SAP NetWeaver ’04

Upgrade Master Guide

SAP NetWeaver™ ´04

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Documentation in the SAP Service Marketplace

You can find this documentation at the following address:
http://service.sap.com/ instguidesNW04

Typographic Conventions

Type Style	Represents
Example Text	Words or characters that appear on the screen. These include field names, screen titles, pushbuttons as well as menu names, paths and options.
	Cross-references to other documentation
Example text	Emphasized words or phrases in body text, titles of graphics and tables
EXAMPLE TEXT	Names of elements in the system. These include report names, program names, transaction codes, table names, and individual key words of a programming language, when surrounded by body text, for example, SELECT and INCLUDE.
Example text	Screen output. This includes file and directory names and their paths, messages, names of variables and parameters, source code as well as 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. Pointed brackets indicate that you replace these words and characters with appropriate entries.
EXAMPLE TEXT	Keys on the keyboard, for example, function keys (such as F2) or the ENTER key.

Icons

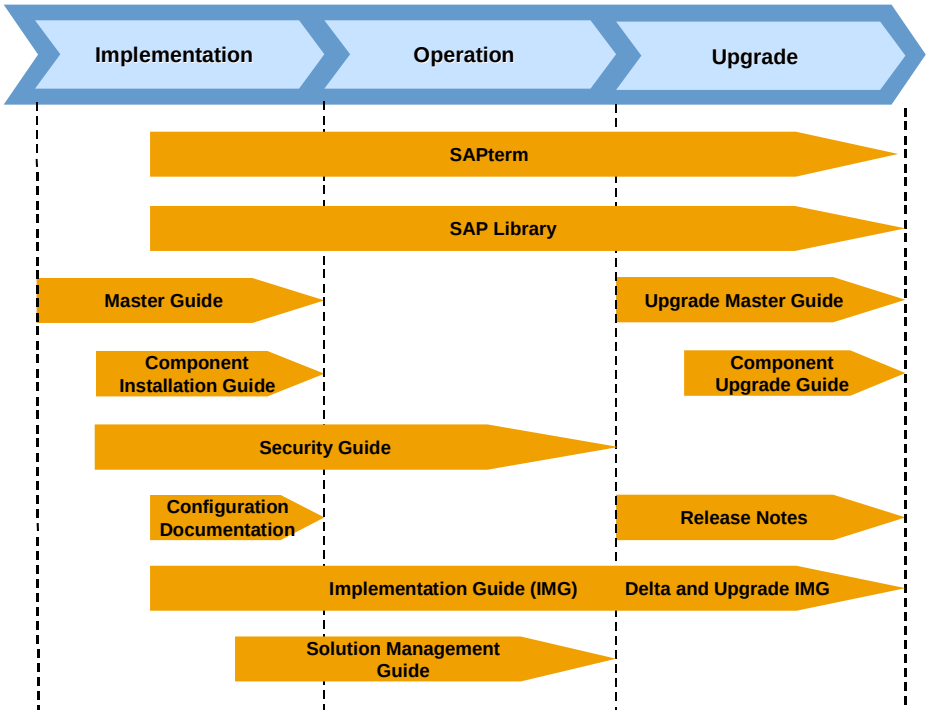
Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

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 the SAP Library [page 13].

The Main SAP Documentation Types

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

Documentation types in the software life cycle



Cross-phase documentation

SAPterm

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

- Target group:

  Relevant for all target groups

- Current version:

  Located in the *SAP Service Marketplace* at **`service.sap.com/sapterm`**

SAP Library

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

- Target group:
  - Consultants
  - System administrators
  - Project teams for implementations or upgrades

- Current version:
  - See Accessing the SAP Library [page 13].

Implementation Guide (IMG)

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

- Target group:
  - Solution consultants
  - Project teams for implementations or upgrades
- Current version:

  In the SAP menu of the SAP system under *Tools* → *Customizing* → *IMG*

Security Guide

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

- Target group:
  - Technology consultants
  - Solution consultants
  - Project teams for implementations or upgrades
- Current version:
  - Located in the SAP Library (see Accessing the SAP Library [page 13] at SAP at *SAP NetWeaver* → *Security* → *SAP NetWeaver Security Guide)*

Implementation

Master Guide

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

- Target group:
  - Technology consultants
  - System administrators
  - Project teams for implementations
- Current version:

  Located in the *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`**

Component Installation Guide

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

- Target group:
  - Technology consultants
  - Project teams for implementations
- Current version:

  Located in the *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`**

Production operation

Technical Operations Management

The Technical Operations Manual is the starting point for operating an SAP NetWeaver™ . The guide refers users to the tools and documentation that are needed to carry out various tasks, such as monitoring, backup/restore, master data maintenance, transports, and tests. It also refers users to more detailed documentation in the SAP Library.

- Target group:
  - System administrators
  - Technology consultants
  - Solution consultants
  - Project teams for implementations or upgrades
- Current version:

  Located in the SAP Library (see more Accessing the SAP Library [page 13])

Upgrade

Upgrade Master Guide

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

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

  Located in the *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`**

Component Upgrade Guide

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

- Target group:

  - Technology consultants
  - Project teams for upgrades
- Current version:

  Located in the *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`**

Release Notes

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

- Target group:
  - Consultants
  - Project teams for upgrades
- Current version:
  - Located in the *SAP Service Marketplace* at **`service.sap.com/releasenotes`**
  - In the SAP menu of the SAP system under *Help* → *Release information* (only ABAP developments)
  - As part of the SAP Library *(see* Accessing the SAP Library [page 13])

History

The Upgrade Master Guide is regularly updated in *SAP Service Marketplace* at the Internet address **`service.sap.com/instguidesNW04.`**

Make sure you have the latest version of the Upgrade Master Guide by checking *SAP Service Marketplace* immediately before starting the upgrade.

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

Upgrade Master Guide Version	Important Changes
1.0 (March 31, 2004)	--first version---
1.1 (June 03, 2004)	Section 3.3.5 Upgrade Sequence (Development Environment): Changes in the installation documentation for SAP Web AS Java.
1.2 (December 17, 2004)	• SAP Knowledge Warehouse scenario *Certification (CTF)* deleted. • New graphics for Technical System Landscapes in several scenarios
1.3 (March 31, 2005)	• Information about SAP Enterprise Portal migration added

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1 Introduction

The Upgrade Master Guide provides a central starting point for the technical upgrade of your SAP solution.

To facilitate the upgrade process, all information within this document is grouped under scenario-based aspects. You can choose from several business scenarios and find all the information that is relevant for the technical upgrade of a specific business scenario in an enclosed section.

Overview of the Main Sections

The Upgrade Master Guide comprises the following main sections:

- *Before You Start*

  This section contains information about how to use this document, and references to related documentation and SAP Notes.

- *Overview*

  This section contains:

  - A short introduction to the solution
  - Information about mandatory and optional software components and their minimum releases (*Software Component Matrix*)
  - Information on how to set up a Minimal System Landscape for test and demo purposes

- *Scenario-based sections*

  These sections contain the following information for each business scenario:

  - An overview of the technical infrastructure including information about how the different components interact, and what protocols and interfaces are used

    Depending on the amount of business functions and other aspects, such as security or performance, the production infrastructure may be different.
  - Information about the overall upgrade sequence and subsequent steps
  - Preparations and post-upgrade activities, if necessary
  - References to related Component Upgrade Guides

- *References*

  This section contains an overview of additional guides which, depending on the amount of business functions, are required to upgrade specific business scenarios.

See Also

For the most up-to-date information about the technical upgrade of this SAP solution, and the latest installation and upgrade guides, see the *SAP Service Marketplace* at the Internet address **`service.sap.com/instguidesNW04`**.

We strongly recommend that you use the documents that are available on these pages. These guides are updated on a regular basis.

The technical implementation of this SAP solution is described in the documentation *Master Guide - <SAP Solution>*. Refer to this documentation for information on new business scenarios and implementation options. Refer to this documentation also for information on the single SAP NetWeaver components. The Master Guide is available on SAP Service Marketplace at **`service.sap.com/instguidesNW04`**.

1.1 Before You Start

1.1.1 SAP Notes

You **must** read these SAP Notes **before** you start the upgrade. They contain the most recent information on the upgrade, as well as corrections to the upgrade documentation.

Make sure that you have the up-to-date version of each SAP Note, which you can find on SAP Service Marketplace at the Internet address **`service.sap.com/notes`**

List of Important SAP Notes

SAP Note Number	Title
685000	*Upgrade Master Guide SAP NetWeaver ´04*
707730	*Release Restrictions of SAP NetWeaver '04*

1.1.2 More Information

List of Related Information

Content	Location on SAP Service Marketplace/in the SAP Library
Latest versions of installation and upgrade guides for SAP NetWeaver	**`service.sap.com/instguidesNW04`**
Solution-specific upgrade information in the SAP Upgrade Info Center	**`service.sap.com/upgrade`** → *Solution-Specific Information*
Supported platforms	**`service.sap.com/platforms`** → *Availability of SAP Components in Detail*
Sizing information	**`service.sap.com/sizing`**
Information about technical infrastructure	**`service.sap.com/ti`**
Information about network security	• *Network Integration Guides*: **`service.sap.com/network`** • *SAP Security Guide:* Located in the SAP Library (see Accessing the SAP Library [page 12]) at *SAP NetWeaver Components → Security → SAP NetWeaver Security Guide.*
The latest version of the configuration guides for SAP NetWeaver	**`service.sap.com/ibc`**
Information about the technical operation of SAP NetWeaver	*Technical Operations Manual:* Located in the SAP Library (see *Accessing the SAP Library [page 13]*) at *SAP NetWeaver → SAP NetWeaver Technical Operations*

	Manual
Information about installing SAP NetWeaver ´04 Support Package Stacks.	*Support Package Stack Guide – SAP NetWeaver '04:* `service.sap.com/instguidesNW04` → *Operations*

1.1.3 Upgrade Roadmap

As a central guide for the entire project team, the SAP Upgrade Roadmap (Version 2.0) provides SAP's latest upgrade methodologies to plan and execute an SAP upgrade project. It bundles SAP's latest knowledge and best practices on basic project management and on the functional and technical aspects of upgrading an entire SAP system landscape.

Using the Upgrade Roadmap with the SAP Solution Manager provides additional benefits such as more tailored access to specific upgrade information and project tracking capabilities. Download the Upgrade Roadmap content in Solution Manager format (transport request) from SAP Service Marketplace at **`service.sap.com/solutionmanager`** → *Downloads* → *Other Content.*

1.1.4 Accessing the SAP Library

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

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

  Choose *Help* → *SAP Library*.

  The browser starts.

- The SAP Help Portal at **`help.sap.com`**:

  a. Choose *SAP NetWeaver* → *SAP NetWeaver 04*.

  b. Select the required language.

- The help files on the online documentation CDs

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

2 SAP NetWeaver™ 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.

You can upgrade to the following SAP NetWeaver™ ´04 scenarios:

- SAP Business Information Warehouse
- SAP Exchange Infrastructure
- SAP Web Application Server – Development Environment
- SAP Mobile Infrastructure
- SAP Knowledge Warehouse

2.1 Software Component Matrix

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

Note that there are software requirements for each component below which are not explicitly mentioned in this documentation. They are documented in the relevant installation guides. All related implementation guides are listed in References [page 49].

For the latest component version and patch level requirements, see SAP Service Marketplace at `service.sap.com/sp-stacks`.

Scenario / Software Component Matrix (M = mandatory / O = optional)

Software Component	**Scenario**					
	SAP BW	**SAP EP**	**SAP XI**	**SAP Web AS – Development Environment**	**SAP Mobile Infrastructure (SAP MI)**	**SAP Knowledge Warehouse**
SAP Web AS Components						
SAP Web AS ABAP 6.40 including PI_BASIS 6.40	M		M (Unicode version required)	O[1)]	M	M
SAP Web AS Java 6.40 including: • J2EE Engine • SAP Java Connector (SAP JCo) • SAP Java Tech Services	O	M	M (Unicode version required)	O [1)]	M	M
SAP Java Development Infrastructure (JDI) 1.00				O [1)]		
SAP NetWeaver Developer Studio				O [1)]		
SAP IGS 6.40	M					
SAP GUI 6.20	M (requires SAP BW			O [1)]		M

	Add-On)					
SAP ITS 6.20						O
SAP Gateway 6.40						M
SAP XI Components						
SAP XI 3.0: Integration Server, SAP System Landscape Directory, Integration Builder			M			
Adapter Engine			M			
Plain J2SE Adapter Engine			O			
SAP BW Components						
SAP BW 3.5	M					
SAP BW Business Content Add On BI_CONT 3.5.1	M					
SAP BW Java Components consisting of: • SAP BI Universal Data Integration (BI UDI) 3.5 • SAP BI Meta Model Repository (BI MMR) 3.5	O					
SAP BW Precalculation Service 3.5	O					
SAP EP Components						
Portal Platform 6.0 SP 3		M				O
Content Management & Collaboration 6.0 SP03		O				O
Search & Classification Components						
Search & Classification (TREX) 6.1	O	O				M
SAP MI Components						
SAP Mobile Infrastructure 2.5					M	

SAP KW Components						
SAP Internet Knowledge Servlet 1.00						M
SAP Content Server 6.30						M
Portal Integration Servlet 2.00						O
Others						
SAP R/3	O (3.1H to 4.6C)					

[1] The components you use strongly depend on the scenario you have implemented.

The distribution of the software components to the DVDs/CDs contained in the SAP NetWeaver ´04 package is listed in the *Media Information* document. The *Media Information* document is available on SAP Service Marketplace at **`service.sap.com/instguidesnw04`** → *Upgrade*.

2.2 Valid Source Releases

The following table lists the valid source releases for the main SAP NetWeaver components.

Component	Valid Source Releases
SAP BW	• 2.0B SP26 • 2.1C SP18 • 3.0B SP03 • 3.1 Content with BI_CONT 3.10 – 3.30
SAP EP	• EP 5.0 SP06 • EP 6.0 SP02
SAP XI	• 2.0 For information on the required Support Package level, see **SAP Note 696034**.
SAP Web AS	• 4.6D • 6.10 • 6.20 • 6.30 (Java)
SAP MI	• 1.0 • 2.0 • 2.1
SAP KW	• 5.2 • 6.0

3 Upgrade

3.1 SAP BW

The former Performant Sales Reporting scenario has become the SAP BW scenario of SAP NetWeaver ´04. In addition, it has been enhanced with new functions, which means that it covers a broader range of business cases.

Depending on what extra components you use and how you configure your SAP BW system, you can use SAP BW for different business purposes.

In general, there are *staging* and *reporting* scenarios. For the staging scenario, you can use SAP systems or external databases as the data source. The reporting scenarios are based on the staging scenario with SAP systems as the data source.

Staging scenarios:

- SAP BW staging with SAP systems as the data source

  You configure SAP BW with SAP R/3 as the data source, upload data into prepared InfoCubes, and create and use aggregates.

  Upload sales data into BW:

  - Amount of customers and their value
  - The relevant vendors and their delivery time
  - Customer collections survey (payment period, credit memo, payment)

- SAP BW staging with external data sources on Oracle and Teradata and all databases that can be accessed with JDBC

  Configure SAP BW with an external data source and upload data to BW InfoCubes by using the Universal Data Connect feature of SAP BI Universal Data Integration.

Reporting scenarios:

- Reporting with SAP BW Business Explorer and Precalculation

  Use the SAP BW Business Explorer with delivered queries and save your results in MS Excel Workbooks. To calculate the results in advance, use the SAP BW Precalculation Service.

- Reporting with SAP BW Web Applications and Precalculation

  Use the SAP BW Web Application Designer to create your Web Applications. The HTML Precalculation speeds up performance.

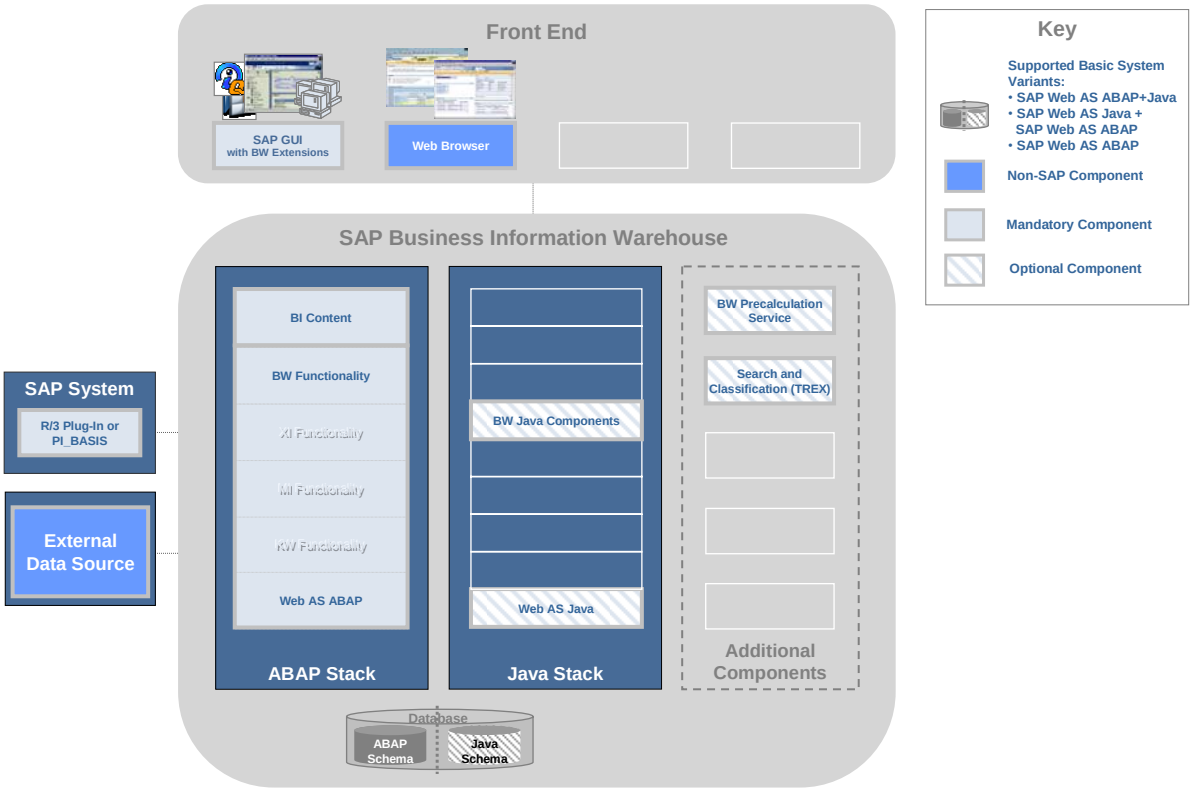
- Reporting with SAP BW Web Service for xml/a

  Configure your SAP BW system for SAP BW Web Service and create your own Reporting Application using the Web Service.

3.1.1 Technical System Landscape

3.1.1.1 Landscape

The following graphics show the main components of the SAP Business Warehouse scenario and the communication between the components.



3.1.2 Preparation

All BW-specific preparations are described in the documentation *Component Upgrade Guide – SAP Business Information Warehouse 3.5: <Operating System>*.

3.1.3 Upgrade Sequence

The following table tells you the sequence in which you have to perform the upgrade or installation steps.

For information about the required component versions and patch levels, see the Software Component Matrix [page 15] and the SAP Service Marketplace at `service.sap.com/sp-stacks`.

For information on where to find the referenced documentation, see section Documentation [page 49].

Rows that contain optional components are highlighted in gray.

No.	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Upgrade the SAP BW server. If an SAP SEM add-on is or has ever been installed on your SAP BW system, you can only upgrade your SAP BW system if you upgrade the SAP SEM add-on at the same time. For details about the availability of SAP SEM 4.0, see the SAP Service Markteplace at `service.sap.com/sem` → *Development News & Release Notes* → *SEM & BA Release Schedule*. [*Component Upgrade Guide – SAP Business Information Warehouse 3.5: <Operating System>*]	• The required Basis plug-in (PI_Basis) is included in the upgrade. • The Enterprise Portal plug-in (WP-PI) is included in the Basis plug-in as of SAP Web AS 6.40. For more information, see **SAP Note 634214**. • You must update the BI_CONT add-on during the upgrade of the SAP BW server. The upgrade process prompts you for the required CD at the appropriate point in time. This prompt also appears if the add-on is not installed in your system, which is the case if your source release is 3.0B or lower. For more information about the upgrade to BI_CONT 3.5.1, see **SAP Note 634214**. • For the conversion of chart settings after the server upgrade, a specific SAP IGS installation including the Chart Migrator is required. For information, see the documentation *Component Upgrade Guide – SAP Business Information Warehouse 3.5: <Operating System>.* • After the upgrade of SAP BW, the system does not display the SAP Easy Access Menu automatically. For information about how to maintain the SAP Easy

		Access Menu for SAP BW manually, see **SAP Note 725184**.
2	Optional: Install SAP J2EE Engine including Java SDK / JRE [*Installation Guide – SAP Web Application Server Java on <Platform>: <Database>*]	The installation of the SAP J2EE Engine is only required for *BW Staging with external system as data source.*
3	Optional: Install the Business Warehouse Java Components consisting of: • SAP BI Universal Data Integration • SAP BI Meta Model Repository [*Installation Guide - SAP Business Information Warehouse*]	The installation of the SAP Business Warehouse Java Components is only required for *BW Staging with external system as data source.*
4	Optional: Install or update Search and Classification (TREX). For an update from TREX 6.0 see the documentation *Migration from TREX 6.0 SP1 to TREX 6.1*. For a new installation of Search and Classifcation 6.1, see the documentation *Installation Guide Search and Classification (TREX) 6.1.* Use the following parameters (for more information, see the documentation *Installation Guide – Search and Classification (TREX)*): • Perform the installation steps to set up an RFC connection. • Automatic language recognition is not required. You can adopt the default settings for document languages during the installation of Search and Classification (TREX). • No Python extensions are required. • After the installation of Search and Classification (TREX), create a search server relation. After the new installation of Search and Classification (TREX), you must run the report RSTIRIDX in your SAP BW system [page 23]. [*Installation Guide – Search and Classification (TREX)*]	This component is optional for *SAP BW Reporting with Business Explorer Analyzer* and *SAP BW Reporting with BW Web Applications*.
5	Optional: Upgrade the SAP R/3 back-end plug-in to at least version 2003.1. **Documentation:** Composite SAP Note **597635**: *R/3 plug-in: PI 2003.1 installation/delta upgrade)* For detailed information about the plug-ins (supported versions and Support Package level of SAP R/3 system), see SAP Service Marketplace at **`service.sap.com/bw`** → *BW Extractors Plug-In*.	Only required if you use SAP R/3 backend as the data source.

6	If necessary, upgrade to SAP GUI 6.20, including the BW add-on on each host for which you want to create a connection to the SAP BW 3.5 Server. [*SAP Front End Installation Guide*]	
7	Optional: Install the SAP BW Precalculation Service 3.5 [*Installation Guide - SAP Business Information Warehouse*]	This component is only required for *SAP BW Reporting with Business Explorer Analyzer*.

3.1.6 Post-Upgrade Activities

3.1.6.1 Scheduling Asynchronous Indexing and Deindexing

Use

This step is only needed if you use the Knowledge Provider (KPro) component.

Asynchronous indexing and deindexing is triggered using the report RSTTIRIDX. Schedule this report as a daily background process.

The report RSTIRIDX starts the indexing and deindexing of scheduled documents, and logs indexing errors in the production system. The chosen recipient can view the contents of the report using the transaction SO01. If an error occurs, check in IMS Monitoring.

Prerequisites

To use a report, you need *Batch Administrator* authorization for the authorization object *Batch Processing*.

Procedure

1. In the SAP system, call transaction SM36 or choose *System* → *Services* → *Jobs* → *Define Jobs* from the menu.

   The *Define Background Job* screen appears.
2. In the field *Job Name*, enter **`INDEXING`**.
3. In the field *Job Class*, choose *B*.
4. In the field *Target Server*, enter the name of the host on which you want to run the background process.
5. Choose *Spool List Recipient.*

The *Recipient Determination* dialog box appears .

6. In the field *Recipient*, enter the name of the desired recipient. Then select the required *General Attributes*, and choose *Copy*.
7. From the application toolbar on the *Define Background Job* screen, choose *Start Condition*.

   The *Start Time* dialog box appears.
8. Choose *Date/Time*.
9. Enter the required start date and time.
10. Select the option *Periodic Job* and choose *Period Values*

    The *Period Values* dialog box appears.
11. Choose *Daily*.
12. Choose *Save.*
13. In the *Start Time* dialog box, choose *Save* again.
14. From the application toolbar, choose *Step*.

    The *Create Step* dialog box appears.
15. Choose *ABAP Program*.
16. In the *ABAP Program* group box, enter the name **`RSTIRIDX`** in the *Name* field.
17. Choose *Print Specifications*.

    The *Background Print Parameters* dialog box appears.
18. Enter the name of the output device and choose *Properties.*

    The *Spool Request Attributes* dialog box appears
19. On the *Overview* tab page, select *General Properties* and double-click *Time of Printing.*
20. In the group box *Other Properties "Time of Printing"*, choose the option *Print out immediately* from the listbox.
21. Confirm your entries with *O.K*.

3.2 SAP Enterprise Portal

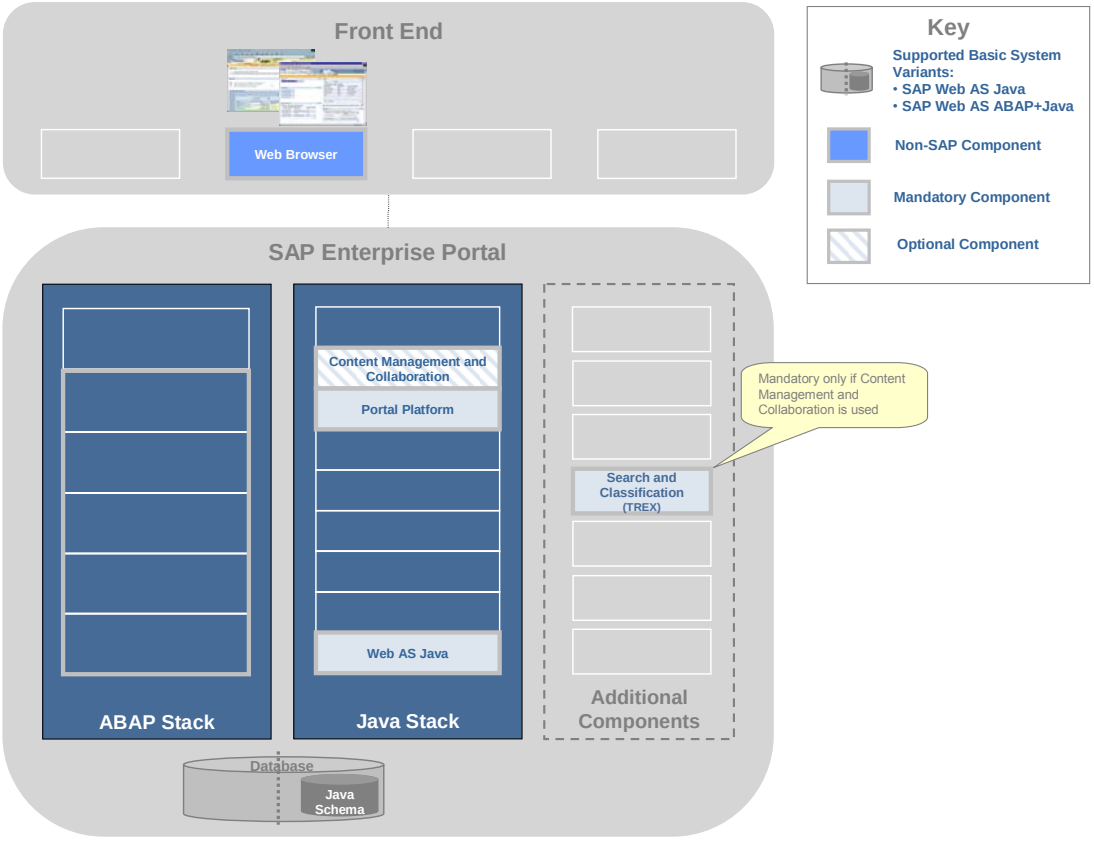
You can migrate to SAP Enterprise Portal 6.0 on Web AS 6.40 (SAP EP 6.0 SP09), which is a building block of SAP NetWeaver ´04, from the following source releases:

- SAP EP 5.0 SP06
- SAP EP 6.0 SP02

The migration procedures for both parts are very different. They both have in common, that a new installation of SAP EP 6.0 on Web AS 6.40 is required. Subsequently, the Portal Platform and Knowledge Management content is migrated and adapted to the SAP Web AS Java 6.40.

3.2.1 Technical System Landscape

The following figure shows the technical system landscape of SAP Enterprise Portal:



For earlier releases than SAP NetWeaver ’04 SR1, we do not support the installation of the SAP Enterprise Portal components (Portal Platform and Content Management and Collaboration) on SAP Web AS ABAP+Java systems, but only on standalone SAP Web AS Java systems.

3.2.2 Upgrade Sequence

The following table tells you the sequence in which you have to perform the upgrade or installation steps.

For information about the required component versions and patch levels, see the Software Component Matrix [page 15] and the SAP Service Marketplace at `service.sap.com/sp-stacks`.

For information on where to find the referenced documentation, see section Documentation [page 49].

Rows that contain optional components are highlighted in gray.

SAP Note Number Title

No.	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Perform the SAP EP migration as described in the following documents: • *How-to Guide - Migrating from SAP EP 5.0 to SAP NetWeaver ´04 SR1* **SAP Note 732461** *Migration of EP & KM from 5.0 to NW '04* • *How-to Guide - Migrating from SAP EP 6.0 SP02 to SAP NetWeaver ´04 SR1* **SAP Note 732458** *Migration Enterprise Portal 6.0 SP2 to NW '04* See also **SAP Note 766765** *Central Note – SAP EP 6.0 on Web AS 6.40 Release NW '04 SR1*	
2	Optional: Install or update Search and Classification (TREX). For an update from TREX 6.0 see the documentation *Migration from TREX 6.0 SP1 to TREX 6.1*. For a new installation of Search and Classifcation 6.1, see the documentation *Installation Guide - Search and Classification (TREX) 6.1.* Use the following installation parameters for the Search and Classification (TREX) installation (for more information, see the documentation *Installation Guide – Search and Classification (TREX)*): • Perform the installation steps to set up an **HTTP** connection.	Install Search and Classification (TREX) only, if you installed Content Management and Collaboration.

	• During Search and Classification (TREX) installation, select the languages you want Search and Classification (TREX) to recognize. Search and Classification (TREX) uses this information to perform the language recognition procedure, which is necessary for indexing documents. • No Python extensions are required. [*Installation Guide – Search and Classification (TREX)*]	

3.3 SAP Exchange Infrastructure

Technically, the main part of the upgrade of the SAP Exchange infrastructure is performed using a migration procedure. Therefore, it is mainly referred to as the SAP Exchange Infrastructure migration.

The following paragraphs provide an overview of the SAP Exchange Infrastructure migration.

For a detailed explanation of the Exchange Infrastructure migration, see the *Component Upgrade Guide – SAP Exchange Infrastructure*.

The following terms and abbreviations are used in the sections that concern the SAP Exchange Infrastructure:

List of Terms and Abbreviations

Term	Abbreviation	Explanation & Comments
Integration Server	IS	
Integration Builder	IB	
SAP System Landscape Directory	SLD	
Exactly-Once	EO	Asynchronous, transactionally secure message protocol, quality of service for XI message transmission
Exactly-Once-In-Order	EOIO	Asynchronous, transactionally secure message protocol with a serialization guarantee, quality of service for XI message transmission obeying strict serialization
SAP Exchange Infrastructure	SAP XI	

3.3.1 Technical System Landscape

Landscape Considerations

Complete XI landscapes consist of landscapes for development (DEV), quality assurance (QA) and production (PRD). Landscapes are described in the SAP System Landscape Directory (SLD) with two basic setup options:

- Multiple SLDs:
  - DEV landscape described in SLD_DEV
  - QA landscape described in SLD_QA
  - PRD landscape described in SLD_PRD
- Centralized SLD

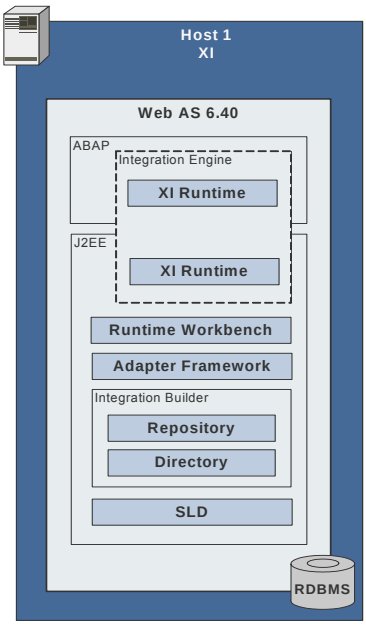
  All sub-landscapes, DEV, QA, and PRD, are described in one central SLD, known as SLD _CENTRAL.

The strategy for migrating the complete landscape varies, depending on this principal SLD setup decision. Details for both possible cases are described in the documentation *Component Upgrade Guide –SAP Exchange Infrastructure*.

The Integration Server and Integration Builder of a given sub-landscape (DEV, QA, or PRD) must be migrated to version 3.0 in one single step. Any type of partial migration scenarios (merge scenarios, and so on) are not supported in the XI 2.0 to XI 3.0 migration.

Note that the migration process is the only way to transport content from XI 2.0 to XI 3.0 releases. There is no other means of cross-version transport for Integration Builder content.

XI All-In-One System Production Landscape



3.3.2 General Description of the Migration

The migration of a single XI landscape (DEV, QA, or PRD) contains the following basic building blocks:

- Migrate the SAP System Landscape Directory (SLD) to the new release.

  This is also described in the *Component Upgrade Guide – SAP Exchange Infrastructure*.

- Migrate the Integration Server and Builder from XI 2.0 to 3.0

  This migration is described in the *Component Upgrade Guide – SAP Exchange Infrastructure*.

- Upgrade the Integration Engines (IE) from XI 2.0 to 3.0

  SAP systems with XI Integration Engines are application systems. These may or may not be upgraded to XI release 3.0. The individual applications (SAP BW, SAP CRM, and so on) can choose whether they want to upgrade or not. In any case, the XI Integration Server will provide compatibility for 2.0 IE inside its XI landscape.

If an IE needs to be upgraded, this is handled as part of the standard SAP Web Application Server (SAP Web AS) upgrade in the usual way, which is well-known from all applications based on SAP Web AS.

This type of upgrade is described in the documentation *Component Upgrade Guide – SAP Web Application Server 6.40: <Platform>*. You can find the documentation in SAP Service Marketplace under **`service.sap.com/instguidesNW04`** → *Upgrade*.

- Adapters and Adapter Engines are not upgraded as such, but installed from scratch with a new release (making use of XI 2.0 – XI 3.0 message compatibility in the Integration Server).

  For more information, see the relevant installation procedures for adapters and XI Adapter Engines.

The starting point of the migration to XI 3.0 is a an installation of XI 2.0, with a running Integration Builder and Integration Server. These main parts of XI may be running in a distributed (different servers) or in an All-In-One (one server) configuration. The Integration Builder of XI 2.0 runs on SAP DB only. Integration Server 2.0 may run on either SAP DB or Oracle. The Integration Server system may consist of multiple SAP Web Application Servers.

Since the XI Integration Server requires SLD and Integration Builder data for its runtime processing, all components must be migrated in a joint procedure. The main features of the XI migration process are:

- Short XI downtime
- Shift of the point-of-no-return to the latest possible stage within the upgrade procedure
- Option of a distributed XI 2.0 installation as the start configuration (different servers for Integration Server and Integration Builder)
- Move a distributed XI 2.0 installation to an All-In-One 3.0 installation as the end configuration (which is the default in XI 3.0)
- Option of implicitly migrating the Integration Server/Builder (IB was restricted to database system SAP DB in XI 2.0) from one database system to another
- Transfer of operative XI 2.0 configuration to the XI 3.0 domain
- XI 2.0 adapters and XI 2.0 application systems work together seamlessly with the new IS 3.0 (that is, old systems may remain on XI 2.0 even when they communicate with IS 3.0)

The XI migration procedure results in a running XI 3.0 Integration Builder and Integration Server in an All-In-One configuration. XI 3.0 can now be run on any database of SAP Web AS. Any number of SAP Web AS application servers may be added to the system.

3.3.3 Preparation

Apart from the activities for preparing the single steps stated below, make sure that the **Integration Server** on the source release has the required Support Package level. For more information on the Support Package level, see **SAP Note 696034**.

3.3.4 Migration Sequence

This section describes the required steps for the migration procedure of a single landscape (DEV, QA, or PRD) from release XI 2.0 to XI 3.0.

For a detailed procedure with explanations, see the documentation *Component Upgrade Guide – SAP Exchange Infrastructure*.

The documentation also contains details on migrating the complete overall landscape (DEV, QA, and PRD).

No.	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install and customize the Integration Server, Integration Builder and SLD of Release 3.0 on a separate host machine (All-In-One) in parallel with the components of Release 2.0. [*Component Installation Guide – SAP Exchange Infrastructure*]	[You can find the documentation in *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`** → *Installation*]
2	Migrate the contents of the SAP System Landscape Directory (SLD) to the XI 3.0 instance. [*Component Upgrade Guide – SAP Exchange Infrastructure*]	[You can find the documentation in *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`** → *Upgrade*]
3	Migrate the contents of the XI Integration Builder from the 2.0 to the 3.0 instance. [*Component Upgrade Guide – SAP Exchange Infrastructure*]	[You can find the documentation in *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`** → *Upgrade*]
4	Refresh the cached contents of the Integration Builder in the Integration Server 3.0. [*Component Upgrade Guide SAP – Exchange Infrastructure*]	[You can find the documentation in *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`** → *Upgrade*]
5	Migrate the contents of the Integration Server from the 2.0 to the 3.0 instance. [*Component Upgrade Guide – SAP Exchange Infrastructure*]	[You can find the documentation in *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`** → *Upgrade*]
6	Switch the addressing of application systems and adapters to the Integration Server 3.0 instance. [*Component Upgrade Guide – SAP Exchange Infrastructure*]	[You can find the documentation in *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`** → *Upgrade*]

3.4 SAP Web AS – Development Environment

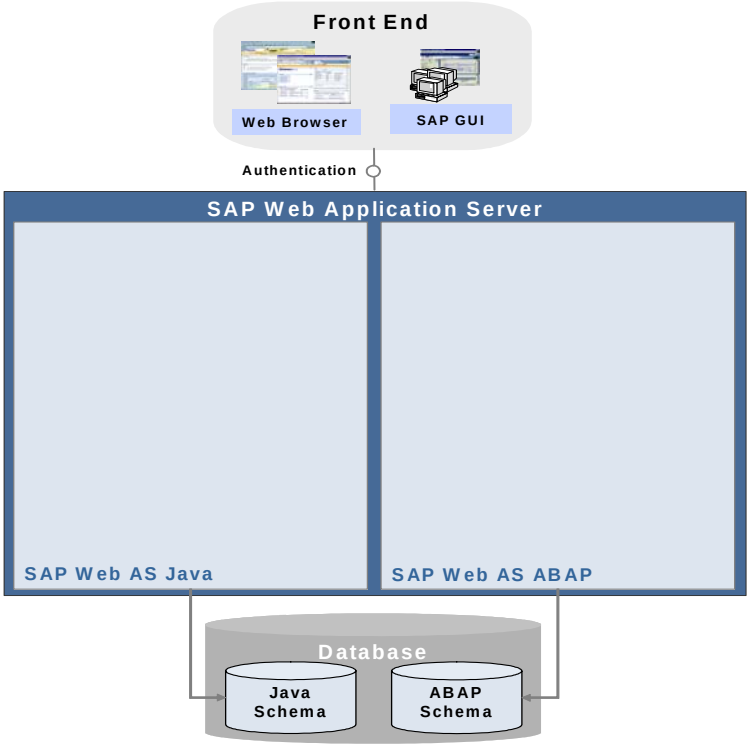
Overview

SAP NetWeaver offers a rich development environment for Web applications and Web Services written in ABAP or Java.

The SAP Web Application Server (SAP Web AS) is the technical infrastructure for ABAP and Java development and execution. SAP Web AS consists of the following main parts:

- SAP Web AS ABAP (includes the ABAP Engine as runtime for ABAP applications)
- SAP Web AS Java (includes the J2EE Engine as runtime for Java applications)

SAP Web AS with SAP Web AS ABAP and SAP Web AS Java



ABAP-based applications are developed with ABAP Workbench. The ABAP Workbench is an integral part of SAP Web Application Server. Therefore, if you install an SAP Web Application Server, it can serve both as the development environment and the runtime environment. For more information, see section “Development of ABAP Applications” in *SAP NetWeaver Master Guide*.

Java-based applications are developed with SAP NetWeaver Developer Studio. Since the SAP NetWeaver Developer Studio is installed on the developer’s PC, applications need to be deployed to the SAP J2EE Engine that serves as the runtime environment. For more information, see section “Development of Java Applications” in *SAP NetWeaver Master Guide*.

If you develop large Java projects, SAP NetWeaver offers central services for team development such as source code control based on repository access, maintenance of

central configuration data, and build services. If you simply want to version your sources, a central source repository is sufficient. In this case, see section “Team-Oriented Development of Java Applications” in *SAP NetWeaver Master Guide*. However, if you plan to take full advantage of SAP’s development infrastructure, you should develop your applications according to SAP’s component model for Java. In this case, see section “Component-Based Development of Java Applications” in *SAP NetWeaver Master Guide*.

Development Scenarios of SAP Web AS

SAP NetWeaver Development Environment consists of the following subscenarios:

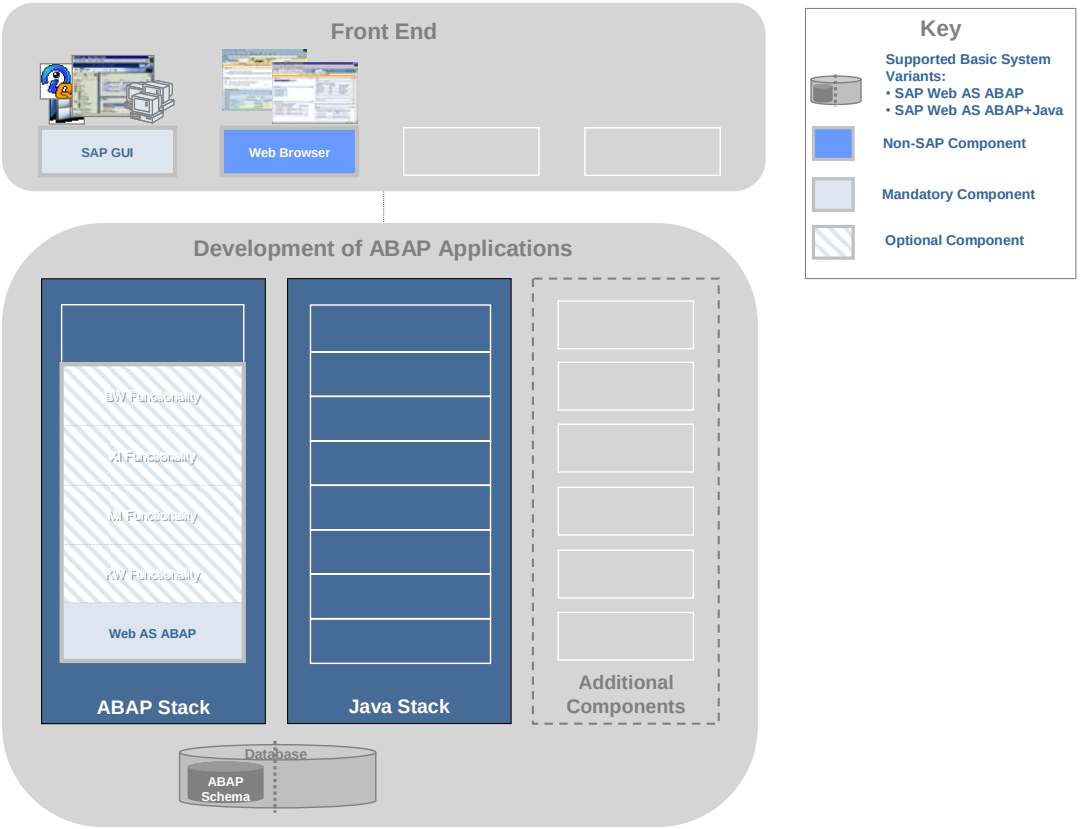
- Development of ABAP applications
- Development of Java applications
- Team-Oriented Development of Java applications
- Component-Based Development of Java applications

For more information on the scenarios, see *SAP NetWeaver Master Guide*.

3.4.1 Technical System Landscape

Architecture for Development of ABAP Applications

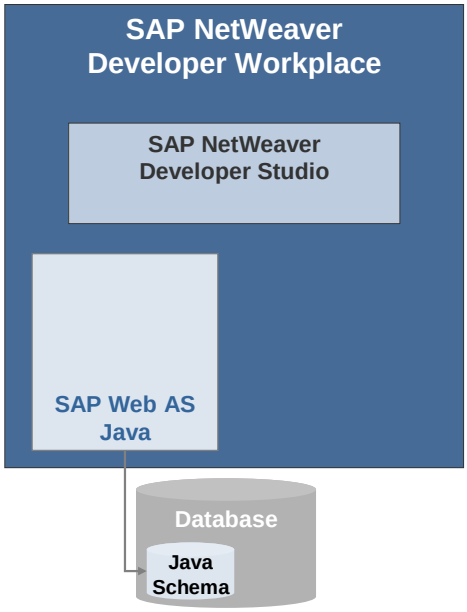
The following graphic shows the underlying architecture for the development of ABAP applications including existing interconnections.



Architecture for Development of Java Applications

There are many options for configuring the SAP system landscape for developing Java applications. For a description of all the options, see *SAP NetWeaver Master Guide*.

In the following, we will only describe the upgrade of a simple single Developer Workplace installation.



3.4.2 General Description of the Upgrade

The upgrade sequence differs depending on whether you are developing ABAP or Java applications. The upgrade sequence of the system landscape for the development of ABAP applications largely depends on the components you are using in your source system landscape. The main building block, however, is the standard upgrade of SAP Web Application Server (ABAP). The upgrade of the system landscape for the development of Java applications has two main blocks, the upgrade of J2EE Engine and the upgrade of SAP NetWeaver Developer Studio.

3.4.3 Planning

There are no separate planning activities apart from the planning activities described in the individual upgrade or installation guides.

3.4.4 Preparation

There are no separate preparation activities apart from the preparation activities described in the individual upgrade or installation guides.

3.4.5 Upgrade Sequence

The following table tells you the sequence in which you have to perform the upgrade or installation steps.

For information about the required component versions, see the Software Component Matrix [page 15]. For the latest patch level requirements, see SAP Service Marketplace at **`service.sap.com/sp-stacks`**.

Upgrade of the System Landscape Used for Development of ABAP Applications

No.	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Upgrade the SAP Web Application Server ABAP. [*Component Upgrade Guide – SAP Web Application Server: <Platform>*]	[You can find the upgrade documentation in *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`** → *Upgrade*]
2	Optional: If you have used the J2EE Engine before, migrate the J2EE Engine.	You need the J2EE Engine if you are also using J2EE applications. Proceed as follows: • For source release 6.20, you must first deinstall the J2EE Engine. Follow the instructions given by the tool `SAPinst` for the target release. To install the new J2EE Engine 6.40, see the documentation *Installation Guide – SAP Web Application Server Java on <Platform>: <Database>*. For information on the overall migration procedure, see the online documentation under *SAP NetWeaver → Application Platform → J2EE Technology in SAP Web Application Server → Migration Manual*. • For source release 6.30, you can **directly** import Support Package 04. For Information on importing Support Package 04, see the documentation *SAP Web Application Server Support Package Guide 630SP2 to 640SP4*. For information on importing further Support

		Packages, see the documentation *Support Package Stack Guide – SAP NetWeaver ´04: Stack <xx>*. [You can find the documentation in *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`** → *Installation* (Source Release 6.20) or **`service.sap.com/instguides`** → *SAP Components* → *SAP Web Application Server* → *Release 6.30* and **`service.sap.com/instguidesNW04`** → *Operations* (Source Release 6.30)]
3	Optional: Update the SAP GUIs for access of the ABAP Workbench. [*SAP Front End Installation Guide* (available in English and German)]	[You can find the upgrade documentation in *SAP Service Marketplace* at the internet address **`service.sap.com/instguidesNW04`** → *Installation*]
4	Optional: If you want to develop Web applications, make sure that the corresponding prerequisites are met (for example, corresponding Web browsers must be installed on the development hosts).	For more information, see the SAP online documentation under *SAP NetWeaver* → *Application Platform (SAP Web Application Server)* → *ABAP Technology* → *UI Technology* → *Web UI Technology* → *Business Server Pages* → *Web Applications and Business Server Pages* → *BSP Tutorials* → *Getting Started with Business Server Pages* → *Prerequisites for Creating Web Applications.*

Upgrade of the System Landscape Used for Development of Java Applications

No.	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Migrate the SAP J2EE Engine.	Proceed as follows: • For source release 6.20, you must first deinstall the SAP J2EE Engine. Follow the instructions given from the tool `SAPinst` for the target release. To install the new SAP J2EE Engine 6.40, see the documentation *Installation Guide – SAP Web Application*

		Server Java on <Platform>: <Database>. For information on the overall migration procedure, see the online documentation at *SAP NetWeaver → Application Platform → J2EE Technology in SAP Web Application Server → Migration Manual*. • For source release 6.30, you can **directly** import Support Package 04. For Information on importing Support Package 04, see the documentation *SAP Web Application Server Support Package Guide 630SP2 to 640SP4*. For information on importing further Support Packages, see the documentation *Support Package Stack Guide – SAP NetWeaver ´04: Stack <xx>*. [You can find the documentation in *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`** → *Installation* (Source Release 6.20) or **`service.sap.com/instguides`** → *SAP Components → SAP Web Application Server → Release 6.30* and **`service.sap.com/instguidesNW04`** → *Operations* (Source Release 6.30)]
2	Upgrade the SAP NetWeaver Developer Studio. [*Installation Guide – SAP NetWeaver Developer Studio <Release >*]	[You can find the upgrade documentation in *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`** → *Installation*]
3	Optional: Install the SAP NetWeaver Java Development Infrastructure. [*Support Package Stack Guide – SAP NetWeaver ´04: Stack <xx>*]	The JDI includes the Design Time Repository (DTR). [You can find the upgrade documentation in *SAP Service Marketplace* at **`service.sap.com/instguidesNW04`** → *Operations*]

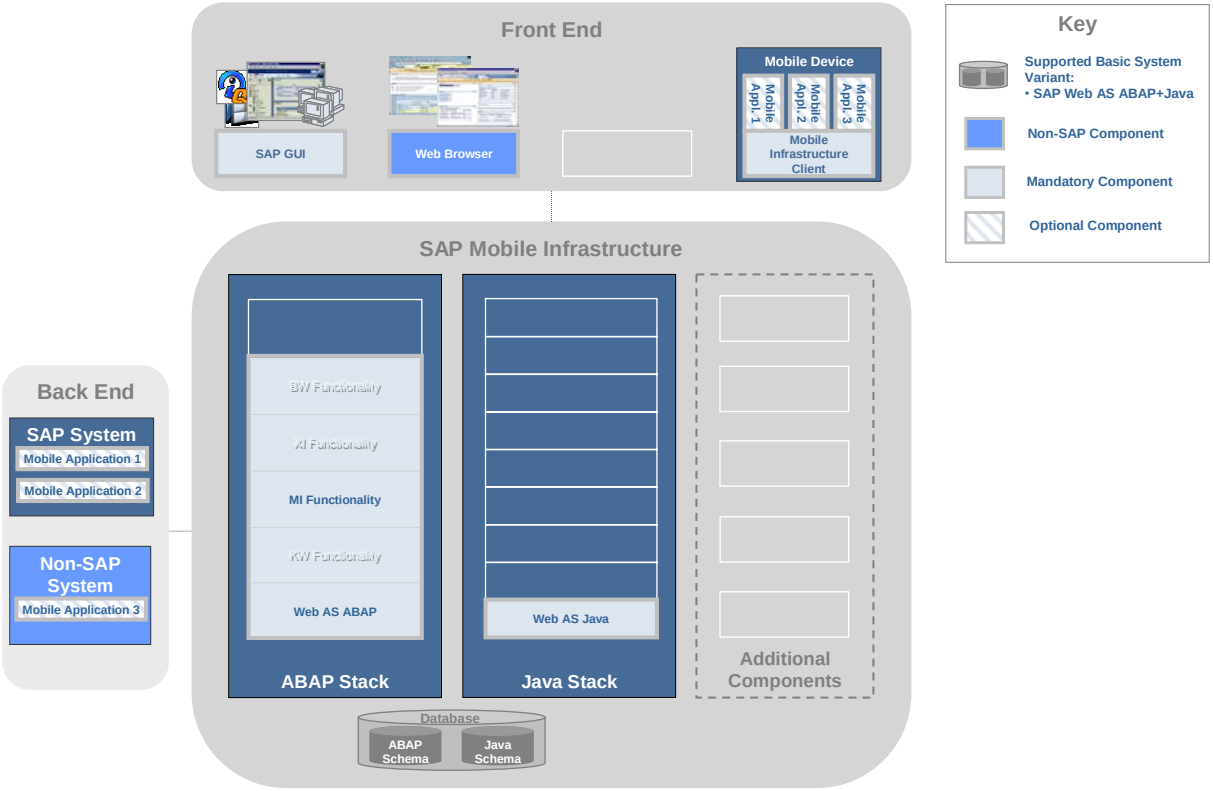
3.4.6 Post-Upgrade Activities

There are no separate post-upgrade activities apart from the post-upgrade activities described in the individual upgrade or installation guides.

3.5 SAP Mobile Infrastructure

3.5.1 Technical System Landscape

The following graphic shows the system architecture of SAP MI:



SAP MI consists of the several technical components that are described in the following sections:

SAP MI Client

The SAP MI Client provides a mobile application with the following services:

- UI programming models

  The standard programming model for mobile applications is Java Server Pages (JSP); however, the SAP MI 1.0 programming model microITS is still supported.

- Framework services

  The mobile applications are provided with the framework services in the form of Java APIs. The most important APIs are used for:

  - Data synchronization

    During synchronization, the SAP MI Client Component encodes the data using a 128-bit RDS method and also compresses the data.

  - Data persistence
  - Reading and writing replicated data
  - Connecting peripheral devices (native drivers)

- Tracing and XML parsing

SAP MI Server Component

The SAP MI Server contains the following components:

- SAP MI J2EE Server

  The SAP MI J2EE Server is an integral part of SAP Web AS Java. It is responsible for the following:

  - Installing the SAP MI Client

    If a mobile device logs on initially to the SAP MI J2EE Server, it determines which parts are required by the SAP MI Client and installs them on the mobile device. The local device drivers that are needed on the platform are also installed.

  - Administration of the mobile device

    The system administrator keeps an overview of the mobile devices in the field and can make various client settings (such as modem, class path, and the state of the battery) and certain server settings (such as load balancing and handling of synchronization errors) centrally.

- SAP MI ABAP Server

  The SAP MI ABAP Server is an integral part of SAP Web AS ABAP. It is responsible for the following:

  - Queuing and acknowledgement of synchronized data containers
  - Calling the application logic

    The application logic can be called synchronously or asynchronously, depending on the application.

  - Data replication
    - defines data packages for individual mobile devices (data allocation)
    - computes the data to be replicated again on the device (delta comparison)
    - finds and solves conflicts between the mobile device and the server application (conflict management)
    - provides a number of monitoring tools
  - Deployment of the mobile applications to the mobile devices

    Mobile applications are automatically deployed to a mobile device when the mobile device is synchronized. This process is controlled centrally by the Deployment Console. It permits the system administrator to assign application versions based on users or roles and so gives the administrator an overview of the mobile devices, error logs, and so on, that are being used in the field.

Back End

The backend of a mobile application consists of customizing and repository objects. Both types of objects are transported using the standard mechanisms of the SAP Change and Transport System.

3.5.2 Planning

When you plan the timeframe of your SAP Mobile Infrastructure upgrade, take into account the SAP Web Application Server 6.40 installation or upgrade.

3.5.3 Upgrade Sequence

For information about the required component versions and patch levels, see the Software Component Matrix [page 15] and the SAP Service Marketplace at **`service.sap.com/sp-stacks`**.

For information on where to find the referenced documentation, see section Documentation [page 49].

Rows that contain optional components are highlighted in gray.

The SAP Mobile Development Kit (MDK) is now part of the SAP NetWeaver Development Environment.

No.	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install or upgrade to **SAP GUI** 6.20 on every host from which you want to connect to the SAP Web AS using an SAP GUI. [*SAP Front End Installation Guide* (available in English and German)]	
2	Upgrade SAP MI Client Component and SAP MI Server Component [*Upgrade Guide - SAP Mobile Infrastructure 2.5*]	The upgrade is possible from SAP Mobile Engine 1.0, 2.0, and 2.1. The upgrade requires an SAP Web Application Server 6.40 upgrade or installation.

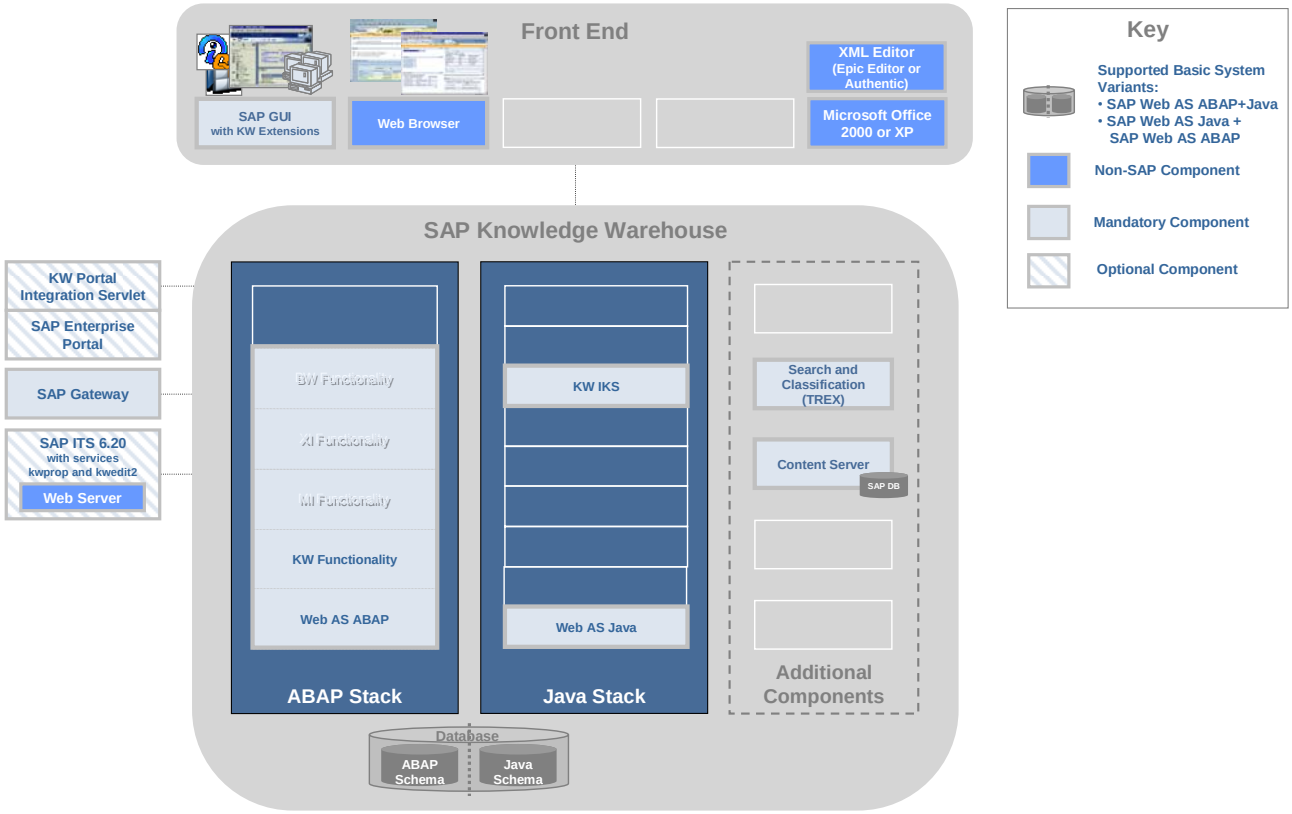
3.6 SAP Knowledge Warehouse

SAP Knowledge Warehouse (SAP KW) can be used for the following purposes:

- Documentation (DOC)
- Training (TRAIN)
- Quality Management Manuals (QMM)

3.6.1 Technical System Landscape

The following figure shows the technical system landscape of SAP KW:



The SAP Gateway is required if you use Search and Classification (TREX) within your scenario.

It is also required if you run the SAP Content Server on a separate host. In this case, SAP Gateway is used for the import of content updates and for the creation of your own transports.

If you do not use Search and Classification (TREX) and have installed SAP Content Server on the SAP Web AS host, you do not need to install SAP Gateway.

For more information about the system landscape and components, see the documentation *Master Guide SAP NetWeaver ´04.*

3.6.2 Preparations

Use

Perform the following preparations before you start the upgrade of your SAP Knowledge Warehouse system.

Backing Up the SAP System and the SAP Content Server

Before you start the upgrade, create a backup of the SAP system (SAP Basis 4.6D or SAP Web AS 6.20) and of all SAP Content Servers. The SAP system and the SAP Content Servers must be in a consistent state when you perform the backup. We recommend that you create the backup after you have made the last changes to your production data. Otherwise, data could be lost if problems occur during the upgrade.

Saving the File contentserver.ini

Create a copy of the file `contentserver.ini`. This file contains information about the repositories stored in the SAP DB. You can find it in the home directory of the SAP Content Server website. Save the copy of the file in a different directory from the original.

Saving Modified Files of SAP Knowledge Provider Web Server and SAP Internet Transaction Server (SAP ITS)

If you have made changes to SAP Knowledge Provider Web server files (for example, if you have changed the banner or the frameset to tailor the SAP Knowledge Warehouse to your company layout) or SAP Internet Transaction Server files, save these in a different directory. Otherwise they will be deleted when you uninstall the SAP Knowledge Provider Web server or SAP ITS.

Deleting Index Categories

1. If you are using TREX 2000 or TREX 5.0, delete the index categories as described in **SAP Note 351034**. Once you have run report RSTIRDX_CONISISTENCY, do not perform any further index actions (do not run reports RSTIRIDX_REINDEX or RSTIRIDX).
2. Deschedule job RSTIRIDX.

3.6.1.3 Upgrade Sequence

The following table tells you sequence in which you have to perform the upgrade or installation steps. Rows that contain optional components are highlighted in gray.

For information about the required component versions and patch levels, see the Software Component Matrix [page 15] and the SAP Service Marketplace at **`service.sap.com/sp-stacks`**.

For information on where to find the referenced documentation, see section Documentation [page 49].

Step	Action	Remarks
1	Upgrade the SAP Basis or SAP Web Application Server. [*Component Upgrade Guide – SAP Web Application Server 6.40: <Operating System>*]	You may also have to upgrade the database of the SAP Basis system or SAP Web AS.
2	Install SAP J2EE Engine 6.40 [*Installation Guide – SAP Web Application Server Jave on <Platform>: <Database>*]	
3	Upgrade the SAP DB. [**SAP Note 528433**: *SAP DB Release Upgrade to 7.3.00 Build 024, 027 and 028*] [**SAP Note 423883**: *Recognized errors during SAP DB migrations to 7.3.0*]	If the SAP DB and the SAP system are installed on separate servers, you can perform both upgrades in parallel. If you are using a cache server, perform the same upgrade steps to upgrade the SAP DB of the cache server.
4	Uninstall SAP Gateway 4.6D or 6.20.	
5	Uninstall the old TREX version: Starting from **TREX 2000** combined with **Verity 1.2.2** (used with KW 5.2): 1. To uninstall the components Verity 1.2.2 and TREX 2000, choose *Start* → *Settings* → *Control Panel* → *Add/Remove Programs* → *Verity Search Module for SAP* and *Text Retrieval & Information Extraction*. 2. Delete the directories that contained the index categories and the used programs. 3. Restart the server. Starting from **TREX 5.0**: Uninstall TREX 5.0 as described in the Installation Guide. Starting from **TREX 6.0**:	

	See documentation *Migration from TREX 6.0 SP1 to TREX 6.1*.	
6	Uninstall the old version of the SAP Knowledge Provider Web Server. [*Installation Guide KW 5.2/6.0*]	
7	Uninstall the PAW Communication Server that you used with KW 5.2 or KW 6.0 1. Close the PAW services PAW Communication Server and PAW Servlet Engine. 2. Choose *Start* → *Settings* → *Control Panel* → *Add/Remove Programs* → *PAW Java Components*. 3. Delete the services as described in the installation guide for the PAW version installed on your server with KW 5.2/6.0. [*Performance Assessment Workbench – Communication Server, PAW Proctor; PAW Player – Installation, Version <nn>*]	
8	Uninstall the old version of the SAP Internet Transaction Server. To uninstall an ITS instance that is only used for your KW system, proceed as follows: 1. Start the Microsoft Management Console. 2. Close the ITS website. 3. Choose *Save* and close the Microsoft Management Console. 4. Choose *Start* → *Settings* → *Control Panel* → *Add/Remove Programs* → *Internet Transaction Server*.	If you have installed **multiple** ITS instances on one server, read the *SAP ITS Administration Guide* for information about how to uninstall an ITS instance.
9	Install SAP J2EE Internet Knowledge Servlet. [*Installation Guide – SAP Knowledge Warehouse*]	
10	Upgrade the SAP Content Server and Cache Server (if used). [*Installation Guide SAP Content Server 6.30*] [*Installation Guide SAP Knowledge Warehouse 7.0*]	a. Copy the entries of the `contentserver.ini` file: Copy the repository entries from the `contentserver.ini` file that you saved before the upgrade. Insert these entries under *Details* in the new `contentserver.ini` file right below the *AdminSecurity* entry. b. Check that the ODBC

		driver of the SAP Content Server has been correctly installed and registered: i. Choose *Start* → *Programs* → *Administrative Tools* → *Data Sources* (ODBC). ii. Search for the LiveCache driver. If you cannot find this driver, follow the steps in **SAP Note 301352**. iii. Check again whether the driver has been registered. *iv.* If it has not been registered, see **SAP Note 182016** for information about how to install the ODBC driver for the SAP Content Server.
11	Install SAP Gateway 6.40. [*Installation Guide – SAP Web Application Server ABAP on <Platform>: <Database>*]	Choose **GWS** for the SID and **47** for the instance number. If you do not use Search and Classification (TREX) and have installed the SAP Content server on the SAP Web AS host, you do not need to install the SAP Gateway.
12	Install Search and Classification (TREX) 6.1 Use the following installation parameters for the Search and Classification (TREX) installation (for more information, see the documentation *Installation Guide Search and Classification (TREX)*): o Perform the installation steps to set up an RFC connection. o Automatic language recognition is not required. You can adopt the default settings for document	If you have upgraded from TREX 2000 or TREX 5.0: Create an initial index and schedule job RSTIRIDX as described in the documentation *Configuration Guide – SAP Knowledge Warehouse 7.0* and **SAP Note 351034**.

	languages during the installation of Search and Classification (TREX). o No Python extensions are required. o After the installation of Search and Classification (TREX), you have to create a search server relation as described in the *Installation Guide – Search and Classification (TREX)*. [*Installation Guide – Search and Classification (TREX)*]	
13	Uninstall SAP GUI 4.6D [*SAP Front End Installation Guide]*	If you have installed SAP GUI 6.20, you can continue to use this release, since SAP Web Application Server 6.40 supports SAP GUI 6.20 (requires a specific patch level).
14	Install SAP GUI 6.40 including the Knowledge Warehouse add-on. *[SAP Front End Installation Guide*] *[SAP Knowledge Warehouse Installation Guide 7.0*]	If you want to use Microsoft Office 2000 or Microsoft Office XP as the editing tool, register the dynamic link library **`htmltidy.dll`** on each SAP GUI client. [*Configuration Guide – SAP Knowledge Warehouse 7.0]* [SAP Note 517439]
15	Install SAP Enterprise Portal 6.0 including Content Management. [*Installing the Enterprise Portal 6.0 Portal Platform, Content Management, and Collaboration]*	
16	Uninstall the old version of the portal integration servlet from the connected Enterprise Portal Knowledge Management Platform and install the portal integration servlet 2.00. *[SAP Knowledge Warehouse Installation Guide 7.0*]	
17	Install the SAP Internet Transaction Server 6.20. *[SAP@Web Installation Guide]*	In all other cases, we recommend that you install SAP ITS to display properties from a Web browser. During the installation, choose the `Webgui` packet only. Import the services `kwprop` and `kwedit2`. For more information, see **SAP Note 659713**.

18	Uninstall Arbortext Epic Editor including SAP Course Application. To uninstall the applications, choose *Start* → *Settings* → *Control Panel* → *Add/Remove Programs*.	
19	Install **at least one** of the following required **editing tools**: • **Microsoft Office 2000** or **Microsoft Office XP**. [See the Microsoft documentation] • XML editors supported by SAP KW: o **Epic Editor 4.3.1** from Arbortext, Inc. (for more information, see `www.arbortext.com`) with SAP Course Application o **Authentic 2004** from Altova. This editor can be downloaded from `www.altova.com/download_authentic.html`.	

3.6.1.4 Configuration

For information about the configuration of the SAP Knowledge Warehouse scenarios, see the documentation *Configuration Guide – SAP Knowledge Warehouse- Business Scenarios* and **SAP Note 630591.**

4 References

4.1 Documentation

The following table lists the documentation that is mentioned in this Upgrade Master Guide.

Title	Location
Guide for Installation of SAP NetWeaver	
Master Guide SAP NetWeaver ´04	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Fundamentals*
Guides for SAP BW	
Component Upgrade Guide SAP – Business Information Warehouse 3.5: <Operating System>	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Upgrade*
Installation Guide – IGS Internet Graphics Service 6.40	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Upgrade*
SAP Front End Installation Guide 6.20	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*
Installation Guide - SAP Business Information Warehouse	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*
Installation Guide – SAP Web Application Server Java on <Platform>: <Database>	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*
Installation Guide Search and Classification (TREX) 6.1	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*
Migration from TREX 6.0 SP1 to 6.1	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Upgrade*
Guides for SAP EP	
Migrating from SAP EP 5.0 to SAP NetWeaver ´04 SR1	See SAP Service Marketplace at **`service.sap.com/nwhowtoguides`** → *Portal, KM and Collaboration* → *All*
Migrating from SAP EP 6.0 SP02 to SAP NetWeaver ´04 SR1	See SAP Service Marketplace at **`service.sap.com/nwhowtoguides`** → *Portal, KM and Collaboration* → *All*
Guides for SAP XI	
Component Installation Guide – SAP Exchange Infrastructure	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*

Component Upgrade Guide – SAP Exchange Infrastructure	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Upgrade*
Guides for SAP Web AS	
Component Upgrade Guide – SAP Web Application Server 6.40: <Operating System>	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Upgrade*
Component Installation Guide – SAP Web Application Server Java on <Platform>: <Database	See guides for SAP BW above.
SAP Web Application Server Support Package Guide 630SP2 to 640SP4	See SAP Service Marketplace at **`service.sap.com/instguides`** → *SAP Components* → *SAP Web Application Server* → *Release 6.30*
Support Package Stack Guide – SAP NetWeaver ´04: Stack <xx>	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Operations*
SAP Front End Installation Guide 6.20	See guides for SAP BW above.
Installation Guide SAP NetWeaver Developer Studio	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*
Support Package Stack Guide – SAP NetWeaver ´04: Stack <xx>	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Operations*
Installation Guide: SAP Web Application Server 6.20 on <operating system>: <database>	See SAP Service Marketplace at **`service.sap.com/instguides`** → *SAP Web Application Server* → *<Release>*
Guides for SAP MI	
Upgrade Guide - SAP Mobile Infrastructure 2.5	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Upgrade*
SAP Front End Installation Guide 6.20	See guides for SAP BW above.
Guides for SAP KW	
Component Upgrade Guide SAP Web Application Server 6.40: <Operating System>	See *Guides for SAP Web AS* above
Installation Guide KW 5.2/6.0	See SAP Service Marketplace at **`service.sap.com/instguides`** → *SAP Knowledge Warehouse* → *<Release>*
Installation Guide SAP Knowledge Warehouse 7.0	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*
Installation Guide: SAP Content Server 6.30	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*
Installation Guide – SAP Web Application	See SAP Service Marketplace at

Server Java on <Platform>: <Database>	**`service.sap.com/instguidesNW04`** → *Installation*
Installation Guide – SAP Web Application Server ABAP on <Platform>: <Database>	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*
SAP Front End Installation Guide 6.40	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*
SAP@Web Installation Guide	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*
SAP Internet Transaction Server 6.20 Administration Guide	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*
Installation Guide Search and Classification (TREX) 6.1	See guides for SAP BW above.
Migration from TREX 6.0 SP1 to TREX 6.1	See guides for SAP BW above.
Installing the SAP Enterprise Portal Platform, Content Management, and Collaboration	See SAP Service Marketplace at **`service.sap.com/instguidesNW04`** → *Installation*
Configuration Guide – SAP Knowledge Warehouse Business Scenarios	SAP Service Marketplace at **`service.sap.com/ibc`**

4.2 SAP Notes

The following table lists all SAP Notes mentioned in this documentation.

SAP Note Number	Title
685000	*Upgrade Master Guide SAP NetWeaver ´04*
707730	*Release Restrictions of SAP NetWeaver '04*
181255	*Overview: SAP Notes on the R/3 Add-Ons PI and PI-A*
597635	*R/3 plug in: PI 2003.1 installation/delta upgrade*
634214	*Installation and upgrade to BI_CONT 3.51*
732461	*Migration of EP & KM from 5.0 to NW '04*
732458	*Migration Enterprise Portal 6.0 SP2 to NW '04*
766765	*Central Note – SAP EP 6.0 on Web AS 6.40 Release NW '04 SR1*
666646	*Upgrade to SAP KW 7.0 (known errors)*
666649	*SAP KW 7.0: Supported Versions of Components*
630591	*SAP KW 7.0: Configuration of Scenarios*
670108	*SAP KW 7.0: Security Overview*

528433	*SAP DB Release Upgrade to 7.3.00 Build 024, 027 and 028*
423883	*Recognized errors during SAP DB migrations to 7.3.0*
351034	*TREX action for KW 5.1 / 5.2 / 6.0/7.0*
301352	*ODBC driver is not registered*
182016	*Installation of a SAP DB ODBC driver*
659713	*KW 7.0: ITS Services KWEDIT2 and KWPROP*
517439	*Download of HTMLTIDY*