



Administrator's Guide SAP Enhancement Package 6 for SAP ERP 6.0, Version for SAP HANA (SP02)

Based on SAP NetWeaver Application Server ABAP 7.4

Target Audience

- Technical Consultants
- System Administrators
- Project Leads

CUSTOMER

Document version: 1.5 – 2013-07-26

Document History



CAUTION

You can find the most current version of this document on SAP Service Marketplace at <http://service.sap.com/erp-ehp6hana-inst>.

We strongly recommend that you use the document available there. The guide will be updated according to updates of the software.

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

Version	Date	Description
1.0	2012-12-07	Initial version
1.1	2012-12-13	Additions made to the following sections: <i>Getting Started</i> , <i>Installation Process: Overview</i> , <i>Update and Migration Process: Overview</i> , <i>Security Information</i> , and <i>Operations Information</i> .
1.2	2012-12-18	Several changes made to section <i>Installation Process: Overview</i> .
1.3	2013-02-04	<ul style="list-style-type: none"> ■ SAP Note 1794297 added to “Important SAP Notes”. ■ Paragraph added to first note in the section “Technical System Landscape”. ■ Changes made to step 3 and 4.2 in the section “Update and Migration Process: Overview”. ■ First bullet point of step 2 changed in the section “Installation Process: Overview”.
1.4	2013-02-21	<ul style="list-style-type: none"> ■ SAP Notes updated ■ Link to Technical Operations Manual (TOM) added in “Related Information” subsection of “Getting Started” section
1.5	2013-05-10	<ul style="list-style-type: none"> ■ SAP Notes updated ■ Section “Installation Process: Overview”: <ul style="list-style-type: none"> ● Kernel information in step 2 updated ● Steps for HANA content activation added ■ Section “Update and Migration Process: Overview”: <ul style="list-style-type: none"> ● Note in step 1 updated ● Steps for HANA content activation added

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1 SAP Enhancement Package 6 for SAP ERP 6.0, Version for SAP HANA

With SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA, SAP is enabling the existing functions of SAP ERP for SAP HANA to utilize the in-memory technology and enable better-performing business applications. Thereby, business applications can also manage large data volumes significantly faster. SAP HANA comprises the required hardware as well as the SAP HANA appliance software (SAP HANA database and data replication tools, for example).



NOTE

SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA is technically very similar to an enhancement package. However, it is not part of the release sequence of EHPs of SAP ERP. It is an optional intermediate step for early adopters on their way to SAP HANA.

Note that some industry solutions, add-ons, or functions will not be supported with SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA, because this release is a product outside of the release sequence of SAP ERP. If your company implements this release, a separate agreement that sets forth the specific restrictions and deviation from the SAP license and maintenance agreement needs to be signed. For more information, see SAP Note [1768031](#).

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2 Getting Started

About This Document

This document is a single source of information for the implementation of SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA, which is based on SAP NetWeaver Application Server ABAP 7.4.



NOTE

This document is based on the Implementation Guides for SAP enhancement package 6 for SAP ERP 6.0 (see section *Related Guides* below) and contains all delta information on implementation, as well as security and operation information.

It is divided into the following main sections:

- Introduction with references to related documents and relevant SAP Notes
- Technical System Landscape
- Update Information
- Installation Information
- Security Information
- Operations Information



NOTE

For the most recent version of this document, see SAP Service Marketplace at <http://service.sap.com/erp-ehp6hana-inst>.

We strongly recommend that you use the document available there. The guide will be updated according to updates of the software.

Related Information

For more information about implementation topics not covered in this guide, see the following content on SAP Service Marketplace:

Content	Location on SAP Service Marketplace
Latest versions of Installation and Upgrade Guides	http://service.sap.com/instguides
Sizing, calculation of hardware requirements—such as CPU, disk and memory resource—with the Quick Sizer tool	http://service.sap.com/sizing http://service.sap.com/quicksizer
Released platforms and technology-related topics such	http://service.sap.com/platforms

Content	Location on SAP Service Marketplace
as maintenance strategies and language support	To access the Platform Availability Matrix directly, enter http://service.sap.com/pam
Network Security	http://service.sap.com/security http://service.sap.com/securityguide
High Availability	http://www.sdn.sap.com/irj/sdn/ha
Performance	http://service.sap.com/performance
Information about Support Package Stacks, latest software versions and patch level requirements	http://service.sap.com/sp-stacks
Information about Unicode technology	http://service.sap.com/unicode http://www.sdn.sap.com/irj/sdn/i18n
Information on SAP HANA	http://service.sap.com/hana http://help.sap.com/hana_appliance
Technical Operations Manual (TOM)	http://help.sap.com/hana_appliance

Further Useful Links

The following table lists further useful links on SAP Service Marketplace:

Content	Location on SAP Service Marketplace
Information on creating error messages	http://service.sap.com/messages
SAP Notes search	http://service.sap.com/notes
SAP Software Distribution Center (software download and ordering of software)	http://service.sap.com/swdc
SAP Online Knowledge Products (OKPs) — role-specific learning maps	http://service.sap.com/rkt
Additional information on SAP HANA	http://www.saphana.com/

Related Guides

The following documents contain more information about the relevant applications:

Guide	Location
Guides for <i>SAP HANA Appliance Software</i>	http://help.sap.com/hana_appliance
SAP HANA Master Guide	http://help.sap.com/hana_appliance
Master Guide for SAP Enhancement Package 6 for SAP ERP 6.0	▶ http://service.sap.com/erp-ehp6-inst ◀
Software Update Manager	▶ http://service.sap.com/sltoolset → <i>Software Logistics Toolset 1.0</i> → <i>SUM</i> ◀
System Copy Guide	▶ http://service.sap.com/sltoolset → <i>Software Logistics Toolset 1.0</i> → <i>Software Provisioning Manager</i> ◀ Choose <i>Copy. Syst. bsd. on NW 7.3 or Higher Using SW Prov. Mgr.</i>
Dual-Stack Split Guide	▶ http://service.sap.com/sltoolset → <i>Software Logistics Toolset 1.0</i> → <i>Dual-Stack Split</i> ◀

Guide	Location
Software Provisioning Manager	► http://service.sap.com/sltoolset → Software Logistics Toolset 1.0 → Software Provisioning Manager ◀ Choose Inst. Syst. bsd. on NW 7.3 or Higher Using SW Prov. Mgr.

Important SAP Notes

You must read the following SAP Notes before you start the implementation. These SAP Notes contain the most recent information on the implementation, as well as corrections to the installation documentation.

Make sure that you have the up-to-date version of each SAP Note, which you can find on SAP Service Marketplace at <http://service.sap.com/notes>.

SAP Note Number	Title	Description
1514967	SAP HANA: Central Note	Central SAP Note for SAP In-Memory Appliance (SAP HANA).
1514966	SAP HANA 1.0: Sizing SAP In-Memory Database	Contains information about sizing for the SAP In-Memory Database (SAP HANA).
1681092	Multiple SAP HANA databases on one appliance	Contains support information and special considerations for multiple SAPHANA databases on a single SAP HANA appliance.
855534	Dual Stack and SAP Business Suite 7	Contains information about the implementation of a Dual Stack with SAP Business Suite 7.
1655335	Use Cases for Splitting Dual-Stack Systems	Contains a recommendation for splitting SAP dual-stack systems based on SAP NetWeaver 7.0 (incl. EHP1, EHP2, EHP3) using the Dual-Stack Split tool.
1686144	Dual-Stack Split 2.0 SP2 for Systems Based on SAP NetWeaver	Contains all information relevant for a Dual-Stack Split for systems based on SAP NetWeaver.
1761546	SAP ERP powered by SAP HANA—Optimizations	Contains information about optimizations developed for SAP EHP 6 for SAP ERP 6.0, version for SAP HANA.
1835008	Database Performance Optimizations for SAP ERP	Contains information about the database-specific performance optimizations for SAP ERP, including possible limitations or additional requirements for databases other than SAP HANA.
1768031	SAP EHP 6 for SAP ERP 6.0, version for SAP HANA	Contains all released and non-released ERP functions.

SAP Note Number	Title	Description
1730095	Release Information Note	Provides information and references to SAP Notes for applying Support Package (SP) Stacks of ERP on HANA.
774615	Support Package levels of ERP/ECC installations/upgrades	Provides information about the ABAP Support Package levels and kernel patch levels for specific installations and release upgrades.
1760306	SAP EHP6 for SAP ERP 6.0, version for SAP HANA: Add-ons	Informs you about what you need to consider when you plan to run SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA together with an add-on in the same system.
1762766	EHP6 for SAP ERP 6.0, version for SAP HANA: Required SWC	Provides information about the relation between business functions and the technical usage for the current enhancement package.
1785057	Recommendations for migrating suite systems to SAP HANA	Contains recommendations for migrating suite systems to SAP HANA.
1051576	Conversion of Single Code Page Systems to Unicode	Provides information about converting a non-Unicode SAP system to Unicode.
1784475	Solution Manager Content for SAP NetWeaver AS ABAP 7.4	Contains information about the documentation of the technical configuration of SAP NetWeaver Application Server ABAP 7.4.
1309506	SPAM/SAINT with parallel R3trans	Provides information about applying add-ons and Support Packages.
1787166	Collective note for pool/cluster related adaptations	Contains information about the conversion of pool and cluster tables to transparent tables during the data base migration to HANA.
1766985	AS ABAP 7.4 for Suite on HANA: Complementary Components	Contains information about complementary components to AS ABAP 7.4.
1789632	EHP6 for SAP ERP 6.0 on HANA — HANA Content Activation	Contains information about content that must be activated manually.
912369	FINB_TR_DEST, after import failures, transport errors	Contains information about customizing RFC destinations to avoid errors when using the FINBASIS software.

SAP Note Number	Title	Description
1793153	Usage of cProjects / cFolders and Workforce Mgmt on HANA	Contains information about applying add-ons and updating or migrating to SAP HANA.
1794297	Secondary Indexes for the business suite on HANA	Contains information about when using secondary indexes is beneficial.
1798895	Additional information for manual ABAP-on-HANA correction process	Contains additional information for manual ABAP-on-HANA corrections.

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3 Technical System Landscape



NOTE

SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA does not contain any Java components. On the Java server, use the Java component version of SAP enhancement package 6 for SAP ERP 6.0.

Update or Upgrade with a Dual-Stack System

If you are currently using a dual stack to run SAP ERP, note that SAP HANA does not support the Java stack. Therefore, after updating or upgrading your system to SAP enhancement package 6 for SAP ERP 6.0, it is essential to complete a dual-stack split before migrating to SAP HANA.

For more information, see SAP Notes [855534](#) and [1686144](#).

Installation

Since SAP HANA does not support the Java stack, you install the Java server on separate hardware that runs SAP enhancement package 6 for SAP ERP 6.0, and install the ABAP server on hardware that runs SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA.

If you do not require the Java server, you do not need to install it.

SAP HANA runs natively on Unicode only. If your system is not yet running on Unicode, consider performing the conversion separately before migrating to SAP HANA. From a technical perspective, the Unicode conversion could be performed during the database migration (that is, during the heterogeneous system copy), but preparatory steps are required as described in SAP Note [1051576](#).

The following figure shows the target landscape after a new installation of an ABAP and Java server or after an update or upgrade. In case of an update or upgrade, the dual-stack system has been split and migrated to SAP HANA. The ABAP stack has been migrated to SAP HANA, whereas the Java stack remains on its original hardware since it is not supported by SAP HANA. In both cases, the ABAP and Java servers run on separate hardware, with the ABAP stack deployed on SAP HANA and the Java stack on another database.

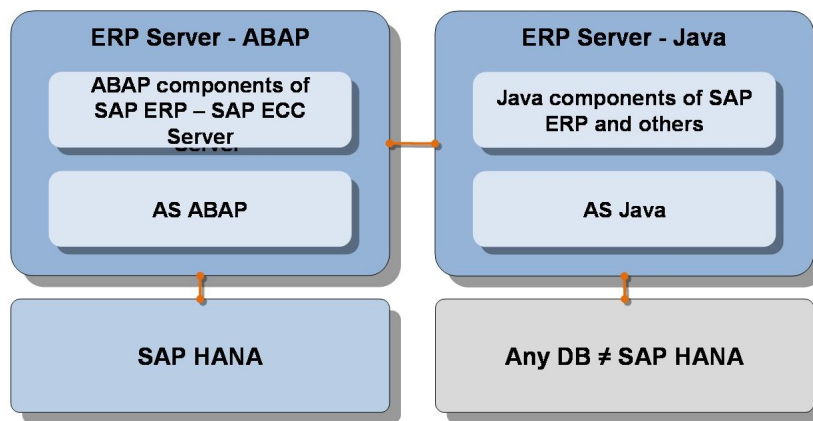


Figure 1: Target Landscape

Software Instances of SAP Enhancement Package 6 for SAP ERP 6.0, Version for SAP HANA



CAUTION

Check SAP Note [1768031](#) if the functions that you are planning to implement are released for use in SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA.

The following instances are part of SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA:

- Catch Weight Management
- Central Applications
- Defense
- Defense & Public Security
- Discrete Ind. & Mill Products
- EAM config control
- ERecruiting
- Financial Services
- Financial Supply Chain Mgmt
- Global Trade
- Hospital
- Human Capital Management
- Insurance
- Learning Solution
- Kayak Successor
- Leasing/Contract A/R & A/P
- Master Data Governance
- Media
- Oil & Gas
- Oil & Gas with Utilities
- PLM Core

- Public Sector Accounting
- Retail
- SAP ECC Server VPack successor
- SAP ESA ECC-SE
- Strategic Enterprise Mgmt
- Utilities/Waste&Recycl./Telco
- XI/ESR Content

Technical Usage of SAP Enhancement Package 6 for SAP ERP 6.0, Version for SAP HANA



CAUTION

Check SAP Note [1768031](#) if the functions that you are planning to implement are released for use in SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA.

The following table shows which technical usages and assigned product instances are available with *SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA*:

Technical Usage	Product Instance
Catch Weight Management	Catch Weight Management
Central Applications	Central Applications
Defense	Defense
Defense Forces & Public Sec.	Defense & Public Security
Discrete Ind. & Mill Products	Discrete Ind. & Mill Products
EAM config control	EAM config control
ERecruiting on ECC Server	ERecruiting
ESA ECC-SE	SAP ESA ECC-SE
Financials	Leasing/Contract A/R & A/P
Financial Services	Financial Services
Financial Supply Chain Mgmt	Financial Supply Chain Mgmt
Global Trade	Global Trade
Hospital	Hospital
Human Capital Management	Human Capital Management
Insurance	Insurance
Master Data Governance	Master Data Governance
Media	Media
Oil & Gas	Oil & Gas
Oil & Gas with Utilities	Oil & Gas with Utilities
PLM Core	PLM Core
Public Sector Accounting	Public Sector Accounting
Retail	Retail
SAP ECC Server VPack successor	SAP ECC Server VPack successor
SAP Learning Sol ABAP only	Learning Solution
Strategic Enterprise Mgmt	Strategic Enterprise Mgmt

Technical Usage	Product Instance
Utilities/Waste&Recycl./Telco	Utilities/Waste&Recycl./Telco
XI/ESR Content	XI/ESR Content

**NOTE**

You can also use transaction SAINT to manually install technical usages. Make sure that you import the most recent SPAM/SAINT update before using transaction SAINT to install additional usages. You also need to generate a stack configuration file, using the SAP Solution Manager Maintenance Optimizer. If you want to use the parallel import feature of R3trans, follow the instructions in SAP Note [1309506](#).

Implementation Considerations

It is possible to run SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA on a non-SAP-HANA database. However, note that with this deployment option, you might not be able to make use of all available optimizations. Therefore, we strongly recommend that you use a SAP HANA database. SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA currently targets the server installations of ECC Server for ERP only. Consequently, you will not be able to update the following servers to SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA software stack:

- ECC Server that comprises the SRM One Client section
- SAP SEM as a pure SAP NetWeaver add-on
- SAP E-Recruiting as a pure SAP NetWeaver add-on
- SAP Learning Solution as a pure SAP NetWeaver add-on

For a complete list of all technical usages available with SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA, see the “Technical Usages” section above.

SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA, does not contain any SAP Solution Manager implementation content. If you want to implement a new process or scenario using SAP Solution Manager implementation content, you can do so before implementing SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA.

4 Update Information

This section of the *Administrator's Guide* provides an overview of the update and upgrade process steps required to enable SAP enhancement package 6 for SAP ERP 6.0 to run on SAP HANA. It also provides references to the documentation required for the process steps.

The following table contains definitions of the most important terms used in this section:

Term	Definition
<i>Update</i>	Installation of an enhancement package on an existing SAP system.
<i>Upgrade</i>	Upgrade to an SAP system including an enhancement package.
<i>SAP enhancement package 6 for SAP ERP 6.0</i>	Refers to the enhancement package that does not run on SAP HANA, but is a prerequisite for the update to the enhancement package that does (see the entry below).
<i>SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA</i>	Refers to the SAP HANA-enabled enhancement package that does run on SAP HANA.

4.1 Update and Migration Process: Overview

The update process consists of the steps listed below, some of which may be optional, depending on your start release.



NOTE

Before performing the steps described below, consider making a homogeneous system copy to preserve your current status, so that you have a reference or fallback system in place. You can do the system copy before any of the steps below, depending on your requirements and scheduling.

- For more information about copying systems based on SAP NetWeaver 7.3 (or higher), see the documentation at ► <http://service.sap.com/sltoolset> → *Software Logistics Toolset 1.0* → *Software Provisioning Manager 1.0* ◀.
- For more information about copying systems based on SAP NetWeaver releases lower than 7.3, see the SAP NetWeaver Installation Guides at ► <http://service.sap.com/instguides> → *Installation & Upgrade Guides* → *SAP NetWeaver* ◀.

1. Dual-Stack Split

Since only ABAP components are enabled for SAP HANA, you cannot deploy a dual-stack system (with both ABAP and Java components running the same system). If your SAP enhancement package 6 for SAP ERP 6.0 is currently implemented as a dual-stack system, you need to perform a split.

4.1 Update and Migration Process: Overview

For information on how to perform a dual-stack split, see the following:

- SAP Note [1686144](#)
- Tool guides at ► <http://service.sap.com/sltoolset> → *Software Logistics Toolset 1.0* → *Dual-Stack Split* ◀

2. Update to SAP Enhancement Package 6 for SAP ERP 6.0, Version for SAP HANA

The update process from SAP enhancement package 6 for SAP ERP 6.0 to SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA (ABAP components only) is similar to the update process from earlier releases of SAP ERP to SAP enhancement package 6 for SAP ERP 6.0. You therefore use the existing *Upgrade and Update Guide for SAP ERP 6.0 Including Enhancement Package 6* together with this guide, which describes the differences in the process. You also need the *Software Update Manager* guide.

For the available technical usages, see the section *Technical Usages of SAP Enhancement Package 6 for SAP ERP 6.0, Version for SAP HANA* in this guide.

The following table lists the guides you need to use and where to find them:

Guide Name	Use	Location
<i>Upgrade and Update Guide for SAP ERP 6.0 Including Enhancement Package 6</i>	Explains the application-specific steps needed to perform the update.	► http://service.sap.com/erp-ehp6-inst ◀
<i>Administrator's Guide for SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA</i>	Describes the differences (deltas) to the SAP enhancement package 6 for SAP ERP 6.0 process, not covered in the guide above. Also lists the relevant sections from the guide above (see <i>Update Checklist</i> [external document]).	► http://service.sap.com/erp-ehp6hana-inst ◀
<i>Update of SAP Systems Using Software Update Manager</i>	Describes the tool-specific steps needed to perform the update.	► http://service.sap.com/sltoolset → <i>Software Logistics Toolset 1.0</i> → <i>SUM</i> ◀

3. Database Migration

**NOTE**

Before performing these substeps, check the release information in SAP Note [1730095](#).

This step consists of the following substeps:

1. Install SAP HANA

The SAP HANA appliance software can only be installed by certified hardware partners on validated hardware running a specific operating system.

For more information, see the following:

- ► <http://help.sap.com/hana> → *SAP HANA Appliance* → *System Administration and Maintenance Information* → *SAP HANA Technical Operations Manual (TOM)* ◀.
- SAP Note [1514967](#)

2. Heterogeneous System Copy

To migrate your source database to the SAP HANA database, you perform a heterogeneous system copy. The guide referenced in the information below describes how to make a system copy.

**NOTE**

When planning your database migration, consider the following points:

- The database migration to SAP HANA requires some preparatory steps related to the database tables in your system. For example, you need to check the usage of cluster tables and pool tables since they are automatically resolved to transparent tables during the database migration.
 - For more information about migration preparation, available check reports, potential additional efforts, and the system copy process in general, see the system copy guides at ► <http://service.sap.com/sltoolset> → *Software Logistics Toolset 1.0* → *Software Provisioning Manager 1.0* ◀.
 - For migration preparation, see also SAP Note [1785057](#).
- SAP HANA runs natively on Unicode only. If your system does not run on Unicode, consider performing the conversion separately before migrating to SAP HANA. From a technical perspective, the Unicode conversion could be performed during the database migration (that is, during the heterogeneous system copy), but preparatory steps are required as described in SAP Note [1051576](#).

**NOTE**

For information about migration scenarios for SAP HANA to other databases, see SAP Note [1718576](#)

3. Apply SAP Note [1787166](#).

4. Content Activation**NOTE**

SAP HANA content such as *Stored Procedures* or *Calculation Views* is activated automatically during the update or upgrade process in a HANA database. Depending on your installed ECC Server system version, you might need to check or perform certain manual steps.

The figure below illustrates the activation scenarios for SAP HANA content depending on upgrade paths and migration scenarios:

Different HANA Content Activation Scenarios

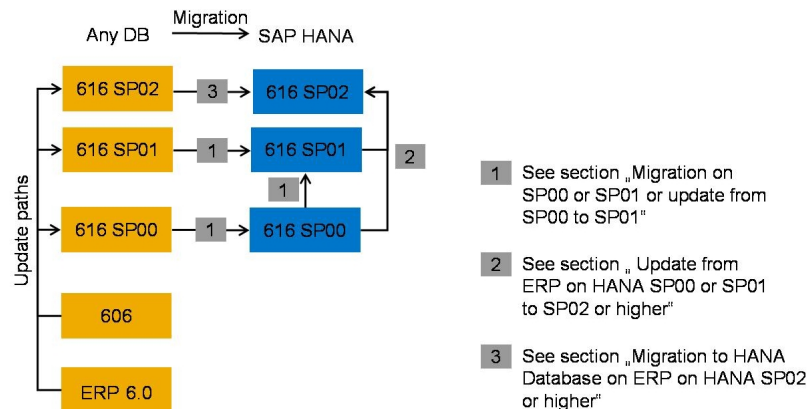


Figure 2: Different HANA Content Activation Sequence

Migration to SP00 or SP01 or Update from SP00 to SP01

If you have updated to ERP on HANA SP00 or SP01 and migrated the system to the HANA database, activate HANA content according to SAP Note [1789632](#).

Update from ERP on HANA SP00 or SP01 to SP02 or Higher

Perform step 3, *Content Activation*, as described in the section *Installation Process: Overview* [[page 23](#)].

Migration to HANA Database on ERP on HANA SP02 or Higher

If you have migrated your system to the HANA Database (ERP on HANA SP02 or higher), you have the following two options:

- If you use SWPM SP03, your HANA Content will be activated automatically.
- If you use an older version of SWPM for the migration procedure, you need to perform the following steps in the HANA studio:
 1. Check whether the necessary Application Function Libraries (AFLs) are installed on your HANA database. If necessary, install the AFLs as described at <http://help.sap.com/hana> → *SAP HANA Platform* → *Installation and Upgrade Information* → *SAP HANA Update and Configuration Guide* ↩. This will enable certain *Stored Procedures* to run even more efficiently.
 2. Check user `_SYS_REPO`.

Assign the following roles and authorizations to this user (if they are not already assigned).

Required `_SYS_REPO` roles:

- `ABAP_SYS_REPO`
- `AFL__SYS_AFL_AFLBFL_EXECUTE`
- `AFL__SYS_AFL_AFLPAL_EXECUTE`
- `AFL__SYS_AFL_ERPA_EXECUTE`
- `AFL__SYS_AFL_POSDM_AREA_EXECUTE`
- `AFL__SYS_AFL_SOP_AREA_EXECUTE`

4.2 Update Checklist

- AFL__SYS_AFL_UDFCORE_AREA_EXECUTE (only required as of SAP HANA revision 53)

On the *SQL Privileges* tab, you can set the necessary authorizations as described below:

SQL Object	SQL Privileges	Grantable
GET_PROCEDURE_OBJECTS (SYS)	Execute	No
GRANT_PRIVILEGE_ON_ACTIVATED_CONTENT	Execute	No
REPOSITORY_REST (SYS)	Execute	No
SAP<SID>	All possible	Yes

3. Check user _SYS_AFL.

Assign the following roles to this user (if they are not already assigned).

Required _SYS_AFL roles:

- AFL__SYS_AFL_AFLBFL_EXECUTE
- AFL__SYS_AFL_AFLPAL_EXECUTE
- AFL__SYS_AFL_ERPA_EXECUTE
- AFL__SYS_AFL_POSDM_AREA_EXECUTE
- AFL__SYS_AFL_SOP_AREA_EXECUTE
- AFL__SYS_AFL_UDFCORE_AREA_EXECUTE

For details on how to assign roles and SQL privileges to users via HANA studio, refer to the SAP HANA Administration and Security guides.

In SAP HANA studio, activate all HANA content objects under the node `sap.erp`. The activation process is described in the SAP HANA Developer Guide ► http://help.sap.com/hana_appliance ◀:

4.2 Update Checklist

This section refers to those sections of the upgrade and update guide of SAP enhancement package 6 for SAP ERP 6.0 that are relevant for the update process of SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA. It also lists the differences (delta information) in the update process of SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA. Use the *Upgrade and Update Guide for SAP ERP 6.0 Including Enhancement Package 6* together with this checklist to perform your update.

You can find the guide at ► <http://service.sap.com/erp-ehp6-inst> ◀.

Checklist

- 1. Read the notes listed under *Important SAP Notes* in this guide.
- 2. Delta information for section 3.2 *SAP ECC: Customize RFC-Destination*:

If you are using the FINBASIS software component and want to avoid errors in phase XPRAS_AIMMRG of the update process, you must customize a special RFC-destination with a DDIC user. A DDIC user is required for this RFC-destination because only DDIC users are not locked during an upgrade or update process. We recommend that you replace the DDIC user

by a standard RFC-user after the update is complete. For more information, see SAP Note [912369](#).

5 Installation Information

This section of the *Administrator's Guide* provides an overview of the installation process steps for SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA. It also provides references to the documentation required for the process steps.

The following table contains definitions of the most important terms used in this section:

Term	Definition
<i>Installation</i>	New installation of an SAP system including an enhancement package. Note that this is distinct from an update; see definition below.
<i>Update</i>	Installation of an enhancement package on an existing SAP system.
<i>SAP enhancement package 6 for SAP ERP 6.0</i>	Refers to the enhancement package that does not run on SAP HANA.
<i>SAP enhancement package 6 for SAP ERP 6.0 version for SAP HANA</i>	Refers to the enhancement package that does run on SAP HANA.

5.1 Installation Process: Overview

The installation process consists of the following steps:

1. Install SAPHANA

The SAPHANA appliance software can only be installed by certified hardware partners on validated hardware running a specific operating system.

For more information, see ► <http://help.sap.com/hana> → *SAP HANA Appliance* → *System Administration and Maintenance Information* → *SAP HANA Technical Operations Manual (TOM)* ◄.

2. Installation of SAP Enhancement Package 6 for SAP ERP 6.0, Version for SAP HANA

Note the following information:

- SAP enhancement package 6 for SAP ERP 6.0, version for SAPHANA is based on SAP NetWeaver AS ABAP 7.4, kernel 7.38 (SP00, SP01) and kernel 7.40 (SP02).
- Only ABAP components are released for SAP HANA. For more information on the available technical usages and components, see *Technical System Landscape* [page 13], section *Technical Usages of SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA* and SAP Note [1768031](#).
- Software Provisioning Manager is used for the installation.

The following table lists the guides that you need to use for the installation and where to find them:

5.1 Installation Process: Overview

Guide Name	Use	Location
<i>Administrator's Guide for SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA, section Technical System Landscape [page 13]</i>	Contains information on system setup (including how to deploy components not released for SAP HANA, such as Java components).	Section in this guide.
<i>Software Provisioning Manager 1.0</i>	Describes the tool-specific steps needed to perform the installation. Note that the Software Provisioning Manager has replaced SAPinst as the installation tool.	▶ http://service.sap.com/s1toolset → <i>Software Logistics Toolset 1.0</i> → <i>Software Provisioning Manager 1.0</i> ◀ Choose <i>Inst. Syst. bsd on NW 7.3 or Higher Using SW Prov. Mgr.</i>
<i>Administrator's Guide for SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA, section Media List [page 31]</i>	Contains information about the relevant installation media for SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA.	Section in this guide.

In addition, the following guides may be useful:

Guide Name	Use	Location
<i>Master Guide for SAP Enhancement Package 6 for SAP ERP 6.0</i>	For a general overview of functions and processes, see the section <i>Main Implementation Processes and Related Documentation</i> . Note that this guide is for SAP enhancement package 6 for SAP ERP 6.0 – information specific to SAP enhancement package 6 for SAP ERP 6.0, version for SAP HANA is contained in the <i>Administrator's Guide</i> only.	▶ http://service.sap.com/erp-ehp6-inst ◀.
<i>Installation Guide for SAP enhancement package 6 for SAP ERP 6.0 ABAP and Java</i>	Contains the installation information for SAP enhancement package 6 for SAP ERP 6.0. Use this guide if you intend to install components not released for SAP HANA. Note that in this case you need to use the Media List for SAP enhancement package 6 for SAP ERP 6.0. It is in the same location as the Installation Guide.	▶ http://service.sap.com/erp-ehp6-inst ◀.

3. Content Activation

1. SAP System

1. Run the report RUTPOADAPT as described in SAP Note [1849890](#) to convert pooled tables to transparent tables. This enables stored procedures to access these tables as well.
2. Check whether table SNHI_DUP_PREWORK contains the following entries:
 - SAP_APPL X
 - EA-APPL X
 - ECC-DIMP X

If these entries are not available, you need to create them. Run function module SNHI_DELIVERY_UNIT_SET_PREWORK with the software components SAP_APPL, EA-APPL

and ECC-DIMP as input parameters. This will ensure that HANA content is activated automatically after further updates.

2. HANA Studio

Check whether the necessary Application Function Libraries (AFLs) are installed on your HANA database. If necessary, install the AFLs as described at ► <http://help.sap.com/hana> → SAP HANA Platform → Installation and Upgrade Information → SAP HANA Update and Configuration Guide ◀. This will enable certain *Stored Procedures* to run even more efficiently.

1. Check user _SYS_REPO.

Assign the following roles and authorizations to this user (if they are not already assigned):

ABAP_SYS_REPO

AFL__SYS_AFL_AFLBFL_EXECUTE

AFL__SYS_AFL_AFLPAL_EXECUTE

AFL__SYS_AFL_ERPA_EXECUTE

AFL__SYS_AFL_POSDM_AREA_EXECUTE

AFL__SYS_AFL_SOP_AREA_EXECUTE

AFL__SYS_AFL_UDFCORE_AREA_EXECUTE (only required as of SAP HANA revision 53)

Authorizations:

SQL Object	SQL Privileges	Grantable
GET_PROCEDURE_OBJECTS (SYS)	Execute	No
GRANT_PRIVILEGE_ON_ACTIVATED_CONTENT	Execute	No
REPOSITORY_REST (SYS)	Execute	No
SAP<SID>	All	Yes

2. Check user _SYS_AFL.

Assign the following roles to this user (if they are not already assigned):

AFL__SYS_AFL_AFLBFL_EXECUTE

AFL__SYS_AFL_AFLPAL_EXECUTE

AFL__SYS_AFL_ERPA_EXECUTE

AFL__SYS_AFL_POSDM_AREA_EXECUTE

AFL__SYS_AFL_SOP_AREA_EXECUTE

AFL__SYS_AFL_UDFCORE_AREA_EXECUTE

For details on how to assign roles and SQL privileges to users via HANA studio, refer to the SAP HANA Administration and Security guides.

3. You are now ready to update to SP02.

5.2 Installation Checklist

This checklist contains the sections in the installation guide of SAP Enhancement Package 6 for SAP ERP 6.0 relevant for the installation process of SAP enhancement package 6 for SAP ERP 6.0, version

for SAP HANA. It also mentions the differences (delta information) not covered in installation guide of SAP Enhancement Package 6 for SAP ERP 6.0. Use the *Installation Guides for SAP EHP 6 for SAP ERP 6.0* together with this checklist to perform your installation.

You can find the *Installation Guides for SAP EHP 6 for SAP ERP 6.0* at ► <http://service.sap.com/erp-ehp6-inst> ◀.

Checklist

- 1. Ensure that you have read the notes listed under *Important SAP Notes* in section *Getting Started* [page 7] in this guide.

6 Security Information

To comply with the security settings for SAP enhancement package 6 for SAP ERP, version for SAP HANA, you need to check the information provided in the Security Guide for SAP ERP for SAP enhancement package 6.

For the Netweaver 7.40 Security Guide, see SAP Help Portal at ► <http://help.sap.com/> → *SAP Business Suite* → *SAP HANA Innovations for SAP Business Suite* → *Products Powered by SAP HANA* → *SAP Enhancement Package 6 for ERP, Version for SAP HANA* → *Application Help* → *SAP Library <English>* → *SAP ERP Product Information* → *SAP NetWeaver* → *SAP NetWeaver Security Guide* ◀.

For information about SAP HANA Appliance and Database Security, see SAP Help Portal at ► http://help.sap.com/hana_appliance → *SAP In-Memory Computing* → *SAP HANA Appliance* → *Security Information* ◀.

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7 Operations Information

SAP HANA behaves like a regular database and therefore, as any other database, does not necessarily require other operating activities.

However, the following information with regard to operations topics is available:

- Solution Life Cycle Management

For information about Solution Life Cycle Management, see SAP Help Portal at ► <http://help.sap.com/> → *SAP Business Suite* → *SAP HANA Innovations for SAP Business Suite* → *Products Powered by SAP HANA* → *SAP Enhancement Package.6 for ERP, Version for SAP HANA* → *Application Help* → *SAP Library <English>* → *SAP ERP – Product Information* → *SAP NetWeaver* → *Administration Information* → *Technical Operations for SAP NetWeaver* → *Solution Life Cycle Management* ◀.

- Database Management

For information about Database Management, see ► <http://help.sap.com/> → *SAP HANA In-Memory Computing* → *SAP HANA Appliance Software* → *System Administration and Maintenance* → *SAP HANA Technical Operations Manual (TOM)* ◀.

- Tools for Monitoring, Administration and Configuration

For information about tools for monitoring, administration and configuration, see SAP Help Portal at ► <http://help.sap.com/> → *SAP Business Suite* → *SAP HANA Innovations for SAP Business Suite* → *Products Powered by SAP HANA* → *SAP Enhancement Package.6 for ERP, Version for SAP HANA* → *Application Help* → *SAP Library <English>* → *SAP ERP – Product Information* → *SAP NetWeaver* → *Administration Information* → *Technical Operations for SAP NetWeaver* → *Administration of SAP NetWeaver systems and components* → *Administration of Application Server ABAP* ◀.

You find the ERP Operations Guide for SAP Enhancement Package.6 for ERP, version for SAP HANA on SAP Service Marketplace at <http://service.sap.com/erp-ehp6hana-inst>.

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that are printed on both sides.**

8 Media List

The following tables provide you with information about the data carriers you need to update, migrate, and install your SAP ERP software. To download the media from the SAP Software Distribution Center (SWDC), go to <http://service.sap.com/swdc> and enter the names given in the third column.

Update and Migration Media

Material Number of the Media	Label printed on the Physical Media	Name of Media in the SAP Software Distribution Center
51043501	SAP KERNEL 7.38 64-BIT UNICODE incl. Non-Unicode	SAP Kernel 7.38 AIX 64bit SAP Kernel 7.38 HP-UX on IA64 64bit SAP Kernel 7.38 Linux on Power 64bit SAP Kernel 7.38 Linux on zSeries 64bit SAP Kernel 7.38 Linux on x86_64 64bit SAP Kernel 7.38 Solaris on SPARC 64bit SAP Kernel 7.38 Solaris on x64 64bit SAP Kernel 7.38 Windows Server on x64 64bit SAP Kernel 7.38 OS/400
51044054	EHP6 FOR SAP ERP 6.0 ON HANA	SAP ERP 6.0 EHP6 on HANA - Components 1 of 3 SAP ERP 6.0 EHP6 on HANA - Components 2 of 3 SAP ERP 6.0 EHP6 on HANA - Components 3 of 3
51043656	SAP HANA PLATFORM EDIT. 1.0 Client for all supported Operating Systems	SAP HANA Platform Edition 1.0 - Client for all supported OS
51044261	SAP NW AS ABAP 7.4 FOR SUITE SAP NETWEAVER 7.4 Application Server ABAP Enhancement Packages	NW AS ABAP for Suite/NW 7.4 - Enhancement Packages
51044239	SAP NW AS ABAP 7.4 FOR SUITE Reuse Components for SAP Business Suite on HANA	SAP NW 7.4 Reuse Components for Business Suite on HANA

Installation Media

Material Number of the Media	Label printed on the Physical Media	Name of Media in the SAP Software Distribution Center
51043656	SAP HANA PLATFORM EDIT. 1.0 Client for all supported Operating Systems	SAP HANA Platform Edition 1.0 - Client for all supported OS
51043501_9	SAP KERNEL 7.38 64-BIT UNICODE incl. Non-Unicode	SAP Kernel 7.38 OS/400
51043501_1	SAP KERNEL 7.38 64-BIT UNICODE incl. Non-Unicode	SAP Kernel 7.38 AIX 64bit

Material Number of the Media	Label printed on the Physical Media	Name of Media in the SAP Software Distribution Center
51043501_2	SAP KERNEL 7.38 64-BIT UNICODE incl. Non-Unicode	SAP Kernel 7.38 HP-UX on IA64 64bit
51043501_3	SAP KERNEL 7.38 64-BIT UNICODE incl. Non-Unicode	SAP Kernel 7.38 Linux on Power 64bit
51043501_4	SAP KERNEL 7.38 64-BIT UNICODE incl. Non-Unicode	SAP Kernel 7.38 Linux on zSeries 64bit
51043501_5	SAP KERNEL 7.38 64-BIT UNICODE incl. Non-Unicode	SAP Kernel 7.38 Linux on x86_64 64bit
51043501_6	SAP KERNEL 7.38 64-BIT UNICODE incl. Non-Unicode	SAP Kernel 7.38 Solaris on SPARC 64bit
51043501_7	SAP KERNEL 7.38 64-BIT UNICODE incl. Non-Unicode	SAP Kernel 7.38 Solaris on x64 64bit
51043501_8	SAP KERNEL 7.38 64-BIT UNICODE incl. Non-Unicode	SAP Kernel 7.38 Windows Server on x64 64bit
50113858	SAP NETWEAVER 7.0 Presentation SAP GUI for Windows 7.30 SAP GUI for Java 7.20 NetWeaver Business Client 3.5 SAP ITS, SAP IGS, Content Server Adobe LiveCycle Designer	NW 7.0 Presentation - Adobe LiveCycle Designer 8.0 NW 7.0 Presentation - SAP Content Server 6.40 NW 7.0 Presentation - MaxDB Release 7.6.03 NW 7.0 Presentation - MaxDB Release 7.7.07.20 NW 7.0 Presentation - MaxDB Release 7.8.02.26 NW 7.0 Presentation - 7.30 Compilation 1 Present. 1/2 NW 7.0 Presentation - 7.30 Compilation 1 Present. 2/2 NW 7.0 Presentation - Server Components 7.30 Compilation 1

Typographic Conventions

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

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Documentation in the SAP Service Marketplace

You can find this document at the following address: <http://service.sap.com/erp-ehp6hana-inst>

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