UPGRADE AND UPDATE GUIDE | PUBLIC
SAP NetWeaver 7.3 and 7.3 Including Enhancement Package 1
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# SAP NetWeaver Upgrade and Update Guide
## Preparation and Follow-Up Activities
## Technology: ABAP

THE BEST RUN **SAP**

# Content

# 1    Introduction

## 1.1    Document History

> **i** Note
>
> Before you start the implementation, make sure you have the latest version of this document. You can find the latest version at the following link: http://help.sap.com/viewer/nwguidefinder

| Version | Date | Description |
| --- | --- | --- |
| 1.0 | 2012-05-15 | Initial version |
| 1.1 | 2012-08-06 | Updated Version |
| 1.2 | 2013-02-05 | Source Release SAP NetWeaver 7.0 adapted |
| 1.3 | 2014-08-16 | Updated version; SAP Branding and Terminology updated; Upgrade and Update Guide now valid for SAP NW 7.3 and 7.3 EHP1 |
| 1.4 | 2018-07-19 | Updated chapter Checking the Free Space Requirements [page 7] |

## 1.2    About this Document

### Purpose

This document describes the preparation and follow-up activities that you need to perform when you update your SAP system to SAP NetWeaver 7.3 ABAP .

This document describes the preparation and follow-up activities that you need to perform when you update your SAP system to SAP enhancement package 1 for SAP NetWeaver 7.3 ABAP.

For clarity and readability, the generic term "update" is used in this document in the context of release upgrade, enhancement package installation and Support Package Stack application.

This document supplements the document *Update Guide – Update of SAP Systems Using Software Update Manager <version>* which includes general planning, preparation and follow-up activities, information about using the Software Update Manager, and troubleshooting information.

## Integration

In addition to this guide, you need the following documents:

- *Upgrade Master Guide – SAP NetWeaver 7.3*
  *Upgrade Master Guide – SAP Enhancement Package 1 for SAP NetWeaver 7.3*
  The *Upgrade Master Guide* guides you through the complete update process and refers you to the required documentation for each step.
  To find the latest version of this document, see SAP Service Marketplace at http://service.sap.com/upgradeNW73.
- *Update Guide – Update of SAP Systems Using Software Update Manager <version>*
  To find the latest version of this document, see SAP Service Marketplace at http://service.sap.com/sltoolset ⟩ *Software Logistics Toolset 1.0* ⟩ *SUM* ⟩.

# 1.3 Accessing Documentation

## Use

Before, during and after the update, you require the SAP online documentation.

There are different ways to access the online documentation:

- SAP NetWeaver Library on SAP Help Portal
  You can access the documentation for all maintained product releases on SAP Help Portal.
- Local installation of the SAP NetWeaver Library
  Before the update, make sure that you can read the documentation DVD offline. After the update, you need to install the documentation for the target release.

## Procedure

**SAP NetWeaver Library on SAP Help Portal**

Follow the applicable path to the SAP NetWeaver Library on SAP Help Portal:

| Release | Path |
|---|---|
| SAP NetWeaver 7.3 including enhancement package 1 | http://help.sap.com/nw731 ⟩ *Application Help* ⟩ |

| Release | Path |
| --- | --- |
| SAP NetWeaver 7.3 | http://help.sap.com/nw73 📌 ▶ *Application Help* ❯ |
| SAP NetWeaver Mobile 7.1 | http://help.sap.com/nwmobile71 📌 ▶ *Application Help* ❯ |
| SAP NetWeaver Mobile 7.1 including enhancement package 1 | http://help.sap.com/nwmobile711 📌 ▶ *Application Help* ❯ |
| SAP NetWeaver 7.0 | http://help.sap.com/nw70 📌 ▶ *Application Help* ❯ |
| SAP NetWeaver 7.0 including enhancement package 1 | http://help.sap.com/nw701 📌 ▶ *Application Help* ❯ |
| SAP NetWeaver 7.0 including enhancement package 2 | http://help.sap.com/nw702 📌 ▶ *Application Help* ❯ |

**Local Installation of the SAP NetWeaver Library**

Before and during the update, you must read the online documentation for the target release on the DVD.

> ➔ Recommendation
>
> If there is a Support Package available for the documentation, use the documentation version on SAP Help Portal.

# 1.4    SAP Notes

To prepare and perform the update of your SAP system, you require some additional information that is not included in this document. This information is in a range of SAP Notes in SAP Support Portal (http:// service.sap.com/notes 📌 ), some of which you must read before you start with the preparations. When you actually perform the update, you may need information from some additional SAP Notes. These SAP Notes are named at the appropriate places in this document.

## SAP Notes for Preparing the Update

You must request the following SAP Notes from SAP Support Portal before you start the update process:

● Central Software Update Manager Note
● Application-specific update Note: 1609441 📌
● SAP Note for your database

Since these SAP Notes are updated regularly, make sure that you always use the latest version.

## Other SAP Notes

As well as the SAP Notes you need for the preparation, this document also refers you to other SAP Notes that contain **additional** information. The following list contains these SAP Notes:

| SAP Note Number | Description |
| --- | --- |
| 28022 | Customer system: Where-used list of SAP objects |
| 46272 | Implement new data class in technical settings |
| 737625 | Parameter recommendations for the ICM |
| 832712 | BW: Migration of Web items from 3.x to 7.0 |
| 851449 | Changeability of BW objects during the upgrade |
| 888362 | Helpful technical hints for installing and maintaining MIC |
| 920416 | Checking compounding consistency in MultiProviders |
| 923176 | Support situation authorization management BI70/ NW2004s |
| 955990 | BI in SAP NetWeaver 7.0: Incompatibilities with SAP BW 3.x |
| 1009987 | Compounding problem in MultiProviders |
| 1032635 | Generated structures disappear after upgrade |
| 1056259 | Collective note: Performance of BI planning |
| 1086744 | MultiProvider inconsistency BRAIN A152 or R7I 135 |
| 1101143 | Collective note: BEx Analyzer performance |
| 1139642 | Hardware Requirements in Unicode Systems |
| 1228378 | Problems w/ formula exception aggregation in NetWeaver 2004s |
| 1494272 | DataSource: Web service function group missing after up- grade |
| 1600929 | SAP BW powered by SAP HANA DB: Information |

# 2 Preparations for the Update

This part of the document contains information about the preparations that you need to make before you update your system.

You can prepare for the update while the system is in production operation. Careful preparation of the update is the best guarantee that it runs without errors.

The Software Update Manager supports you here by making a range of checks automatically in the preparation roadmap steps (*Initialization*, *Extraction*, *Configuration*, and *Checks*). To make sure that all requirements are met, run the preparation roadmap steps of Software Update Manager as soon as possible. You can reset and repeat the preparation roadmap steps as often as you need by choosing *Back* before you start the actual procedure in roadmap step *Preprocessing*. The successful execution of the preparation roadmap steps is a prerequisite for starting the roadmap step *Preprocessing*.

**Actions**

You perform the following actions before you start the Software Update Manager:

- Checking the Free Space Requirements [page 7]
- Checking the Source Release of the SAP System [page 8]
- 
- Using the Application-Specific Upgrade Toolbox [page 9]
- BW: Changeability of SAP BW Objects During the Upgrade [page 10]
- BW: Applying Corrections to Prevent the Loss of Function Groups for the DataSources Web Service During the Upgrade [page 11]
- BW: Converting Data Classes of InfoCubes [page 11]
- BW: Checking Inconsistent InfoObjects [page 12]
- BW: Migrating InfoPackage Groups for Source Release SAP BW 3.5 [page 13]
- BW: Migrating to the New Reporting Authorization Concept [page 14]
- BW: Checking for Incompatibilities with Source Release SAP BW 3.5 [page 14]
- BW: Creating and Running Report for Open Hub [page 14]
- BW: Migrating SAP Business Warehouse (BW) system to the SAP HANA [page 15]

## 2.1 Checking the Free Space Requirements

Make sure that at least the following free space is available in the system that you want to update:

| | |
|---|---|
| SUM Directory | Approximately 40 GB |
| Download Directory (temporary space requirement) | Approximately 40 GB |
| DIR_TRANS | Approximately 20 GB |

| Shadow System | Approximately the space required for your source release instance, that is, the size of the following directory: |
|---|---|
| | <ul><li>UNIX: `/usr/sap/<sapsid>`</li><li>Windows: `<Drive>:\usr\sap\<sapsid>`</li><li>IBM i: `/usr/sap/<SID>`</li></ul> |

## 2.2 Checking the Source Release of the SAP System

**Use**

> i Note
>
> - This step is not required if you apply a Support Package Stack.
> - See also the PDF document, which is attached to the central SUM note, for a graphical representation of the supported update and upgrade paths.
> - The Software Update Manager will check whether your source release is supported for this update.

Before the update, your SAP system must have one of the source releases that have been released for this update and apply to all databases:

- SAP NetWeaver 7.3
- SAP NetWeaver Mobile 7.1 including enhancement package 1
- SAP NetWeaver Mobile 7.1
- SAP NetWeaver 7.0 including enhancement package 2
- SAP NetWeaver 7.0 including enhancement package 1
- SAP NetWeaver 7.0 SPS 14 (or higher)
- SAP NetWeaver 2004 SPS 09 (or higher)

- SAP Web Application Server 6.40 ABAP
- SAP NetWeaver 7.0 – product instance AS ABAP
- SAP NetWeaver 7.0 including enhancement package 1 – product instance AS ABAP
- SAP NetWeaver 7.0 including enhancement package 2 – product instance AS ABAP
- SAP NetWeaver 7.3

- SAP BW 3.5
- SAP NetWeaver 7.0 SP 19 (or higher) – product instance BI
- SAP NetWeaver 7.0 including enhancement package 1 – use case Data Warehousing
- SAP NetWeaver 7.0 including enhancement package 2 – use case Data Warehousing
- SAP NetWeaver 7.3 – use case Data Warehousing

> i Note
>
> **SAP NetWeaver BW powered by SAP HANA database**

> If you want to update SAP NetWeaver Business Warehouse powered by SAP HANA database, the required source release is:
>
> - SAP NetWeaver 7.3 – use case Data Warehousing

Different SAP NetWeaver product instances have different minimum Support Package Stack levels. If you update an SAP NetWeaver system containing various product instances, make sure that your source system is on any acceptable Support Package Stack level for all product instances implemented in the system.

> **i Note**
>
> Make sure that you include at least Support Package Stack 02 in the upgrade.

> **⚠ Caution**
>
> If you have to apply Support Packages to your source release shortly before the update, check whether the equivalent Support Package Stack for the target release is already available. Otherwise, this may delay your update schedule.

## Procedure

### Procedure for ABAP Systems

To determine the source release of the SAP system, log on to the system and choose ▶ *System* ▶ *Status* ▶.

The release appears in the *Component version* field.

## 2.3 Using the Application-Specific Upgrade Toolbox

### Use

The application-specific upgrade toolbox (ASU toolbox) allows you to manage the preparation and follow-up activities you need to perform for the technical upgrade.

It consists of two parts:

- Application-specific content (ASU content definition) in the form of an XML file
  The XML file contains a list of manual and automatic steps. It is included in the upgrade export and updated with the correction package for the upgrade program.
- Interface that interprets the XML file and presents the steps to the user for processing
  Before the upgrade, this interface displays the preparation activities. After the upgrade, it displays the follow-up activities.
  Using the interface, you can enhance the XML file with your own activities and comments.

**Prerequisites**

- Your source release SAP system contains the add-on ST-PI 2008_1_ <x> (where <x> stands for one of the following: 46C, 620, 640, 700, 710).
- You require authorization for the following transactions:
    - /ASU/START
    - /ASU/UPGRADE
    - /ASU/SSM
- You have the authorizations that you require for the individual activities in the ASU toolbox step list.

> → Recommendation
>
> Operate the ASU toolbox with a user with `SAP_ALL` authorizations.

**Procedure**

In roadmap step *Checks*, the upgrade program prompts you to call transaction /ASU/UPGRADE.

For more information, see SAP Note 1000009 .

> i Note
>
> You can perform the follow-up activities listed in the ASU toolbox in parallel to adjusting repository objects using transaction SPAU.

## 2.4 BW: Changeability of SAP BW Objects During the Upgrade

> i Note
>
> This section is for your information only.

The upgrade program sets the SAP BW system to "not changeable" in the `LOCKEU_PRE` phase (for preconfiguration mode *low resource use*) or at the latest in `REPACHK2` phase (for preconfiguration mode *standard resource use* or *high resource use*). Depending on the Support Package level of your source release, you are able to change some objects, info package groups and info packages until the beginning of downtime.

For more information, see SAP Note 851449 .

## 2.5  BW: Applying Corrections to Prevent the Loss of Function Groups for the DataSources Web Service During the Upgrade

### Use

During the upgrade of an SAP NetWeaver BW system, you may experience a loss of the generated function groups for the *DataSources* Web service.

### Procedure

To prevent losing function groups for the *DataSources* Web service during the upgrade, proceed as described in SAP Note 1494272 .

## 2.6  BW: Converting Data Classes of InfoCubes

### Use

In the customer system, DDART data classes were set up that do not correspond to the naming conventions described in SAP Note 46272 . These data classes were assigned to InfoCubes in the maintenance transaction RSDCUBE. These data classes are lost during the upgrade since only data classes that use the naming conventions are saved. This means that the tables that are generated for an InfoCube cannot be activated correctly.

You can use the RSDG_DATCLS_ASSIGN report to change the assignment to a correct, valid data class.

### Procedure

1. Check in your system if DDART data classes exist that do not correspond to the naming conventions:
    1. Call transaction SE16 and check the table RSDCUBE.
    2. Select *OBJVERS equal 'M', 'A';* and check the entries for the fields *DIMEDATCLS*, *CUBEDATCLS*, *ADIMDATCLS*, and *AGGRDATCLS*.
       All InfoCubes are listed with their assigned data classes.
    3. Compare the data classes with the naming conventions for data classes described in SAP Note 46272 .
2. If you find incorrect data classes, correct them as follows:
    1. Set up a new data class as described in SAP Note 46272

2. Execute the RSDG_DATCLS_ASSIGN report.

   With this report, you can switch the data class for multiple InfoCubes in one run. For example, you can assign the valid data class "ZABC" to all InfoCubes that have assigned the invalid data class "ABC" in one run.

## Result

All processed InfoCubes that have previously been assigned to the invalid data class are now assigned to the new data class, including their metadata and the generated database tables. Problems connected with data classes no longer occur during the upgrade.

## 2.7 BW: Checking Inconsistent InfoObjects

### Use

Before you start the upgrade program, you check the InfoObjects and repair them if necessary.

### Procedure

1. Log on to the SAP system.
2. Call transaction RSD1.
3. Choose ▶ *Extras* ❯ *Repair InfoObjects (F8)* ◥.
4. Choose ▶ *Execute Repair* ◥.
5. Choose ▶ *Expert Mode* ❯ *Select Objects* ◥.
6. On the following screen, in addition to the default checkbox selection, activate the following checkboxes:
   ○ *Check Generated Objects*
   ○ *Activate Inconsistent InfoObjects*
   ○ *Deletion of DDIC/DB Objects*
   ○ *Display Log*
7. Execute the program.

> **i Note**
>
> **SAP NetWeaver BW powered by SAP HANA database**
>
> For objects related to SAP HANA, you execute also the report `RSDU_TABLE_CONSISTENCY_CHECK`.

**Result**

The program repairs the inconsistent InfoObjects as far as possible. After the InfoObjects have been repaired, check them again, and manually correct any remaining inconsistencies.

## 2.8 BW: Migrating InfoPackage Groups for Source Release SAP BW 3.5

**Use**

> ⚠ Caution
>
> As of SAP NetWeaver 7.0, the InfoPackage group functions are no longer supported in the Data Warehousing Workbench.

Instead of using InfoPackage groups, we strongly advise you to use process chains. Although it is still possible to work with InfoPackage groups using transaction RSA1OLD in the target release, we recommend that you migrate your InfoPackage groups to process chains before the upgrade. Process chains provide the same functions as well as related (successor) functions.

> ⓘ Note
>
> Alternatively, you can migrate the InfoPackage groups after the upgrade as described in BW: Follow-Up Activities for the Managing Enterprise Business Intelligence Scenario [page 19].

**Procedure**

1. In the SAP system menu, choose ▌▶ *Administration* ❭ *Administrator Workbench: Monitoring* ❭ *InfoPackages* ❭.
2. To open the scheduler, choose *Schedule* for the InfoPackage group.
3. To migrate the InfoPackage group, choose *Process Chain Management*.

## 2.9 BW: Migrating to the New Reporting Authorization Concept

**Use**

As of SAP NetWeaver Business Intelligence 7.0, a new reporting authorization concept has been introduced. The previous Reporting Authorization concept is no longer supported and can no longer be used. Therefore, you need to migrate from the old to the new Reporting Authorization concept.

**Procedure**

For more information about migrating from the old to the new concept, see SAP Note 923176 .

## 2.10 BW: Checking for Incompatibilities with Source Release SAP BW 3.5

**Use**

Before you start upgrading your BW system, we recommend that you check for all incompatibilities of your target release with the source release SAP Business Information Warehouse 3.5.

**Procedure**

For more information about known incompatibilities and how to handle them, see SAP Note 955990 .

## 2.11 BW: Creating and Running Report for Open Hub

**Use**

Before you upgrade to SAP NetWeaver BI 7.0 or higher, you need to create and run report ZCREATE_TADIR_INFOSPOKE_STRUCT. This report saves generated structures in namespace /BIC/C which are otherwise lost during the upgrade. These structures are used in Open Hub Service (Info Spoke) to perform transformations using Business Add-Ins (BAdI). They do not have an entry in the object catalog table TADIR.

**Procedure**

1. In your SAP BW source system, call transaction SE38.
2. Create report ZCREATE_TADIR_INFOSPOKE_STRUCT as an empty executable.
3. Copy the coding from SAP Note 1032635 to the report.
4. Run report ZCREATE_TADIR_INFOSPOKE_STRUCT.

## 2.12 BW: Migrating SAP Business Warehouse (BW) system to the SAP HANA database (DB)

**Use**

With SAP NetWeaver Business Warehouse (SAP NetWeaver BW) powered by SAP HANA database, SAP offers the SAP HANA database being the in-memory deployment option for the Data Warehousing use case. You can migrate your SAP Business Information Warehouse (BW) system to the SAP HANA database (DB).

**Prerequisites**

Support Package 04 or higher is required for SAP NetWeaver (NW) 7.31 BW installation (ABAP) to use SAP NetWeaver Business Warehouse (SAP NetWeaver BW) powered by SAP HANA database.

**Procedure**

See SAP Note 1600929 for more information regarding the migration to SAP NetWeaver BW powered by SAP HANA database.

# 3    Follow-Up Activities After the Update

This part of the document contains information about the follow-up activities that you need to perform after you have updated your SAP system.

When you perform follow-up activities, note the following information:

- Before you start the follow-up activities, you must have run the update up to and including the `MODPROFP_UPG` phase.
  The Software Update Manager stops in the `MODPROFP_UPG` phase and prompts you to start several follow-up activities. It then executes the last phases and completes the update. At the same time, you can already perform the specified follow-up activities.

The follow-up activities are divided into three blocks:

- Actions needed before resuming production operation
  These actions ensure that all the processes that are relevant to system operation are available again. You can start these actions while the Software Update Manager is finishing the update.
- Actions during limited production operation
  During this time, your SAP system is already consistent and all the processes that are relevant to system operation are available. However, this system state does not yet contain measures for optimizing performance, or actions for resuming standard operation (resuming background processing, or adjusting authorizations, for example). Check the actions that are listed in this block and if necessary, perform them before you restart production operation.
- Actions during production operation
  You can also perform these actions when the system is back to production operation.

**Actions**

You must perform the following actions **before you resume production operation** of your system:

- BW: Converting the Web Objects from Source Release SAP BW 3.5 [page 17]
- BW: Performing Follow-Up Activities for the Enterprise Data Warehousing Scenario [page 19]
- BW: Performing Follow-Up Activities for the Analytic Engine [page 21]
    - BW: Checking the MultiProvider Design [page 22]
    - BW: Optional: Improving Application Performance [page 22]
    - BW: Handling Incompatibilities with Source Release SAP BW 3.5 [page 23]
- BW: Activating Hierarchy Versions [page 23]
- 

You can perform the following actions **during production operation** of your system:

- BW: Converting Terminology for SAP Retail [page 27]
-

## 3.1 BW: Converting the Web Objects from Source Release SAP BW 3.5

### Use

For SAP NetWeaver 7.0, the design of Web items (library items) and Web templates has changed considerably. If you use these kind of Web objects, you must migrate them to the SAP NetWeaver 7.0 design.

> **i Note**
>
> The migration of the Web items must be finished before you start migrating the Web templates, as Web templates can contain Web items.

Web items and Web templates are migrated as follows:

- Web items:
  You migrate Web items in the ABAP back-end system using report RSZW_ITEM_MIGRATION_3X_TO_70. As of SAP NetWeaver 7.0, libraries no longer exist. Instead, the Web items (library items) formerly contained in the library are moved to a folder that is named after the old library and is located at the same position within the role. If you use the SAP Easy Access menu, you can see both the old library and the new folder containing the reusable Web items.
- Web templates:
  You migrate Web templates in the BEx Web Application Designer.

> **⚠ Caution**
>
> Not all Web templates can be migrated automatically. In many cases, you need to perform manual actions during or after the migration. Some SAP BW 3.x constructions cannot be migrated at all because the underlying concepts and paradigms have changed. Some SAP BW 3.x constructions can be achieved more easily with SAP NetWeaver BI 7.0 means. However, the semi-automatic conversion does not always find the best representation.

> **→ Recommendation**
>
> We reserve the right to restrict or deactivate SAP BW 3.x functions, if necessary. Therefore, we recommend that you use SAP NetWeaver BI 7.0 Web design and runtime functions.

The migration of Web templates does not change or delete SAP BW 3.x Web templates. Instead, it creates a new, independent object. This implies the following:

- You can change the SAP BW 3.x Web templates with the old runtime environment. Changes to the old Web templates are not reflected in the migrated version of the Web template.
- You can repeat the migration, for example, after applying Support Packages to your system. With the updates from the Support Package, the migration may return better results.

As the elements contained in Web templates are strongly influenced by metadata, you need the metadata from the back end to perform the migration on the front end. If the metadata does not already reside on the client, it is automatically downloaded when you start BEx Web Application Designer. If you want to download the metadata while the application is running, you can use the download menu function under *Tools* > *Settings* .

In contrast to other Web templates, queries and query views from SAP BW 3.x can be used on the target release without migrating them to the target release. Once you change them with Query Designer, they are automatically migrated to the target release format. The old format remains in parallel to the new. For more information, see SAP Note 832712 .

## Prerequisites

- All migrations, including the chart settings, must have been finished without errors.
- SAP Portal has been integrated into SAP NetWeaver BW to validate and save the migrated Web templates.
- You have applied the most current version of the SAP NetWeaver BW front end on your client PCs to migrate Web templates.

## Procedure

### Migrating Web Items

To migrate Web items from Release 3.x to Release 7.0 or higher, use report RSZW_ITEM_MIGRATION_3X_TO_70. In this report, you can perform the following actions:

- You can select single items, libraries, or roles:
  - If you select single items, only these items are migrated.
  - If you select libraries, all items within the selected library are migrated.
  - If you select roles, all items that are contained in the libraries of these roles are migrated.
- You can choose if assignments to roles are kept completely or partially. You can also assign items to a certain (existing) role. This applies to items that have not been assigned to a role previously and to all items of a selection.

> → Recommendation
>
> Always select the respective checkbox and choose a role to assign items within the selection that have not been assigned previously. This way, you can easily identify these items after the migration.

For more information, see SAP Note 832712 .

### Migrating Web Templates

> ⚠ Caution
>
> The migration of the Web items must have been completely finished before you start migrating the Web templates.

1. Start BEx Web Application Designer in Business Explorer.
2. Select the Web template you want to migrate.
   The BEx Web Application Designer starts the Web template conversion:
   - If BEx Web Application Designer can generate valid XML, you are not asked to perform manual actions.
   - If BEx Web Application Designer cannot generate valid XML, you must continue the conversion manually. Change and check the Web template until you have a valid XML version. The version is valid

if there are no more syntactical errors and the check only issues information or warning messages. If necessary, you can undo all your changes to the Web template.

Once the Web template XML is valid, BEx Web Application Designer converts the Web template based on the available metadata.

3. Confirm the migration.
   BEx Web Application Designer displays the Web template in the XHTML view. It also displays remaining errors or warnings.
4. Correct the remaining errors and check if the template can be improved with new functions from the design environment. For example, you can generate commands more easily with the new Command Wizard.
5. Save the Web template.
   You can keep the old name or choose a new one. The SAP BW 3.x Web template is not overwritten.
6. Test the new Web template.

For more information, see SAP Note 832713. This SAP Note also contains information about limitations and corrections for the migration procedure and is updated regularly.

## 3.2 BW: Performing Follow-Up Activities for the Enterprise Data Warehousing Scenario

### Use

> **i Note**
>
> This section only applies to upgrades with the start release SAP BW 3.5.

Before you can use the Enterprise Data Warehousing Scenario, perform the following activities.

> **i Note**
>
> You must generate hash values **before** you execute the check and conversion programs.

### Procedure

**Generating Hash Values for Scheduler Selections**

You can improve system performance by running report RSSM_HASH_ENTRIES_CREATE.

With the report, internal tables are constructed for each request. These tables contain the various selections of the request and mark each of them with a 40 character hash value. The hash values for the selections are stored in the tables RSSELDONE (field SEL_HASH, data selection) and RSREQDONE (fields META_HASH - miscellaneous meta selection, TCP_HASH - third party selections, LDT_HASH - InfoPackage texts, RULE_HASH, routines, UIC_HASH - data target selections).

Afterwards, entries for each hash value are generated in the following tables:

- RSHASHCTRL: Control table before hash key for rs*done tables
- RSHASHDATA : Data for hash encryption
- RSHASHMAP: Mapping hash key for InfoPackage ID
- RSHASHTYP: Type of hash key

If a new request is now generated, the system first maps the selections of this request using hash values and then checks whether the new hash keys SEL_HASH and TCP_HASH are already in table RSHASHMAP as a triplet. If this is the case, there has already been a request with these selections and the system transfers the InfoPackage ID from the RSHASHMAP table. If this is not the case, a new InfoPackage ID is generated and entered into the RSHASHMAP table. The six new hash values are entered into the RSHASHCTRL and the RSHASHDATA tables, if they are not already entered. The RSHASHTYP is for a later version.

### Procedure

To generate the hash values, proceed as follows:

1. Choose transaction SE38.
2. Run report RSSM_HASH_ENTRIES_CREATE for all requests in the system.
   You can specify the parallel processing of the report.

### Executing Check and Conversion Programs for Request Information

To achieve better performance when displaying requests (for example, in the administration of the InfoProvider) and when loading data, the administration information for requests is now stored in special tables (RSSTATMANPART and RSSTATMANPARTT for InfoProviders and RSstatmanpsa and RSstatmanpsaT for PSA tables). This allows quicker access.

When you execute check and conversion programs, the system checks the status of all requests for the selected objects. The available request information for existing objects is written to the new table for quick access, and the new status management is filled with the existing data.

> **i Note**
>
> Avoid changing the InfoProvider before running the reports in administration as this automatically executes the construction of the quick access table for this InfoProvider (and if necessary the marking of the selection with hash values) and this severely reduces performance.

### Procedure

1. Execute the reports RSSTATMAN_CHECK_CONVERT_DTA and RSSTATMAN_CHECK_CONVERT_PSA in the background, at least once, for all objects (InfoProviders and PSA tables).

   > **→ Recommendation**
   >
   > When you schedule the reports, provide them with as many resources as possible.

   For large systems with hundreds of data targets (and a similar number of PSA tables) as well as hundreds of thousands of requests, both of these reports can take several hours to run, even if many jobs are done in parallel.
2. Check that the reports have successfully converted your BW objects.

> ⚠ **Caution**
>
> Only perform the archiving runs for request administration data after you have executed the reports
> RSSM_HASH_ENTRIES_CREATE, RSSTATMAN_CHECK_CONVERT_DTA and
> RSSTATMAN_CHECK_CONVERT_PSA.

**Migrating InfoPackage Groups**

> **i** Note
>
> If you have migrated the InfoPackage groups before the upgrade as described in BW: Migrating InfoPackage
> Groups for Source Release 3.5 [page 13], you can skip this section.

> ⚠ **Caution**
>
> As of SAP NetWeaver 7.0, the InfoPackage group functions are no longer supported in the Data
> Warehousing Workbench.

Instead of using InfoPackage groups, we strongly advise you to use process chains. Although you can still work
with InfoPackage groups using transaction RSA1OLD in the target release, we recommend that you migrate
your InfoPackage groups to process chains before you use the SAP system in production operation. Process
chains provide the same functions as well as related (successor) functions.

**Procedure**

1. Open SAP Customizing Implementation Guide under ▐▶ *Business Warehouse* ❯ *General Settings* ❯ *Hide 3.x Functions of Data Warehousing Workbench* ◀▌.
2. Make sure that *Hide 3.x Functions* is not selected
3. In your target SAP system, call transaction RSA1OLD.
4. Choose ▐▶ *Administrator Workbench: Monitoring* ❯ *InfoPackages* ◀▌.
5. To open the scheduler, choose *Schedule* for the InfoPackage group.
6. To migrate the InfoPackage group, choose *Process Chain Management*.

**Parallel Background Processing**

With parallel background processing in BW, we recommend that you make available a minimum of five
background processes. If you are already using more than three background processes, increase the number of
background processes accordingly.

## 3.3 BW: Performing Follow-Up Activities for the Analytic Engine

This section describes follow-up activities and checks that you need to perform for the Analytic Engine after
the upgrade:

- BW: Checking the MultiProvider Design [page 22]
- BW: Optional: Improving Application Performance [page 22]
- BW: Handling Incompatibilities with Source Release SAP BW 3.5 [page 23]

### 3.3.1 BW: Checking the MultiProvider Design

**Use**

To prevent query runtime issues while a query is running on top of a MultiProvider, we recommend that you check the compounding consistency and run report RSR_MULTIPROV_CHECK for all MultiProviders. The output of the report gives you an overview of the design issues for your MultiProviders and informs you whether you need to make any changes.

**Procedure**

1. To check the compounding consistency, proceed as described in SAP Note 920416 .
2. Call transaction SE38 and enter report RSR_MULTIPROV_CHECK in the *Program* field.
3. On the next screen, enter the names of the relevant MultiProviders and choose *Re-create*.
4. If necessary, make the required changes.

> **i** Note
>
> When running report RSR_MULTIPROV_CHECK, you might receive the following error messages:
>
> - `BRAIN A152`
> - `R7I 135`
> - `BRAIN 313`
>
> For more information about handling error message `BRAIN A152` and error message `R7I 135`, see SAP Note 1086744 .
>
> For more information about handling error message `BRAIN 313`, see SAP Note 1009987 .

### 3.3.2 BW: Optional: Improving Application Performance

**Use**

To improve the performance of your application after the upgrade, we recommend that you perform several follow-up activities described in the SAP Notes mentioned below.

## Procedure

For more performance-relevant information regarding the reporting of BW objects, see the following SAP Notes:

- 1228378
- 1056259
- 1101143

### 3.3.3  BW: Handling Incompatibilities with Source Release SAP BW 3.5

## Use

When preparing your upgrade, you might have noticed incompatibilities of your target release with Source Release SAP Business Information Warehouse 3.5.

## Procedure

To handle these incompatibilities, proceed as described in SAP Note 955990.

## 3.4    BW: Activating Hierarchy Versions

## Use

For SAP NetWeaver 7.0, fixed values for hierarchy versions have changed. To avoid problems when working with hierarchy nodes, you must activate all hierarchy versions again with program RRINCLTAB_REBUILD.

> **i Note**
>
> Program RRINCLTAB_REBUILD can activate all hierarchies of a characteristic together. If you are using a lot of hierarchies in your system, perform the program in the background.

## Procedure

Execute program RRINCLTAB_REBUILD for all hierarchies.

## 3.5 Activating the ICM Service

**Use**

> **i Note**
>
> This step only applies if you have not used the PI Upgrade, PI Upgrade EHP, or PI/ESR Support Package Update CTC Wizard to perform the basic configuration steps after the update.

The Software Update Manager disables services of the Internet Communication Framework (ICF) during the update for security reasons. You have to activate the services that you require again after the update.

**Procedure**

Call transaction SICF and activate the required services by executing function module SXMB_ACTIVATE_ICF_SERVICES.

**More Information**

For information about parameter recommendations for the ICM, see SAP Note 737625 .

## 3.6 Updating the Where-Used List in the ABAP Workbench

**Use**

> **i Note**
>
> This action is optional.

The where-used list for ABAP Dictionary objects and object types has its own index. If you need a complete display of the where-used list in your SAP system, you must re-create the index after the update.

**Prerequisites**

You have generated the loads in your system.

## Procedure

To create the index, you need to run report SAPRSEUB in the background.

> **i Note**
>
> Since the runtime of the report may be long, we recommend that you run it in the development system only.

For more information about this report, see SAP Note 28022 .

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## 3.7    Activating Business Functions

### Use

Functions provided by SAP enhancement packages for SAP NetWeaver are active in your system right after the installation. The only exception is *Information Lifecycle Management (ILM)*, which has to be activated, since it requires a separate license.

> **⚠ Caution**
>
> Once you have activated a business functions, you cannot deactivate it.

### Procedure

1.  Log on to the development system as a user with authorization SAP_ALL.
2.  Disable all batch jobs.
3.  Close the system for all other users.
4.  Call transaction SFW5.
5.  Optionally, choose an Industry Solution in the business function set drop down box.

    > **⚠ Caution**
    >
    > You can only activate one business function set.

6.  Select the required business functions.
7.  To activate a new business function, set the planned status to *On* and choose *Check Changes*.
8.  If no error is reported, you can activate the new functions by choosing *Activate Changes*
    The batch job for DDIC and BC set activation starts immediately. The job runs between 30 and 120 minutes approximately.
9.  When the activation is completed, reschedule all batch jobs in the development system and unlock the users.

## 3.8 PI: Performing Follow-Up Activities for SAP Solution Manager

1. Connect the newly updated SAP system to SAP Solution Manager.
   For more information, see the *Configuration Guide: SAP Solution Manager*, sections "Solution Monitoring: Setting Up the SAP Solution Manager" and "Solution Monitoring: Setting Up the Service Data Control Center" on SAP Service Marketplace at http://service.sap.com/instguides ➥▌▶ *SAP Components* ❭ *SAP Solution Manager* ❭ *Release <x>* ❭.
2. Activate the EarlyWatch alert.
   For more information, see the SAP Solution Manager online documentation at ▌▶ *SAP Solution Manager* ❭ *Solution Monitoring* ❭ *Using SAP EarlyWatch Alert* ❭.

## 3.9 Performing Follow-Up Activities for the Enterprise Services Repository

You have to update the SAP BASIS content by manually importing the XI content as described in the SAP Library at:

http://help.sap.com/nwce72 ➥▌▶ *SAP NetWeaver Composition Environment 7.2* ❭ *SAP NetWeaver Composition Environment Library* ❭ *Administrator's Guide* ❭ *Configuring Additional Components* ❭ *Configuring Enterprise Services Repository* ❭ *Wizard-Based Basic Configuration* ❭ *Importing ESR Content* ❭

## 3.10 Performing Follow-Up Activities for Application Link Enabling (ALE)

### Use

**Release upgrade only:**

If you are using Application Link Enabling Shared Master Data Management, you need to migrate the change pointers to the new table BDCP2 after the upgrade. Until you have migrated all change pointers, both the former and the new table are used. For performance reasons, migrate the change pointers as soon as possible after the upgrade.

**Enhancement package installation and SPS update:**

If you are using Application Link Enabling Shared Master Data Management, you need to migrate the change pointers to the new table BDCP2 after the update. Until you have migrated all change pointers, both the former and the new table are used. For performance reasons, migrate the change pointers as soon as possible after the update.

## Procedure

1. To check which message types are affected and how many change pointers need to be migrated, run report RBDCPMIG_ALL_WITHOUT_MIG_FLAG in test mode.
2. Decide if you want to run the report for all message types at once or separately.
   Running the report for each message type separately splits up the total runtime into smaller sections.
3. Run report RBDCPMIG_ALL_WITHOUT_MIG_FLAG in production mode.

> → Recommendation
>
> If you directly access tables BDCP, BDCPS and BDCPV from your own programs, you need to adjust the source code. We recommend that you do not directly access the SAP tables, but use the interfaces provided for this purpose instead.
>
> When you use change pointers, use the following function modules:
>
> - For generation
>   - CHANGE_POINTERS_CREATE
>   - CHANGE_POINTERS_CREATE_DIRECT
>   - CHANGE_POINTERS_CREATE_LONG
> - For reading
>   - CHANGE_POINTERS_READ
> - For changing the status
>   - CHANGE_POINTERS_STATUS_WRITE
> - For deletion
>   - CHANGE_POINTERS_DELETE

## 3.11 BW: Converting Terminology for SAP Retail

### Prerequisites

You use SAP BW as part of the SAP Retail solution.

### Procedure

If you want to convert the user interface of your BW system to retail-specific terms, proceed as described in the documentation about retail content. You can find this documentation on SAP Help Portal at http:// help.sap.com 🔗 ▶ *SAP NetWeaver* ▶ *SAP NetWeaver by Key Capabilitiy* ▶ *Information Integration* ▶ *BI Content* ▶ *Industry Solutions* ▶ *Retail* ▶ *Retail Terminology* ▶. Convert the short texts only after you have imported Support Packages, otherwise new texts overwrite texts that have already been converted.

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