
	Patch the SAP Kernel 6.40 [see chapter 3.1]
	Import Support Package for SAP Basis 6.40 [see chapter 4.2]
	Import Support Package for SAP ABA 6.40 [see chapter 4.2]

2.8.9.2 KW Java Components

✓	Action
	Apply Support Package for SAP Web AS Java 6.40. [see chapter 3.4]
	Start the Visual Administrator. Choose the following commands: <i>Services</i> → <i>Configuration Adapter Service</i> → <i>HttpHosts</i> → <i>default</i> → <i>WebApplications</i> Delete the entry "kw=true" and "SAPiRExtHelp=true"
	Stop and start the SAP Web AS Java system.
	Copy the file <code>AppConfig.xml</code> from the following directory to any local directory. <code>..j2ee\cluster\server0\apps\sap.com\tc~kw_tc\servlet_jsp\SAPIKS2\root\WEB-INF</code>
	Deploy the archive <code>KMKWJIKS<SP>_<PL>.SCA</code> with SDM online deployment [see chapter 4.3.2]
	Restore the file <code>AppConfig.xml</code> back from your local directory to the original directory: <code>..j2ee\cluster\server0\apps\sap.com\tc~kw_tc\servlet_jsp\SAPIKS2\root\WEB-INF</code> Overwrite the existing <code>AppConfig.xml</code> file.
	Stop and restart the SAP IKS with the visual admin tool, using the following commands: <i>Services</i> → <i>deploy</i> → <i>applications</i> → <i>sap.com/tc~kw_tc</i>

2.9 SAP NetWeaver '04 Development ABAP

2.9.1 Involved Components

	Tool
ABAP Server	
SAP Kernel 6.40	Kernel
SAP Basis 6.40	Support Package Manager
SAP ABA 6.40	Support Package Manager

2.9.2 Procedure

✓	Action
	Patch the SAP Kernel 6.40 [see chapter 3.1]
	Import Support Package for SAP Basis 6.40 [see chapter 4.2]
	Import Support Package for SAP ABA 6.40 [see chapter 4.2]

2.10 SAP NetWeaver '04 Development Java

2.10.1 Involved Components

	Tool
SAP Web AS Java 6.40	SAPInst
JDI 6.30	SDM
SAP NetWeaver Developer Studio 2.0	SAPSetup

2.10.2 Preparation

✓	Action
	Read the SAP Notes mentioned in the following table.

SAP Note	Title
669654	SAP NetWeaver Developer Workplace 640 Installation - Central installation note for Support Package Stack 02

2.10.3 Procedure

2.10.3.1 SAP NetWeaver Developer Workplace

✓	Action
	Apply Support Package for SAP Web AS Java 6.40. [see chapter 3.4]
	Download and extract the archive <code>JIDE<SP>_<PL>.SAR</code> with <code>SAPCAR</code> [see chapter 4.1]
	Make sure that all SAP applications have been stopped.
	<p>Start <code>JDTSetup.exe</code> in the temporary directory and follow the instructions on the screen. For more information see the following:</p> <p>http://service.sap.com/instguidesnw04 → <i>Installation</i> → <i>Installation Guide</i> → <i>SAP NetWeaver Developer Studio</i></p> <p>Select <i>Updating SAP NetWeaver Developer Studio</i></p>

2.10.3.2 SAP NetWeaver Developer Studio (standalone)

✓	Action
	Download and extract JIDE<SP>_<PL>.SAR with SAPCAR [see chapter 4.1]
	Make sure that all SAP applications have been stopped.
	<p>Start JDTSsetup.exe in the temporary directory and follow the instructions on the screen. For more information, see the following:</p> <p style="padding-left: 40px;">http://service.sap.com/instguidesnw04 → <i>Installation</i> → <i>Installation Guide</i> → <i>SAP NetWeaver Developer Studio</i></p> <p>Select <i>Updating SAP NetWeaver Developer Studio</i></p>

2.10.3.3 SAP Web AS Java with DTR / JDI

✓	Action
	Apply Support Package for SAP Web AS Java 6.40. [see chapter 3.4]
	SDM offline deployment of the archive SAPDEVINFF<SP>_<PL>.SCA [see chapter 4.3.1] .
	SDM online deployment of the archives SAPDEVINF<SP>_<PL>.SCA and SAPBUILDT04_<PL>.SCA [see chapter 4.3.2] .

2.11 SAP NetWeaver '04 Development Adobe

2.11.1 Involved Components

	Tool
SAP Web AS Java 6.40	SAPinst
Adobe Document Services (ADS)	SDM

2.11.2 Preparation

✓	Action
	Read the SAP Notes mentioned in the following table.

SAP Note	Title
727168	Adobe Document Services

2.11.3 Procedure

✓	Action
	Apply Support Package for SAP Web AS Java 6.40. [see chapter 3.4]
	Deploy the archive ADSSAPOFF<SP>_<PL>.SCA with SDM offline deployment [see chapter 4.3.1]
	Deploy the archive ADSSAP<SP>_<PL>.SCA with SDM online deployment [see chapter 4.3.2]

3 Generic Components

3.1 SAP Kernel

New patched versions of SAP Kernel for SAP Web AS 6.40 are available on a weekly basis. We strongly recommend that you use the latest SAP Kernel version.

✓	Action
	Copy the patch into a temporary directory, for example <sp_directory>.
	Unpack the patch [see SAPCAR chapter 4.1]
	Stop the SAP system to which you want to apply the patch. (On NT 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 as follows: Windows: <drive>:\usr\sap<SAPSID>\sys\exe\run UNIX: /usr/sap/<SAPSID>/sys/exe/run If problems occur with the new patch 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.
	Start the SAP system again.

3.2 SAP GUI

Related Notes

SAP Note	Title
563161	SAP GUI, SAP ITS and SAP IGS patches.
147519	Maintenance Strategy

Location of Documentation

Description	Location
SAP Frontend Installation Guide	http://service.sap.com alias: <code>sapgui</code>

3.3 TREX 6.1

3.3.1 Involved Components

	Tool
TREX Server	
TREX 6.1	SAPinst

3.3.2 Prerequisites

You have installed TREX 6.1.01.00 (TREX 6.1 SP1). To find out which TREX version is currently installed, see the file <TREX_DIR>\doc\TREXVersion.html.

Description of Variable

Variable	Meaning
<TREX_DIR>	Installation directory for TREX. The path to the directory is: UNIX: /usr/sap/trex_<instance_number> Windows: <disk_drive>:\usr\sap\trex_<instance_number>

3.3.3 Preparation




✓	Action
	Apply Support Package for SAP Web AS Java 6.40 [see chapter 3.4].
	Prepare the system for SAPinst GUI [see chapter 4.4.1].
	Read the SAP Notes mentioned in the following table.



SAP Note	Title
691509	Installing TREX 6.1
696601	Migration to TREX 6.1
721052	TREX 6.1 SP2 Installation/Update
718339	TREX 6.1: Creating a RFC destination

✓	Action
	Download and extract the SAR files [see chapter 4.1]. The extraction of the archives generates several subdirectories under the directory <sp_directory>. The relevant directories for this description is the SAPinst directory: SAPIINST/<OS_DIR>/sapinst

3.3.4 Procedure

3.3.4.1 TREX Server

✓	Action
	UNIX
	Stopping the TREX Daemon
	Log on with the user <code><trex_instance_number></code> .
	<p>Go to the TREX directory, and call up the <code>TREX</code> script using the <code>stop</code> option.</p> <pre>cd <TREX_DIR> TREX stop</pre> <p> Do not stop the TREX daemon by using <code>kill -9</code>, and do not stop the individual child processes that the daemon has started. Doing so can lead to the loss of data. Affected indexes can be irreparably damaged. Continue only if all TREX processes have stopped.</p> <p> Certain processing steps, for example, writing an index, cannot be interrupted. These steps are completed before TREX is stopped. This process can take a while to complete.</p> <p>With large indexes, it can take up to a few hours to stop the TREX servers if lots of documents are currently being indexed.</p>
	Log on to the host on which you want to apply the TREX Support Package to, as the root user.
	<p>Make sure that all of the TREX processes have stopped. In particular, check that the Web server (HTTP daemon) has stopped with the following command:</p> <pre>ps -fu <TREX_user> grep httpd</pre> <p> HP-UX only: If multiple TREX instances are running on a host, you have to stop all TREX instances because the various TREX instances use a common shared library on HP-UX.</p> <p>Stop the Web server if it is still running.</p>
	Change to the directory <code><TREX_SP>/SAPINST/<OS_DIR></code> , which has been created by SAPCAR.
	Start the SAPinst GUI. [see chapter 4.4.2]
	On the <i>Welcome</i> screen, choose <i>Install/Upgrade a TREX 6.1 Search and Classification Instance</i> . Choose <i>Next</i> .
	Follow the instructions on your screen. The necessary input parameters are listed in the section Options for the Support Package [Chapter 3.3.5.1] .
	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, the message <code>The installation finished successfully</code> appears.
	Starting the TREX Daemon
	Log on with the user <code><trex_instance_number></code> .
	<p>Go to the TREX directory, and call up the <code>TREX</code> script using the <code>start</code> option.</p> <pre>cd <TREX_DIR> TREX start</pre>


Windows	
✓	Action
	Extract the SAR files using SAPCAR [see chapter 4.1].
Stopping the TREX Daemon	
	Log on with the user <trex_instance_number>.
	Choose <i>Start</i> → <i>Programs</i> or <i>All Programs</i> → <i>SAP TREX</i> → <i>Instance</i> <instance_number> → <i>TREX Service</i> → <i>Stop</i> .
	 <p>Do not use the Task Manager to stop the TREX daemon or the individual TREX servers. Doing so can lead to the loss of data. Affected indexes can be irreparably damaged. Continue only if all TREX processes have stopped.</p>
	 <p>Certain processing steps, for example, writing an index, cannot be interrupted. These steps are completed before TREX is stopped. This process can take a while to complete.</p> <p>With large indexes, it can take up to a few hours to stop the TREX servers if lots of documents are currently being indexed.</p>
Stopping the TREX Web Site	
	Choose the following: <ul style="list-style-type: none"> Windows 2000: <i>Start</i> → <i>Settings</i> → <i>Control Panel</i> → <i>Administrative Tools</i> → <i>Information Service Manager</i>. Windows Server 2003: <i>Start</i> → <i>Administrative Tools</i> → <i>Information Service Manager</i>.
	Open the folders of your TREX host in the administration tool <i>Internet Information Services</i> ..
	Select the web site of your TREX instance (SAP_TREX_<number>).
	Choose <i>Stop</i> from the context menu.
Resetting the Web Server (IIS)	
	Open a command prompt (DOS window).
	Enter the following command: <pre>iisreset</pre> <p>The IIS (MS Internet Information Server) will be stopped and then restarted. The following messages appear:</p> <pre>Attempting stop... Internet services successfully stopped Attempting start... Internet services successfully restarted</pre>
Continue only if all TREX processes have stopped.	
	Log on to the host on which you want to apply the TREX Support Package to, with administrator rights.
	Start SAPinst GUI. [see chapter 4.4.3]
	Choose <i>Install/Upgrade a TREX 6.1 Search and Classification Instance</i> .
	Choose <i>Next</i> .

	Follow the instructions on your screen. The necessary input parameters are listed in the section Options for the Support Package [Chapter 3.3.5.1] .
	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, the message <code>The installation finished successfully</code> is displayed.
Updating Permissions for TREX Directory	
	Update the permissions for the TREX Directory. [see chapter 3.3.5.2]
Starting the TREX Daemon	
	Log on with the user <code><trex_instance_number></code> .
	Choose <i>Start</i> → <i>Programs</i> or <i>All Programs</i> → <i>SAP TREX</i> → <i>Instance <instance_number></i> → <i>TREX Service</i> → <i>Start</i> .
Starting the TREX Web Site	
	Choose the following: <ul style="list-style-type: none"> • Windows 2000: <i>Start</i> → <i>Settings</i> → <i>Control Panel</i> → <i>Administrative Tools</i> → <i>Information Service Manager</i>. • Windows Server 2003: <i>Start</i> → <i>Administrative Tools</i> → <i>Information Service Manager</i>
	Open the folders of your TREX host in the administration tool <i>Internet Information Services</i> .
	Select the web site of your TREX instance (<code>SAP_TREX_<number></code>).
	Choose <i>Start</i> from the context menu.
	Troubleshooting: If the <i>World Wide Web Publishing Service</i> does not open after you have started it, try to start it using a command prompt as follows: <ul style="list-style-type: none"> • Open a command prompt. • Execute the command: <code>net start w3svc</code>

3.3.5 Procedure Details

3.3.5.1 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 process, and the entries that you need to make.

Window	Input Option	Entry
<i>What do you want to do?</i>	<ul style="list-style-type: none"> • <i>Run a new installation</i> • <i>Continue old installation</i> 	Choose <i>Run a new installation</i> Choose <i>OK</i> .
<i>Installation of TREX</i>		Choose <i>Next</i> .
<i>Select the TREX Instance</i>	<i>Select an Installation Mode</i> <ul style="list-style-type: none"> • <i>Install a new TREX Instance</i> • <i>Update existing TREX instance</i> 	Choose <i>Update existing TREX instance</i> .
	<i>Detected SAP TREX Instances</i> You can select previously installed TREX instances from a pull-down menu.	Select the TREX instance that you want to update.  UNIX <code>[/usr/sap/trex_11]</code> Windows <code>TREX instance 11</code> <code>[C:\usr\sap\trex_11]</code> Choose <i>Next</i> .
<i>TREX OS User Account</i>	<i>User Name</i>	Enter the user you used to carry out the original TREX installation. This user is already displayed by default. Choose <i>Next</i> .
<i>Start Installation</i>		Before the installation starts, the system displays the parameters that you entered. Choose <i>Start</i> to start the installation.
<i>Installation Progress</i>		
<i>Finished successfully</i>		Choose <i>OK</i> to finish the installation.

3.3.5.2 Updating Permissions for the TREX Directory

You have to update the permissions for the TREX directory after the installation. The anonymous user that is entered on the Web server in the Web site `SAP_TREX_<instance_number>` needs '*Full Control*' access to the content of the TREX directory.

Background

When TREX is first installed, the Web site `SAP_TREX_<instance_number>` is created on the Web server. This involves automatically determining an anonymous user for anonymous access to the Web site. This anonymous user is called `IUSR_<host_name>` by default.

This anonymous user needs to have '*Full Control*' permissions for the TREX directory. You ensured this with one of the following variants during the initial installation:

Variant 1

You determined the anonymous user entered in the Web site `SAP_TREX_<instance_number>`. You gave this user '*Full Control*' access to the TREX directory and to all files and subdirectories contained therein.

Variant 2

You changed the anonymous user in the Web site `SAP_TREX_<instance_number>`. Instead of using the presetting `IUSR_<hostname>`, you entered a local user that has full control for the TREX directory.

When you update TREX, the permissions for the TREX directory are retained but those for the directory content are lost. You therefore have to transfer the permissions to the directory content again.

Procedure

✓	Action
	Select the TREX directory with the secondary mouse button. Choose <i>Properties</i> → <i>Security</i> .
	Select the appropriate entry according to which of the variants above you chose. <ul style="list-style-type: none"> • Variant 1: Internet Guest Account (<host_name>\IUSR_<host_name>) • Variant 2: The local user that you entered in the Web site <code>SAP_TREX</code>.
	Make sure that the selected user or user group has the permission ' <i>Full Control</i> '.
	Choose <i>Advanced</i> .
	Select the user or user group again.
	Select the following according to your operating system: <ul style="list-style-type: none"> • Windows 2000: <i>Allow inheritable permissions from parent to propagate to this object and Reset permissions on all child objects and enable propagation of inheritable permissions.</i> • Windows Server 2003: <i>Allow inheritable permissions from the parent to propagate to this object and Replace permission entries on all child objects...</i>
	Choose <i>OK</i> twice.

3.4 SAP Web AS Java 6.40

3.4.1 New JDK Version and VM Settings Required



To apply the Support Package for SAP Web AS 6.40 Java SP4 you have to install the required JDK version. Make sure that you are using the correct JDK version specified in the **SAP Notes** listed in the table below.

The Support Package also needs increased memory settings and adjustments to the VM settings according to the **SAP Notes** listed in the table below.

It is essential that you install the required JDK version and adjust the VM settings before you apply the Support Package.

SAP Note	Title
709140	Recommended JDK Version and VM Settings for the WebAS 6.40 SP4
716604	Access to Sun J2SE and recommended J2SE options
716926	Recommended VM Settings for the HP VM (+ JDK version)
716927	Recommended VM Settings for the AIX VM (+ JDK version)
717376	Recommended VM Settings for the iSeries (OS/400) VM)
722520	Recommended VM Settings for Digital Unix (Tru64)


3.4.2 Preparation


✓	Action
	Download tool SAPCAR [chapter 4.1] .
	Read the section on “Specific Problems” in the <i>Troubleshooting</i> part of this guide [chapter 3.4.4] .
	Make sure that your database system is set to “automatic growth” and that the database files have free space.
	Make sure that the maximum heap size is at least set to 256 MB. For more information, see SAP Note 709140 .
	Prepare the system for SAPinst GUI; see chapter 4.4.1 for details.
	Read the section “Running SAPinst GUI”. [UNIX: see chapter 4.4.2]; [Windows: see chapter 4.4.3].
	See chapter 4.4.4 for details about how to work with SAPinst GUI.
iSeries	
	On your Windows installation system, map a share to the iSeries system in which you are going to apply the Support Package on.
	Download the Support Package archives from SAP Service Marketplace into a temporary directory, for example <code><sp_directory></code> , on the mapped share. You can find the Support Packages at service.sap.com/patches → SAP WEB AS → SAP WEB AS 6.40 → Binary Patches → SAP J2EE Engine 6.xx → OS/400 V5R2M0.

✓	Action
	Read the SAP Notes mentioned in the following table.

SAP Note	Title
697535	Additional information on installing SAP Web AS Java SPs (Web AS 6.40)
718267	Patching IGS


3.4.3 Procedure

UNIX	
✓	Action
	<p>Extract the SAR files using SAPCAR [see chapter 4.1].</p> <p> Files must be extracted in following order:</p> <ol style="list-style-type: none"> 1. SAPINST<SP>.SAR and CTRL<database><SP>.SAR (will be extracted to the subdirectory SAPINST-CD of <sp_directory>.) 2. J2EERT<SP>.SAR 3. J2EERTOS<SP>.SAR (J2EE*.SAR files will be extracted to the subdirectory J2EE-RUNT-CD of <sp_directory>.)
	Log on to your SAP System host as user <code>root</code> .
	Start SAPinst GUI [see chapter 4.4.2] .

Windows	
✓	Action
	<p>Extract the SAR files using SAPCAR [see chapter 4.1].</p> <p> Files must be extracted in following order:</p> <ol style="list-style-type: none"> 1. SAPINST<SP>.SAR and CTRL<database><SP>.SAR (will be extracted to the subdirectory SAPINST-CD of <sp_directory>.) 2. J2EERT<SP>.SAR 3. J2EERTOS<SP>.SAR (J2EE*.SAR files will be extracted to the subdirectory J2EE-RUNT-CD of <sp_directory>.)
	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 MS Service Management Console are not running.
	Start SAPinst GUI [see chapter 4.4.3]

UNIX and Windows	
	SAPinst GUI starts automatically by displaying the <i>Welcome</i> screen. Select the option <i>Apply Support Package 5</i> .
	Select the instance profile of the Java central instance and choose <i>Next</i> .
J2EE-Addin	<p>The <i>RFC User Information</i> screen is displayed.</p> <p>Enter the SAP Web AS RFC user, the SAP Web AS RFC password, and the SAP Web AS RFC client.</p> <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>
	<p>On the <i>CD Browser</i> screen go to the field <i>Package Location for CD J2EE Engine 6.30</i> and select the following file:</p> <p style="text-align: center;"><code><sp_directory>/J2EE-RUNT-CD/LABEL.ASC</code></p>
	Choose <i>OK</i> .

	<p>On the <i>Defining Patch Parameters</i> screen make sure that the correct JDK home directory is selected [see chapter 3.4.1].</p> <p>Enter the password for user <code><sapsid>adm</code> and the password for user <code>SAPservice<SAPSID></code>.</p> <p>Entering the values for the Windows domain for the SAP system is optional.</p>
	Choose <i>OK</i> .
	<p>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.</p> <p>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.</p>
	If the installation was successful, the <i>Finished installation</i> message is displayed.
	Choose <i>OK</i> to complete the installation.

iSeries	
✓	Action
	<p>Extract the SAR files using SAPCAR [see chapter 4.1].</p> <p> Files must be extracted in following order:</p> <ol style="list-style-type: none"> 1. <code>SAPINST<SP>.SAR</code> and <code>CTRL<database><SP>.SAR</code> (will be extracted to the subdirectory <code>SAPINST-CD</code> of <code><sp_directory></code>.) 2. <code>J2EERT<SP>.SAR</code> 3. <code>J2EERTOS<SP>.SAR</code> <p>(<code>J2EE*.SAR</code> files will be extracted to the subdirectory <code>J2EE-RUNT-CD</code> of <code><sp_directory></code>.)</p>
	<p>Install the TMKSVR from subdirectory <code><Path to directory of .SAR files>/SAPINST-CD/SAPINST/AS400/TMKSVR</code> by double-clicking on the file <code>SETUP.EXE</code> in this directory.</p>

	<p>On your iSeries host, shut down the system to which you are going to apply the Support Package. You can stop an instance by calling <code>STOPSAP SID(<SID>) INSTANCE(<instanceno>)</code>. First, stop all dialog instances (J or D), then the central instance (DVEBMGS or JC) and after that the central services instance (SCS).</p>
	<p>Make sure that the LoadTimeout of your SAP Web AS Java is set to 10.</p> <p>For more information on how to change the LoadTimeout value, see SAP Note 648651, section 5: <i>Final Installation Steps</i>.</p>
	<p>Start tool <code>SAPinst</code> [see chapter 4.4.6]</p> <p>From the directory in which the <code>SAPINST<SP number>.SAR</code> and <code>CTRL<database><SP number>.SAR</code> have been extracted, go to subdirectory <code>SAPINST-CD\SAPINST\AS400\OS400</code> and double-click the file <code>sapinst.exe</code>.</p> <p>The <i>Welcome</i> screen appears.</p>
	<p>Select the instance profile of the Java central instance and choose <i>Next</i>.</p> <p>Normally, the Java central instance profil is as follows:</p> <p>For SAP Web AS Java only <code>share>:\usr\sap\<SID>\JC<instanceno>\SYS\profile\<SID>_JC<instanceno>_<instancehost></code></p> <p>For SAP Web AS add-in, <code>share>:\usr\sap\<SID>\DVEBMGS<instance no.>\SYS\profile\<SID>_DEVEBMGS<instance no.>_<instance host></code>.</p> <p>Choose <i>Next</i>.</p> <p>The <i>CD Browser</i> screen appears.</p>
	<p>Specify the file <code>LABEL.ASC</code> and provide the following information:</p> <ul style="list-style-type: none"> For the <i>SAP Installation Master CD</i>, enter the path <code><Path to directory of .SAR files>\SAPINST-CD</code>. For the <i>SAP Web AS 6.40 CD</i>, enter the path <code><Path to directory of .SAR files>\J2EE-RUNT-CD</code> in the field <i>Package Location</i>.
	<p>Choose <i>OK</i>.</p>
J2EE-Addin	<p>The <i>RFC User Information</i> screen appears.</p> <p>Enter the SAP Web AS RFC user, the SAP Web AS RFC password, and the SAP Web AS RFC client.</p> <p>You have to use a RFC user that has the appropriate rights to access the server add-in. For example, the users <code>SAPJSF</code> and <code>J2EE_ADMIN</code> do not have the required rights. A valid user name would be <code>DDIC</code>.</p>
	<p>Enter the password for the user <code><SID>OFR</code>, (for example, if your SAPSID is <code>DEV</code>, enter the password for user <code>DEVOFR</code>) on the <i>Defining Patching Parameters</i> screen</p>
	<p>If the parameters displayed on the <i>Start Installation</i> screen are specified correctly, choose <i>Start</i> to start the deployment.</p> <p>The <i>Installation Progress</i> screen appears.</p> <p>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.</p>
	<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>

3.4.4 Troubleshooting

<p>All Platforms</p> <p>Class definition not found</p> <p>During the deployment with <code>SAPinst</code> an error message is displayed. The log file displays the error class definition not found.</p> <p>Solution:</p> <ol style="list-style-type: none"> 1. Restart the SAP Web AS Java. 2. Continue <code>SAPinst</code> using the option <i>Retry</i>.
<p>SAP J2EE Instance does not start</p> <p>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.</p> <p>Solution:</p> <ol style="list-style-type: none"> 1. Stop the SAP system with user <code><SID>adm</code>, using the command <code>stopsap</code>. If this command does not stop the complete system, stop each instance separately. 2. In the directory <code>/etc/services</code>, delete the incorrect standard port (<code>36 <instance number></code>). 3. Change the port in the SDM repository in the directory <code>/usr/sap/<SID>/<CENTRAL-Instance>/SDM/program/config/sdmrepository.sdc</code>. Look for "msport...". 4. Change the message server port in the instance profile of the SCS instance in the directory <code>/sapmnt/<SID>/profil/<SID>_<CENTRAL-Instance>_<host></code>. 5. Restart the complete system with the user <code><SID>adm</code> using the command <code>startsap</code>.
<p>UNIX and Windows</p> <p>Text file busy</p> <p><code>SAPinst</code> generates the following <code>SAPCAR</code> error message in the log file <code>SCS.log</code></p> <pre>could not open for writing <path> <filename>. Text file busy. <filename> is, for example, libicudt20b.sl (Unicode on UNIX) or sapevents.dll (Windows).</pre> <p>MUT-03011 Execution of the command finished with return code 28. Output</p> <p>Apply SP4, <code>SAPinst</code> fails at the step "SAP System Installation" with the following error:</p> <pre>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:</pre> <p>Solution:</p> <ol style="list-style-type: none"> 1. Rename the busy file, for example, rename to <code><file name>old.dll</code>. 2. Continue with <code>SAPinst</code> by using the <i>Retry</i> option. 3. Directly after the installation, restart the SAP Web AS Java so that it uses the latest version. <p>If your SAP system is a non-production Unicode system, you can prevent these errors by stopping the SAP system before the Support Package installation.</p> <p>The <code>sapevents.dll</code> file is used by <i>Windows Management Instrumentation</i>. Instead of renaming the file, you can simply stop the service, or, if you are working on a non-production SAP system, stop the SAP system before the Support Package installation.</p>

iSeries

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 the 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 iSeries as user `<SID>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 SAP J2EE Engine SP0.

Solution:

1. Stop the SAP system with the user `<SID>OFR` using the command `STOPSAP`.
2. In your iSeries system, delete the incorrect standard port (`36<instanceno>`).
3. Change the port in the SDM-Repository in the directory `/usr/sap/<SID>/<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/<SID>/profil/<SID>_<CENTRAL-Instance>_<host>`.

Restart the complete system with the user `<SID>OFR` using the command `STARTSAP`.

4 Support Package Stack Tools

This chapter introduces the tools that you need to apply the Support Package.

Further information is available at:

Documentation Title	Location
Installation Guide: Deployment of Support Packages (Java)	SAP Service Marketplace http://service.sap.com/instguidesnw04 → <i>Operations</i>

4.1 SAPCAR

SAPCAR is used to extract the SAR archives. You can find SAPCAR on the SAP Service Marketplace at <http://service.sap.com/patches> → *Technology Components* → *SAPCAR*.

For further information about the use of SAPCAR, see **SAP Note 212876**.

Preparation

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

Using SAPCAR

✓	Action
UNIX	
	Change to the directory in which you have downloaded or copied the archives: <code>cd /<sp_directory></code>
	Start SAPCAR to extract the archive to the current directory <code><sp_directory></code> . <code><path to SAPCAR>/sapcar -xvf <file name>.SAR</code>
Windows/iSeries	
	Change to the directory in which you have downloaded or copied the archives: <code>cd \<sp_directory></code>
	Start SAPCAR to extract the archive to the current directory <code><sp_directory></code> . <code><path to SAPCAR.EXE>\sapcar.exe -xvf <file name>.SAR</code>

Directories in the archive will be created as subdirectories of the directory `<sp_directory>`, by keeping the directory structure of the archive.

4.2 Support Package Manager

The Support Package Manager handles ABAP Support Packages. To access the online documentation, proceed as follows:

Log on to SAP Web AS with client 000.

Start the Support Package Manager by choosing the following:

SAP Menu → *Tools* → *Maintenance* → *Support Package Manager*

Or use the transaction code

SPAM

Choose *Info* and then the following:

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 the *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 description covers SCA and SDA deployment.

If archives require that the 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 Offline Deployment

✓	Action
	Stop the SAP Web AS Java
	<p>Start the SDM server in standalone mode by using the following commands:</p> <p>Windows:</p> <pre>cd <drive>:\usr\sap\<SID>\<instance>\SDM\program sdm.bat jstartup "mode=standalone" StartServer.bat</pre> <p>Unix:</p> <pre>cd /usr/sap/<SID>/<instance>/SDM/program sdm.sh jstartup mode=standalone StartServer.sh</pre>
	<p>Start SDM GUI and deploy the archives. See chapter 4.3.3. It is important that you exit the SDM GUI after you have deployed all necessary archives.</p>
	<p>Stop the SDM server and switch it back to integrated mode by using the following commands:</p> <p>Windows:</p> <pre>cd <drive>:\usr\sap\<SID>\<instance>\SDM\program StopServer.bat sdm.bat jstartup "mode=integrated"</pre> <p>Unix:</p> <pre>cd /usr/sap/<SID>/<instance>/SDM/program StopServer.bat sdm.bat jstartup "mode=integrated"</pre>
	Start the SAP Web AS Java.

4.3.2 Starting SDM for online deployment

Make sure that you have switched SDM back to integrated mode and that you have started the *SAP Web AS Java* after the last offline deployment as described in section 4.3.1

Note: Starting the *SAP Web AS Java* also starts the SDM server. To check whether the SDM server is running, use the following tools:

- Windows: SAP Management Console
- UNIX: jcmmon

✓	Action
	Start the SDM GUI and deploy the archives. See chapter 4.3.3 .

4.3.3 Starting SDM GUI for Deployment

✓	Action
	<p>Start the SDM GUI. To do this, execute the following file:</p> <ul style="list-style-type: none"> • Windows RemoteGui.bat in directory <code>\usr\sap\<SID>\<instance>\SDM\program</code>. • Unix RemoteGui.sh in directory <code>/usr/sap/<SID>/<instance>/SDM/program</code>. <p>The SDM GUI screen appears.</p>
	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
	<p>Enter the following information:</p> <p><i>Password</i> The initial password is <code>sdm</code></p> <p><i>User description</i> Optional input</p> <p><i>Host name</i></p> <p><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 <instance number>.</p>
	Choose <i>Login</i> . Now the SDM GUI appears.
	Choose the <i>Deployment</i> tab.
	<p>Select <i>Add SCA/SDA to Deployment List (Local File Browser)</i>. A file selection dialog window is displayed.</p> <p>Select the SCA or SDA file you want to deploy and choose <i>Choose</i>.</p>
	You can repeat the previous step several times, if there are more SCA/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 SCA or SDA is completed, a message window informs you if the deployment was successful.
	Choose <i>Confirm</i> to return to the SDM GUI.
	To log off from the SDM server and exit the SDM GUI, select <i>Deployment</i> → <i>Exit</i> or choose the <i>Exit</i> icon.

4.4 SAPInst

4.4.1 Preparing the System for SAPInst GUI





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. If you want to do this, see "Controlling a SAPInst Installation from a Remote Machine" [see [chapter 4.4.5](#)].

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" [see [chapter 4.4.5.2](#)].



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

✓	Platform	Action										
	NT IA64 Linux-IA64 Linux-s390x OS390	<p>A Java Runtime Environment (JRE), with the same release as the SAP Web AS Java, has to be installed on the host where you want SAPInst GUI to run.</p> <p>For the required JRE, see the following: http://service.sap.com/platforms → <i>Availability of SAP components in Detail</i> → <i>SAP Web AS / R/3 / Kernel</i> → <i>OS/DB/JDK Releases for SAP Web AS 6.40</i></p> <p>To check the version of an already installed JRE, enter the following command: java -version</p> <p>If the version number displayed does not match the required JRE you must set the environment variable SAPINST_JRE_HOME to the path of the required JRE.</p> <table border="1"> <thead> <tr> <th>OS/Shell</th> <th>Command</th> </tr> </thead> <tbody> <tr> <td>Bourne shell (sh)</td> <td>SAPINST_JRE_HOME=<REQUIRED_JRE_HOME_PATH> export SAPINST_JRE_HOME</td> </tr> <tr> <td>C shell (csh)</td> <td>setenv SAPINST_JRE_HOME <REQUIRED_JRE_HOME_PATH></td> </tr> <tr> <td>Korn shell (ksh)</td> <td>export SAPINST_JRE_HOME <REQUIRED_JRE_HOME_PATH></td> </tr> <tr> <td>NT IA64</td> <td>SET SAPINST_JRE_HOME=<REQUIRED_JRE_HOME_PATH></td> </tr> </tbody> </table>	OS/Shell	Command	Bourne shell (sh)	SAPINST_JRE_HOME=<REQUIRED_JRE_HOME_PATH> export SAPINST_JRE_HOME	C shell (csh)	setenv SAPINST_JRE_HOME <REQUIRED_JRE_HOME_PATH>	Korn shell (ksh)	export SAPINST_JRE_HOME <REQUIRED_JRE_HOME_PATH>	NT IA64	SET SAPINST_JRE_HOME=<REQUIRED_JRE_HOME_PATH>
OS/Shell	Command											
Bourne shell (sh)	SAPINST_JRE_HOME=<REQUIRED_JRE_HOME_PATH> export SAPINST_JRE_HOME											
C shell (csh)	setenv SAPINST_JRE_HOME <REQUIRED_JRE_HOME_PATH>											
Korn shell (ksh)	export SAPINST_JRE_HOME <REQUIRED_JRE_HOME_PATH>											
NT IA64	SET SAPINST_JRE_HOME=<REQUIRED_JRE_HOME_PATH>											
	NT I386 HP-UX SUN Solaris	<p>No action required. JRE is integrated in the shipment of SAPInst GUI.</p> <p></p> <p>During setup, the JRE is temporarily extracted on your host; therefore, you need at least 100 MB additional free disk space. SAPInst removes this JRE from your host when the installation is finished.</p>										
	Other Platforms	<p>The required JRE version is 1.3.0 or higher.</p> <p></p> <p>JRE is not part of the SAPInst shipment.</p>										

UNIX	Make sure that your <code>DISPLAY</code> environment variable is set to <code><host_name>:0.0</code> , where <code><host_name></code> is the host on which you want to display the SAPInst GUI.	
	Shell Used	Command
	Bourne shell (<code>sh</code>)	<code>DISPLAY=<host_name>:0.0</code> <code>export DISPLAY</code>
	C shell (<code>cs</code>)	<code>setenv DISPLAY <host_name>:0.0</code>
	Korn shell (<code>ks</code>)	<code>export DISPLAY=<host_name>:0.0</code>

4.4.2 Running SAPInst GUI on UNIX

✓	Action
	Change to the SAPInst directory with the following command: <code>cd <sp_directory>/SAPINST/<OS_DIR></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_inst_dir>` 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` command from the mounted *SAP Master CD*:
`<SAP_Master_CD>/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 GUI on Windows

✓	Action
	Change to the SAPInst directory with the following command: <code>cd <sp_directory>\SAPINST\<OS_DIR></code>
	Start SAPInst with the following command: <code>sapinst.exe</code>



By default, SAPInst creates the installation directory `<sapinst_instmdir>` 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_instmdir>` 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:

Push Button	Meaning
<i>Back</i>	Displays the previous dialog screen.
<i>Next</i>	Displays the next dialog screen.
<i>Cancel</i>	<p>Cancels the installation with the following options:</p> <ul style="list-style-type: none"> – <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> 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.
<i>Logoff</i>	<p>Cancels the connection to the SAPInst GUI only. The SAPInst server keeps on running.</p>  <p>You have to log off during the installation from the host where you control the installation with SAPInst GUI. Then you can connect to the running installation from another host. Be aware that you need the <installation CD> to do this.</p> <p>For more information about running a standalone SAPInst GUI, see “Starting SAPInst GUI on a local Host” [chapter 4.4.5.2]</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 a 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 iSeries, see chapter [Running SAPInst \(iSeries only\)](#).

Prerequisites

✓	Action
	<p>Make sure that you have performed the preparation activities for your local host (SAPInst GUI host) and your remote host.</p> <p>For more information, see “SAP GUI Installation Preparations” in this documentation [chapter 4.4.1].</p>
	<p>Both computers are on the LAN and can “ping” each other.</p> <p>To test this, proceed as follows::</p> <ul style="list-style-type: none"> • Log on to your remote host and enter the command <code>ping <local host></code>. • Log on to the local host and enter the command <code>ping <remote host></code>.

4.4.5.1 Starting SAPInst on the Remote Host

You use this procedure to start the SAPInst server on your **remote** host. The remote host is the host where you want to install the SAP software.

Procedure

✓	Action
	Log on to your remote host.
	<p>Enter the following commands:</p> <p>Windows</p> <pre>cd <sp_directory>\SAPInst\NT\I386 or IA64 sapinst SAPINST_START_GUI=false</pre> <p>UNIX</p> <pre>cd <sp_directory>/SAPINST/<OS_DIR>/ ./sapinst SAPINST_START_GUI=false</pre> <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 <host_name>, port <port_number> to continue with the installation</pre>

4.4.5.2 Starting SAPInst GUI on the Local Host

You use this procedure to start the SAPInst GUI standalone on your **local** host.

Procedure

✓	Action
	Log on to your local host.
	<p>Proceed as follows:</p> <p>UNIX</p> <p>Run the script <code>startInstGui.sh</code> from the following path:</p> <p><code><sp_directory>/SAPINST/<OS_DIR></code></p> <p>Windows</p> <p>Run <code>startinstgui.bat</code> from the following path:</p> <p><code><sp_directory>\SAPinst\<OS_DIR></code></p> <p>The <i>SAP Installation GUI Connection</i> dialog appears.</p>
	<p>Enter the host name of the <i>Installation Host</i> and the same <i>Port</i> used by <code>SAPinst</code> on the remote host and choose <i>OK</i>.</p> <p><code>SAPinst</code> GUI now connects to the <code>SAPinst</code> server and the first dialog of the installation appears.</p>


4.4.6 Running SAPinst for iSeries


You use this procedure to run `SAPinst` on a Windows host to install SAP Web AS Java Support Packages in an iSeries system.

Prerequisites

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

Procedure

✓	Action
	Log on to the Windows host as the installation user.
	<p>From the directory in which the <code>SAPINST<SP number>.SAR</code> and <code>CTRL <database><SP number>.SAR</code> have been unpacked, go to the subdirectory <code>SAPINST-CD\SAPINST\AS400\OS400</code> and double-click the <code>sapinst.exe</code> file.</p> <p></p> <p><code>SAPinst</code> uses the ports 21212 and 21213 during the installation for communication with the <code>SAPinst</code> GUI. You get an error message if one of these ports is already in use. In this case, you must do the following:</p>

	<p>1. Open a command prompt. 2. Change to your <SAPinst_INSTDIR> directory and enter the following command:</p> <pre><Mapped_Drive>:\<Copied_SAR_Files_Dir>\SAPINST\AS400\OS400\sapinst.exe SAPINST_DIALOG_PORT=<port></pre> <p><port> is an unused port on your Windows installation host.</p>
	<p>The <i>SAPinst/TMKSVR – Session Parameters</i> dialog box appears and prompts you for the target iSeries parameters. Enter your values.</p> <div style="text-align: center;">  </div>
	<p>The SAPinst GUI now starts automatically by displaying the <i>Welcome</i> screen.</p>

4.4.7 Handling the CD Browser Dialog

SAPinst displays this window 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).
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.

2. `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

There are the following options:

Cancelation Option	Meaning
<i>Stop</i>	Since <code>SAPinst</code> 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.
<i>Reset</i>	You must restart from the beginning, that is, with the default <code>keydb.xml</code> file as delivered.  In some cases, you must uninstall already installed components, 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.

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

✓	Action						
	Log on to your installation host.						
	<table border="1"> <tbody> <tr> <td>UNIX</td> <td>Run the script <code>sapinst</code> from the following path: <code><sp_directory>/SAPINST/<OS_DIR>/</code></td> </tr> <tr> <td>Windows</td> <td>Run the script <code>sapinst</code> from the following path: <code><sp_directory>/SAPINST/<OS_DIR>/</code></td> </tr> <tr> <td>On Windows as remote GUI for iSeries</td> <td>Run <code>sapinst.exe</code> from the following path: <code><sp_directory>\SAPinst\AS400\OS400</code></td> </tr> </tbody> </table>	UNIX	Run the script <code>sapinst</code> from the following path: <code><sp_directory>/SAPINST/<OS_DIR>/</code>	Windows	Run the script <code>sapinst</code> from the following path: <code><sp_directory>/SAPINST/<OS_DIR>/</code>	On Windows as remote GUI for iSeries	Run <code>sapinst.exe</code> from the following path: <code><sp_directory>\SAPinst\AS400\OS400</code>
UNIX	Run the script <code>sapinst</code> from the following path: <code><sp_directory>/SAPINST/<OS_DIR>/</code>						
Windows	Run the script <code>sapinst</code> from the following path: <code><sp_directory>/SAPINST/<OS_DIR>/</code>						
On Windows as remote GUI for iSeries	Run <code>sapinst.exe</code> from the following path: <code><sp_directory>\SAPinst\AS400\OS400</code>						

All Platforms	
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:	
Option	Behavior of SAPInst
<i>Run a new Installation</i>	<p>The installation is not continued.</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 style="text-align: center;"><log_day_month_year_hours_minutes_seconds></p> <p>(For example, log_01_Oct_2003_13_47_56).</p>
<i>Continue old installation</i>	The installation of the installation service mentioned here is continued from the point of failure.

For more information, see the documentation on the *SAP Service Marketplace* at service.sap.com/sapinstfeedback.