First Guidance...
SAP BW Powered by SAP HANA:
New Installation/Import - Including HLM

Applicable Releases:

SAP HANA 1.0 SPS 05 (Rev. 45)
SAP NetWeaver BW 7.30 SP08
SAP NetWeaver BW 7.31 SP06
SAP NetWeaver BW 7.40 SP05
and higher

External Use

This "SAP First Guidance" document should help to quickly implement either a new SAP NetWeaver BW powered by SAP HANA installation or an export of an existing system with anyDB Export.
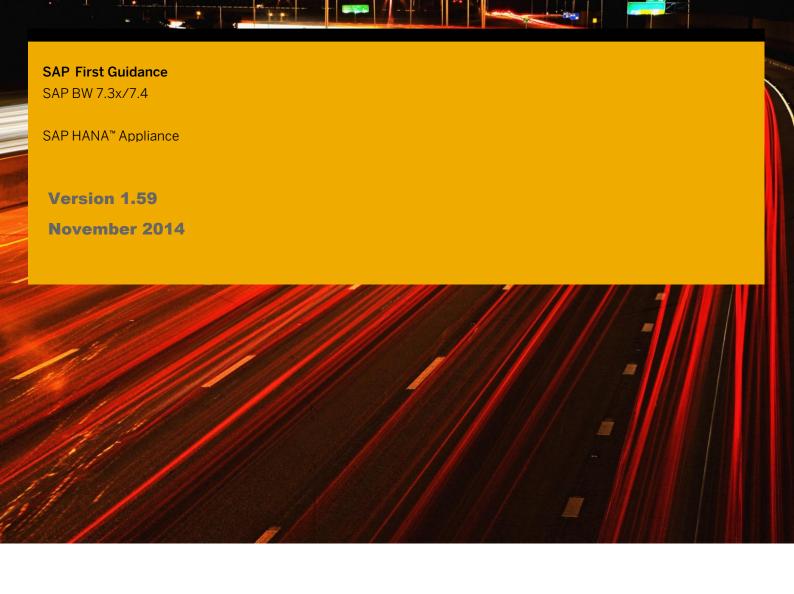
As the technical installation steps are the same this "SAP First Guidance" document should make an own created customer specific documentation obsolete.
It is the complementary documentation to the existing e2e Guide for migration to SAP NetWeaver BW powered by SAP HANA.

The document is "work in progress" and not intended to be exhaustive, but it contains everything to successfully install the technical ABAP system based on HANA.

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SAP®   The Best-Run Businesses Run SAP™

SAP First Guidance

SAP BW 7.3x/7.4

SAP HANA™ Appliance

Version 1.59

November 2014

SAP

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Document History

Document Version	Description
1.00	First official release
1.10	Update for BW 7.30 SP06 and HANA 1.0 Rev. 23
1.20	Update for BW 7.30 SP07 and HANA 1.0 Rev. 26/27 - 34
1.30	Editorial revision
1.42	Update for BW 7.30 SP08 and HANA 1.0 Rev. 35 - 37
1.50	Update for BW 7.30/7.31 and HANA 1.0 SP05/SP06 (Rev. 45 - 63) Chapter Export Preparation added, SL toolset 1.0 (SUM, SWPM)
1.51	HANA Updates (Rev. 60 - 65), additions, corrections, Notes
1.52	HANA Updates (Rev. 66 - 68), additions, corrections, Notes
1.53	HANA Updates SP06/SP07, additions, corrections, Notes
1.54	HANA Maintenance Rev. 69.x and 70.x, Security, 7.40 Implications
1.55	HANA SP07 Revisions, additions, corrections, Notes
1.56	HLM usage replacing SUM/HUI, HANA SP06/SP07 Revisions
1.58	Adding SP07/SP08 Revisions
1.59	Adding SP09 Revisions/New Features

Typographic Conventions

Type Style	Description
Example Text	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options.
	Cross-references to other documentation
Example text	Emphasized words or phrases in body text, graphic titles, and table titles
`Example text`	File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
`Example text`	User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.
`<Example text>`	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
`EXAMPLE TEXT`	Keys on the keyboard, for example, `F2` or `ENTER`.

Icons

Icon	Description
⚠	Caution
💡	Note or Important
⬡	Example
⬆	Recommendation or Tip

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1.   Installation SAP BW Powered by SAP HANA

With SAP HANA SP07 several applications for the HANA lifecycle management included in the SL toolset 1.0 are deprecated, e.g.:

- SUM for HANA 1.0
- HANA 1.0 unified installer
- HLM (deprecated with HANA SP08)

1.1 Prepare SAP HANA lifecycle management (HLM)

The SAP HANA lifecycle manager provides services to customize and to maintain your SAP HANA system.

See the SAP HANA Help Section - for HANA 1.0 SP07

http://help.sap.com/hana_appliance#section4

What's New in the SAP HANA Platform (Release Notes)

http://help.sap.com/hana/Whats_New_SAP_HANA_Platform_Release_Notes_en.pdf

Software Components for the SAP HANA 1.0 - Platform Edition

The SAP HANA Platform Edition is composed of the following components:

- SAP HANA database
- SAP HANA client
- SAP HANA client for Microsoft Excel
- SAP HANA studio (including SAP HANA STUDIO RSA PLUGIN)
- SAPUI5 Tools IDE PLUGIN
- SAP Host Agent
- Diagnostics Agent
- SAP HANA information composer
- SAP HANA AFL
- SAP HANA LCApps
- SAP HANA lifecycle manager
- SAP HANA RDL
- SAP HANA INA Toolkit HTML
- SAP HANA EPM Service
- SAP HANA Demo Modell
- SAP HANA smart data access
- SAP HANA HW Configuration Check Tool

1.1.1 Prepare file system for the default usage

Your HANA server is already delivered pre-installed including the file system.
However, the following short example can be used to create an easy file system, e.g. for a test installation.

```
cd /data
mkdir –p sap/HDB
chmod –R 777 sap/HDB
ln -s /data/sap /usr/sap/HDB
ln -s /data/sap /sapmnt/HDB
```

1.1.2 Starting/Stopping SAP HANA and sapstartsrv

```
cd /usr/sap/HDB/HDB01/

HDB/HDB01> HDB start/stop/info/version/help

HDB/HDB01> cd /usr/sap/HDB/SYS/exe/hdb/

lt5006: exe/hdb> sapcontrol -nr 01 -prot NI_HTTP -function StopService

lt5006: exe/hdb> sapcontrol -nr 01 -prot NI_HTTP -function RestartService HDB
```

If the owner is not <sid>adm you could just delete the file `.sapstreamXXXX` (as root) and perform a RestartService with the appropriate sapstartsrv. In case the service is killed or the appropriate file .sapstreamXXXX is missing you can restart the sapservice daemon with:

```
lt5006:HDB:hdbadm /usr/sap/HDB/> sapstartsrv pf=<instance-profile> -D
```

What also work is to kill the old/new sapstartsrv processes and start again with `sapstart r3`

```
lt5006:ciaadm 76> ps -ef | grep sapstart

ciaadm    8990    1  0  2013 ?        00:29:42
/usr/sap/CIA/ASCS03/exe/sapstartsrv
pf=/usr/sap/CIA/SYS/profile/CIA_ASCS03_lt5006 -D

ciaadm    9185    1  0  2013 ?        00:33:13
/usr/sap/CIA/DVEBMGS02/exe/sapstartsrv
pf=/usr/sap/CIA/SYS/profile/CIA_DVEBMGS02_lt5006 –D

ciaadm   50297    1  0 14:43 ?        00:00:00
/usr/sap/CIA/ASCS03/exe/sapstartsrv
pf=/usr/sap/CIA/SYS/profile/CIA_ASCS03_lt5006 -D -u ciaadm

ciaadm   50483    1  0 14:43 ?        00:00:01
/usr/sap/CIA/DVEBMGS02/exe/sapstartsrv
pf=/usr/sap/CIA/SYS/profile/CIA_DVEBMGS02_lt5006 -D -u ciaadm

lt5006:/tmp # kill -9 8990 9185 50297 50483
```

Then the above commands will work again. This also works for the connected SAP Instances.

A detailed Guide for sapstartsrv is attached here - Note 1839725 - LM-SERVICE 7.10 SP08 patch 1

1.1.3 Adapt the file .sapenv.csh for the user <sid>adm

⚠ Check/Add the line source `./HDBSettings.csh` into the `.sapenv.csh` environment of `<sid>adm` after the run of the unified Installer. Furthermore adapt the `.sapenv.csh` with the correct time zone for SAP NetWeaver (CET instead of UTC).

```
# This is the SAP Environment
#set TZ to UTC, see SAP Note 1551454
setenv TZ=CET
setenv LD_LIBRARY_PATH
setenv SAPSYSTEMNAME HDB
alias hostname 'hostname -s'
alias pd 'pushd'
alias pop 'popd'
alias dir 'ls -l'
alias l 'ls -abxCF'
alias h 'history'
alias Pwd '/bin/pwd'
setenv DIR_LIBRARY /usr/sap/HDB/SYS/exe/run
setenv LD_LIBRARY_PATH /usr/sap/HDB/SYS/exe/run
setenv PATH /usr/sap/HDB/SYS/exe/run:${PATH}
alias cdpro 'cd /usr/sap/HDB/SYS/profile'
alias cdexe 'cd /usr/sap/HDB/SYS/exe/run'
alias cdglo 'cd /usr/sap/HDB/SYS/global'
setenv PATH ${PATH}:/usr/sap/tools/bin
source ./HDBSettings.csh
```

💡 You (as administrator) need to configure the file systems `/hana/shared/`, `/hana/shared/data` and `/hana/shared/log`, so that they are present and mounted on all hosts, including the primary host. This is a prerequisite to run SAP HANA unified installer. If they are not, you will not be able to continue with the installation.

💡 Also keep in mind that the secure connection confirmation (done via RSA key fingerprint) is automatically accepted for all hosts in the distributed landscape.

1.1.4 Check the time zones on the HANA server

⚠ After the installation of the SAP HANA database with/without the unified Installer it can happen that there are time differences between the HANA box and the Application Server. This problem will occur in customer environments.

⬆ To solve the issue either change the time on the SAP HANA box and restart the server before you start the SAP installation, otherwise you will have problems during the third installation step of sapinst when creating the central instance

1.1.5 Check UUIID libraries on Linux based AppServers

⬆️ If you are using a 7.20 Ext-Kernel higher than 111 the update and usage of UUIID is mandatory. Please check the correct function before you start the installation on Linux and RedHat based application servers

Note 1391070 - Linux UUID solutions

- RHEL 5, RHEL 6, OL 5, and OL 6: In order to activate the UUID daemon you need to install the uuidd RPM package. Additionally, it is required run the command 'chmod 6755 /usr/sbin/uuidd' as root in order to activate the UUID daemon on-demand. (Alternatively, running the UUID daemon permanently with 'service uuidd start', respective 'chkconfig uuidd on' is also possible.)

- SLES 11 SP1: You simply need to install the sapconf RPM package (this is necessary for SAP installations anyhow). The package sapconf incorporates the dependencies to uuid-runtime and performs the README.SUSE.uuidd instructions above automatically. The sapconf package is already installed if you install SLES 11 SP1 as described in note 1310037.

- SLES 11 SP2: With SLES 11 SP2 no further uuidd activation is needed. The sapconf is not needed for uuidd purposes, but still recommended for something different (refer note 1310037).

Additional hints:
- Note 1054467 - Local host name refers to loopback address
- Check for the correct format of the file /etc/hosts
- Check for duplicated entries in the file /etc/services
- http://www.sdn.sap.com/irj/sdn/edw-ops?rid=/library/uuid/5005c6c3-364b-2b10-fea9-c476d0885458
- unalias cp

1.2 Install the HANA lifecycle management

Check the Guide first - http://help.sap.com/hana/SAP_HANA_Update_and_Configuration_Guide_en.pdf

Download the components and run the command as follows with the `root` user from a temporary directory where you unpack the `SAPHANALM07_12-10012745.SAR` file.
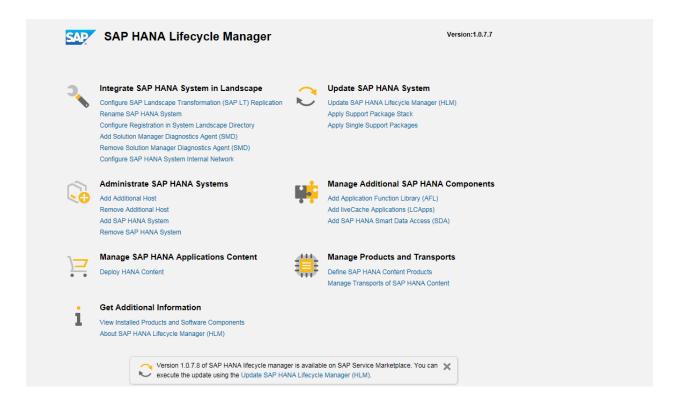
```
lt5006: data/software/HLM>./hdbinst
--hlm_archive=/data/software/HANA/SAPHANALM07_12-10012745.SAR
--host_agent_package=/data/software/HANA/SAPHOSTAGENT190_190-20005731.SAR -s HDB
```

Please Note that the HLM "hdbinst" is a different version, that the current delivered hdbinst. So you must use the one from the extracted HLM directory.
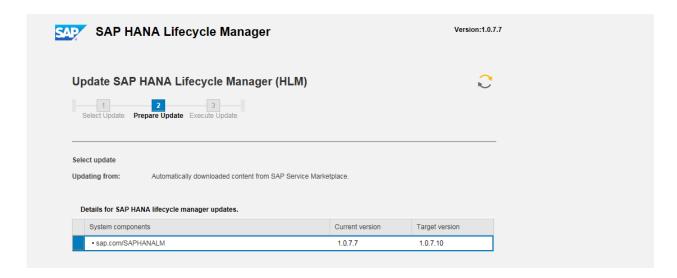
1.3 Usage of the HLM via SAP HANA studio

The easiest way to use the HLM is via the SAP HANA studio. The HLM installation guide describes two other possibilities for the usage of the HLM UI.
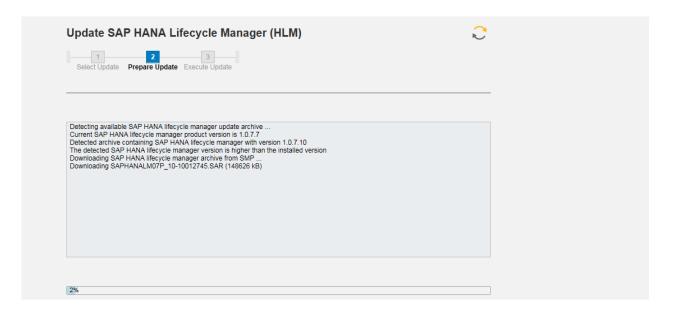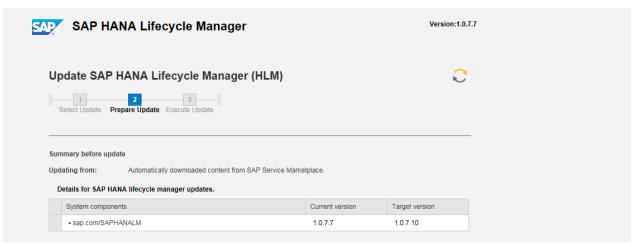
1.4 Update the HLM via SAP HANA studio
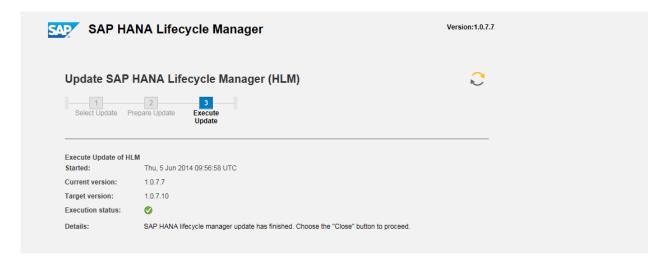
Updating the HLM via the SAP HANA studio is a straight forward task. Proceed as stated on the screen.

Update SAP HANA Lifecycle Manager (HLM)

1	2	3
Select Update	**Prepare Update**	Execute Update

Detecting available SAP HANA lifecycle manager update archive ...
Current SAP HANA lifecycle manager product version is 1.0.7.7
Detected archive containing SAP HANA lifecycle manager with version 1.0.7.10
The detected SAP HANA lifecycle manager version is higher than the installed version
Downloading SAP HANA lifecycle manager archive from SMP ...
Downloading SAPHANALM07P_10-10012745.SAR (148626 kB)

2%

SAP HANA Lifecycle Manager   Version:1.0.7.7

Update SAP HANA Lifecycle Manager (HLM)

1	2	3
Select Update	**Prepare Update**	Execute Update

Summary before update

Updating from: Automatically downloaded content from SAP Service Marketplace.

Details for SAP HANA lifecycle manager updates.

System components	Current version	Target version
▪ sap.com/SAPHANALM	1.0.7.7	1.0.7.10

SAP HANA Lifecycle Manager   Version:1.0.7.7

Update SAP HANA Lifecycle Manager (HLM)

1	2	3
Select Update	Prepare Update	**Execute Update**

Execute Update of HLM

Started:	Thu, 5 Jun 2014 09:56:58 UTC
Current version:	1.0.7.7
Target version:	1.0.7.10
Execution status:	✅
Details:	SAP HANA lifecycle manager update has finished. Choose the "Close" button to proceed.

You can also update single components or a complete support package stack, SDA and AFL´s.
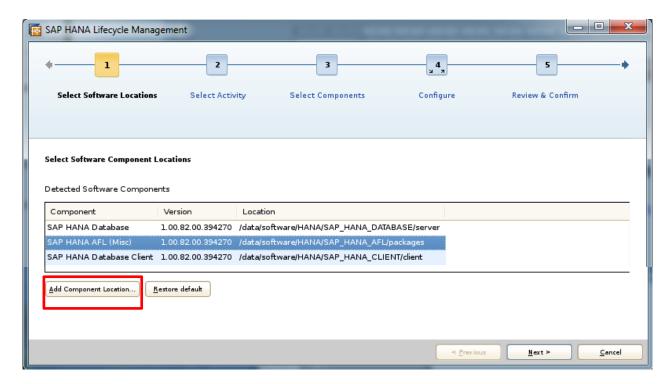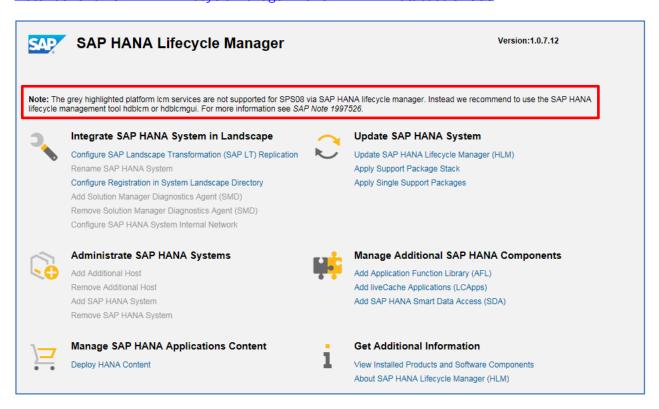
1.5 Using the hdblcmgui with HANA SP08

Installation Documentation - http://help.sap.com/hana_platform#section2

Start the GUI from the location **/data/software/HANA/SAP_HANA_DATABASE # ./hdblcmgui**

Note 1997526 - SAP HANA lifecycle manager with SAP HANA Database SPS08
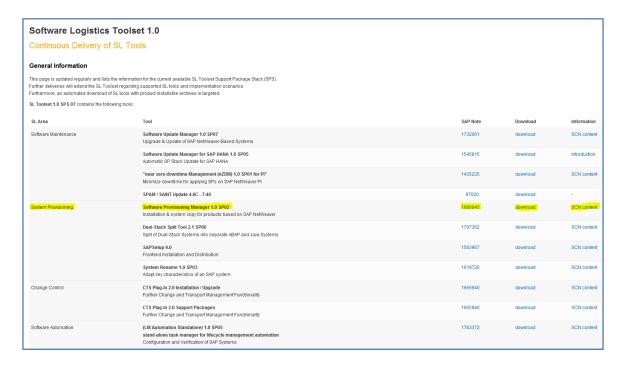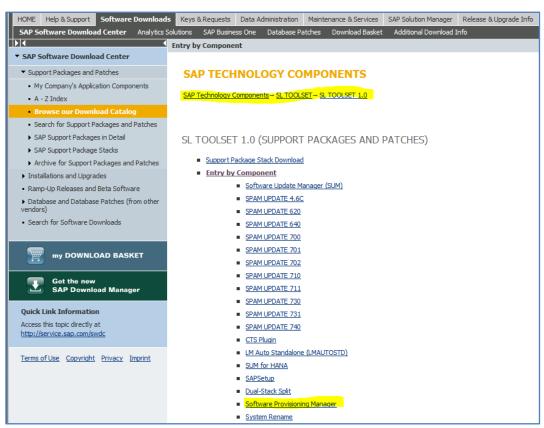
1.6 Preparing the heterogeneous Export with SWPM

Get Familiar with the new capabilities of the SL toolset – http://service.sap.com/sltoolset

For all NetWeaver based Installations and Upgrades the existing sapinst or sapup Packages which are available with the Installation DVD´s are replaced by regularly updated (at least once a Quarter) Packages located at http://services.sap.com/patches
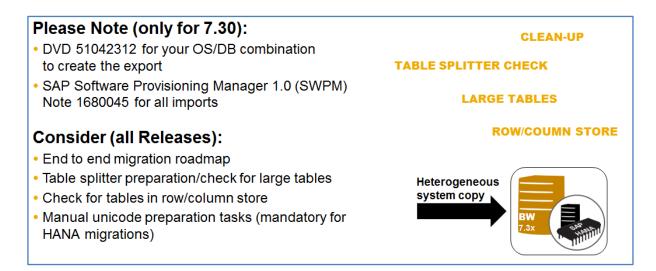
1.6.1 Necessary Pre Steps (Application Specific)

If you plan to start an Export directly on the Source System the following Pre Steps should be sufficient to prepare the source system.

If you plan the usage of the Post Copy Automation (BW-PCA) refer to the following Information provided in the updated TechEd Presentation EIM300 - https://scn.sap.com/docs/DOC-40059
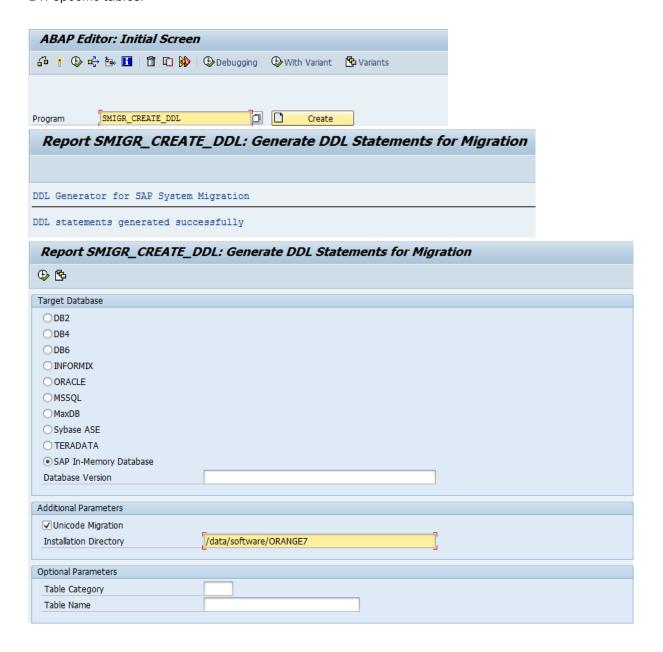
Note 1815547 - Row/ColumnStore Check ohne rowstorelist.txt must be applied before the export starts.

1.6.2 Run SMIGR_CREATE_DDL

This Task is always necessary when you plan the Export a BW based system, as this report creates the BW specific tables.

ABAP Editor: Initial Screen

Program   SMIGR_CREATE_DDL   Create

Report SMIGR_CREATE_DDL: Generate DDL Statements for Migration

DDL Generator for SAP System Migration

DDL statements generated successfully

Report SMIGR_CREATE_DDL: Generate DDL Statements for Migration

Target Database
- ○ DB2
- ○ DB4
- ○ DB6
- ○ INFORMIX
- ○ ORACLE
- ○ MSSQL
- ○ MaxDB
- ○ Sybase ASE
- ○ TERADATA
- ◉ SAP In-Memory Database
- Database Version

Additional Parameters
- ☑ Unicode Migration
- Installation Directory   /data/software/ORANGE7

Optional Parameters
- Table Category
- Table Name

Check the existence of the files after its creation. Please note that the SWPM later will pick up the files and puts it into the right location. Don´t move them manually into the final destination folder.
`/<location>/ABAP/DB/HDB`

```
lt5006:~ # cd /data/software/ORANGE7
lt5006:/data/software/ORANGE7 # dir
drwxrwxr-x 4 ciaadm sapsys     4096 Jan 29 12:52 ABAP
-rw-rw---- 1 ciaadm sapsys    11557 Jan 25 21:54 APPL1.SQL
-rw-rw---- 1 ciaadm sapsys  3213987 Jan 25 21:54 DFACT.SQL
-rw-rw---- 1 ciaadm sapsys 21138171 Jan 25 21:55 DODS.SQL
-rw-rw-r-- 1 root   sapinst        5 Jan 29 12:52 LABELIDX.ASC
-rw-rw---- 1 ciaadm sapsys      111 Jan 25 21:55 SQLFiles.LST
lt5006:/data/software/ORANGE7 #
```

1.7   Run the software provisioning manager (SWPM)

The current Software Provisioning Manager (SWPM) supports the heterogeneous System Export from AnyDB to HANA and the Import to HANA as well. No other Installation Medium is necessary anymore.

The Media can be found as stated in Chapter 1.2, the remaining Software DVD´s in the Installation Area of the Service Market Place.

SAP NETWEAVER AND COMPLEMENTARY PRODUCTS

- **SAP NetWeaver**
- **SAP HANA**
- **SAP NetWeaver BW 7.3 powered by SAP HANA**

1.7.1 Run the Export Preparation with SWPM

This Chapter is now integrated in this Document.

- http://help.sap.com/nw73bwhana | http://help.sap.com/nw74 | http://help.sap.com/nw731
- Note 1617021 - Inst. SAP NetWeaver 7.3: Windows / SAP HANA Database
- Note 1617020 - Inst. SAP NetWeaver 7.3: UNIX / SAP HANA Database
- Note 1715048 - Migration nach SAP HANA Database

Specify the TMP/TEMP space Bourne shell (sh)

TEMP=/usr/sap/tmp; export TEMP

TMP=/usr/sap/tmp; export TMP

If you are using a virtual hostname for you Application Server, you have to start the sapinst with the option:

```
./sapinst SAPINST_USE_HOSTNAME=<virtual-servername> –nogui
```

Location of the Installation log:
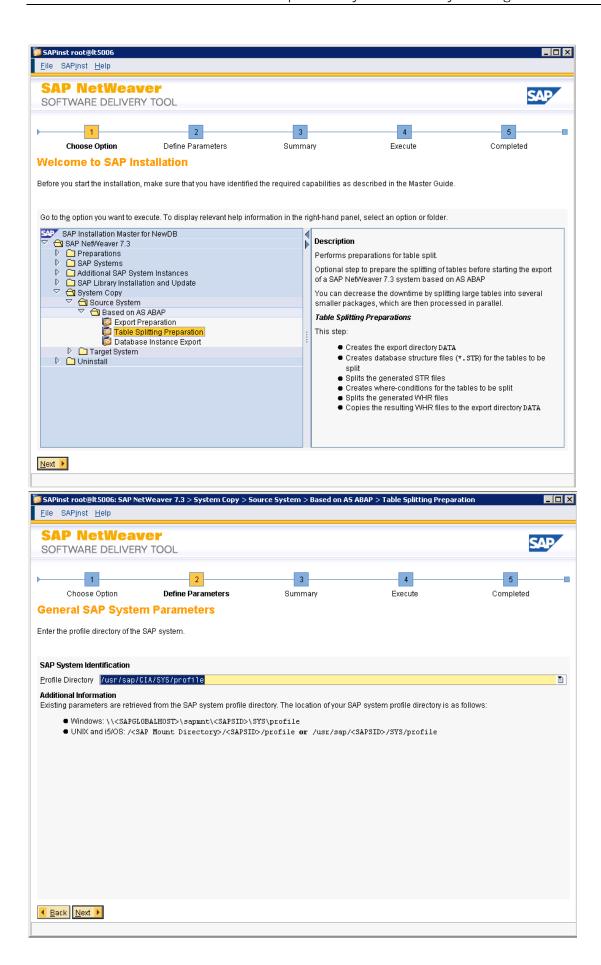
```
/tmp/sapinst_instdir/NW73/HDB/COPY/EXP/AS-ABAP/PRETABSPLIT
```

RECAB: This option allows you to run the sapinstgui on your Fronted-PC without using the X-Windows Implementation, or tools like VNC viewer are not available
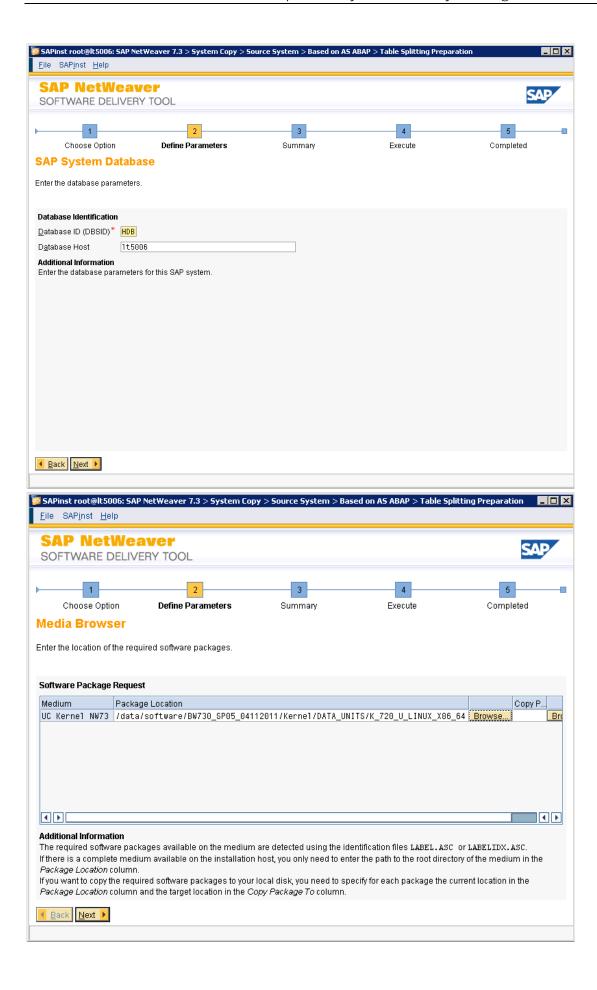
```
/data/software/BW730_SP05/Install/DATA_UNITS/BW730_IM_LINUX_X86_64_HDB
```
./sapinst –nogui

```
D:\_install\BW730_SP05\Install\DATA_UNITS\NW730_IM_SAPINSTGUI_WIN_I386
```
sapinstgui.exe -host lt5006.wdf.sap.corp -port 21212
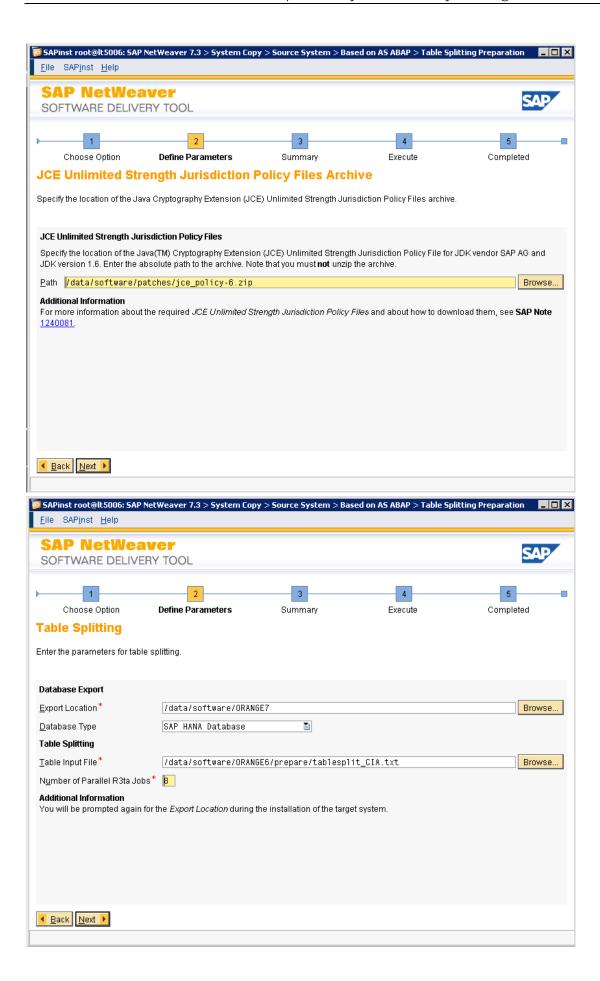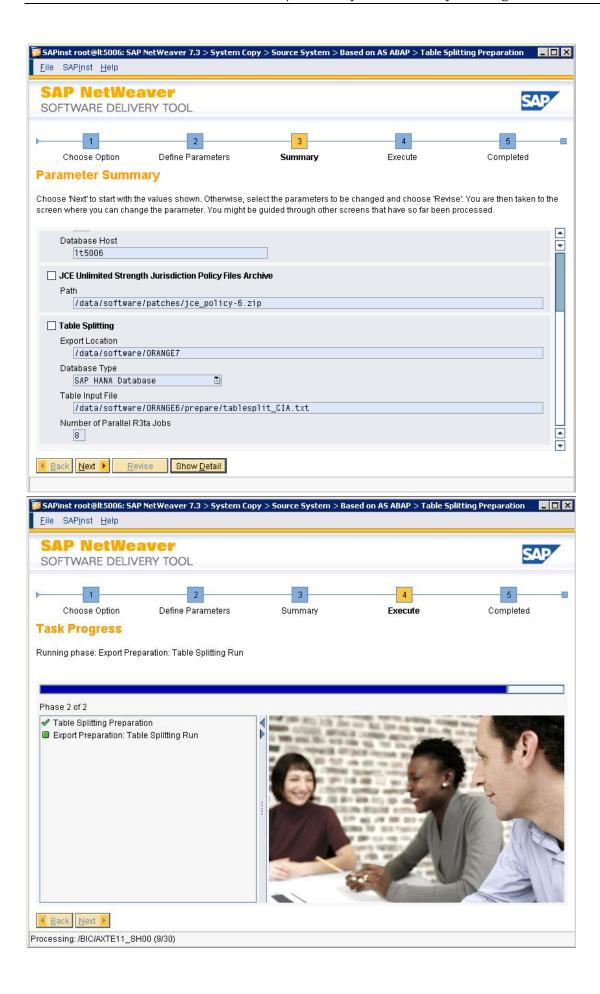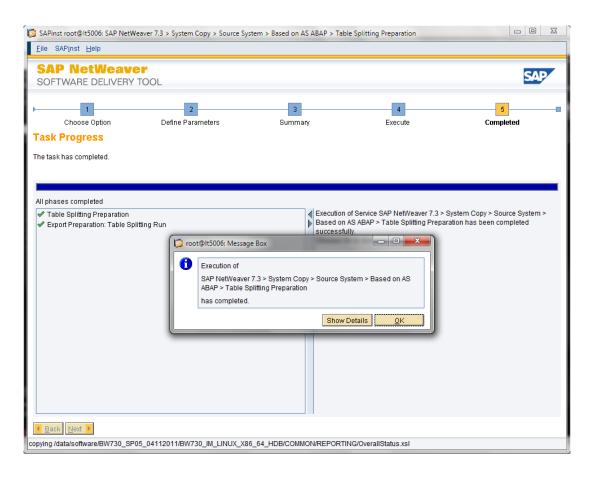
Check the availability of the created files in the export directory `/<export-dir>/ABAP/DATA`

And the file `whr.txt`

1.7.2 Run the Export with SWPM
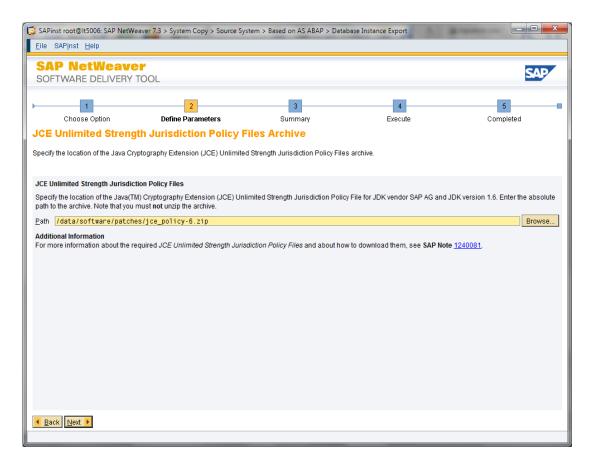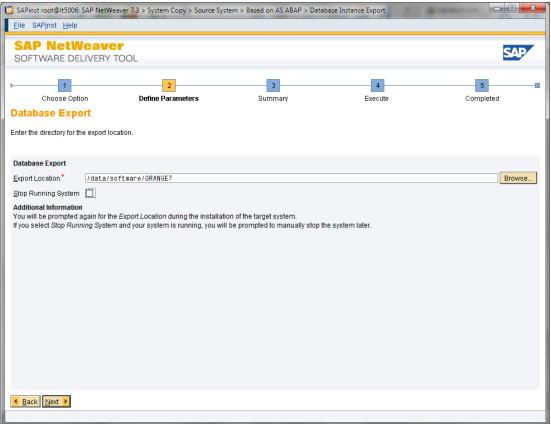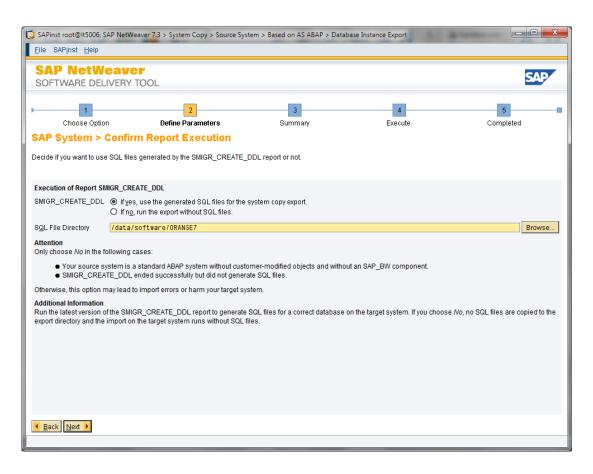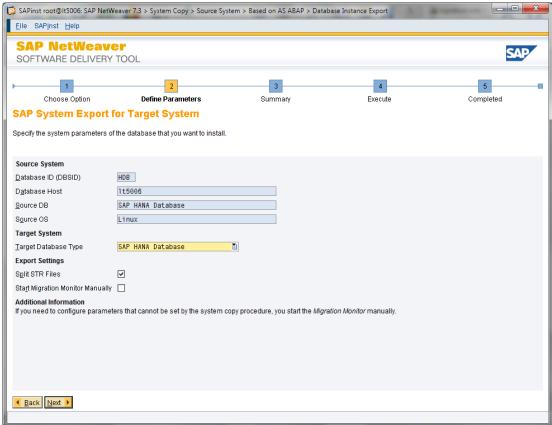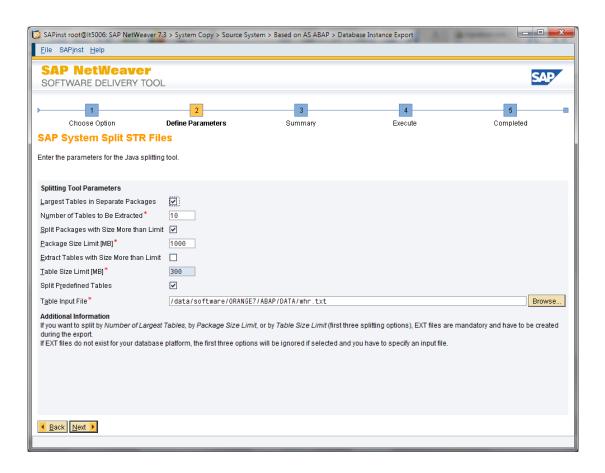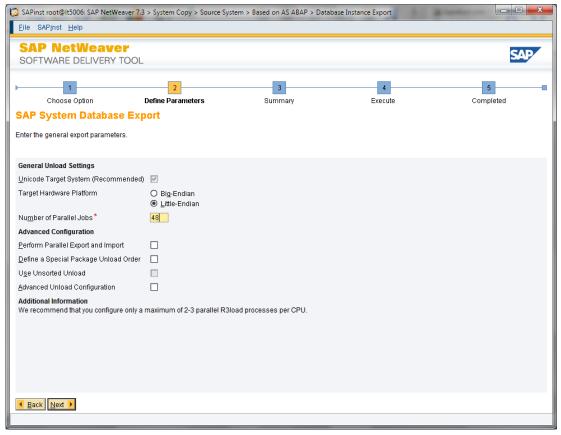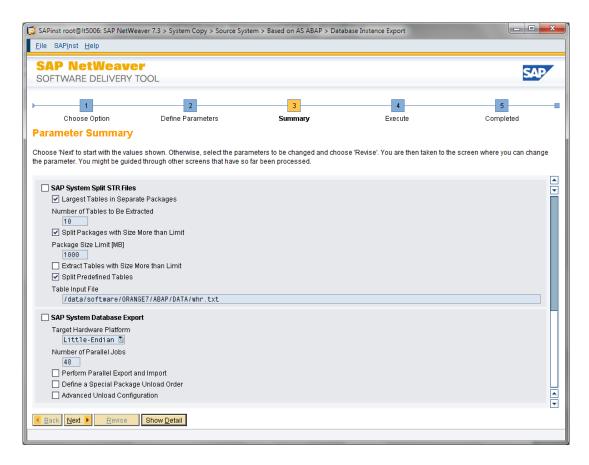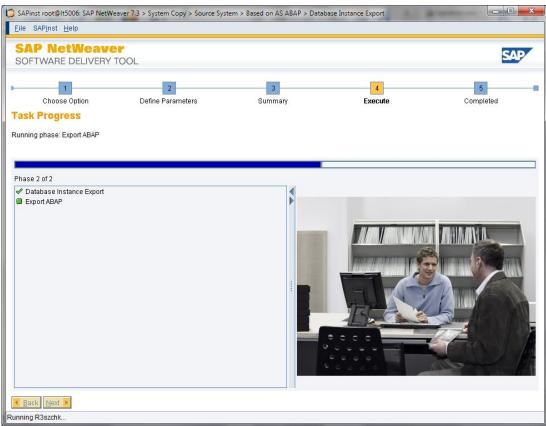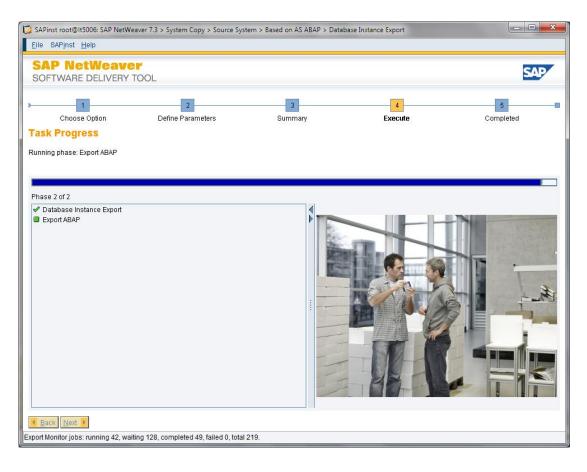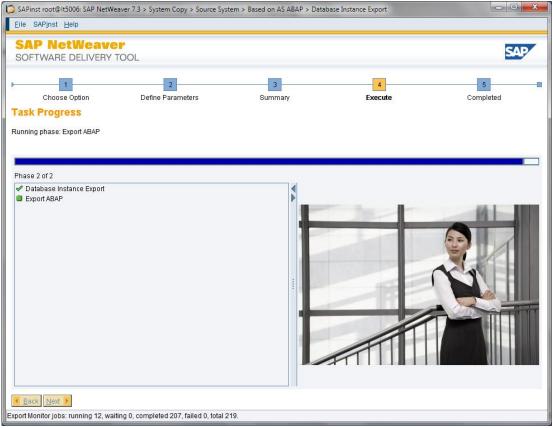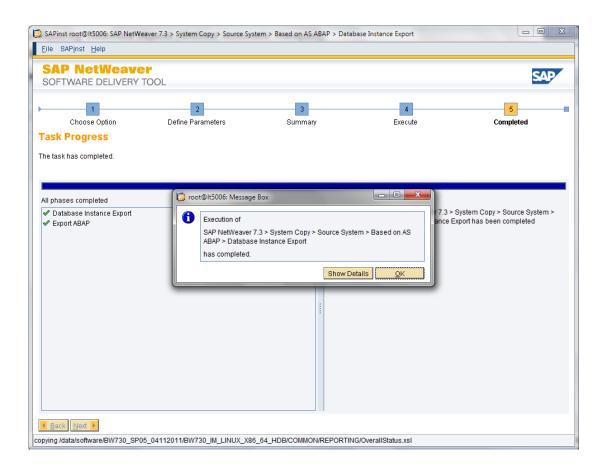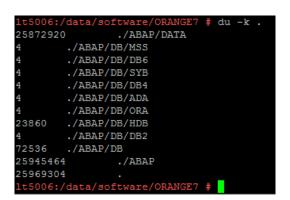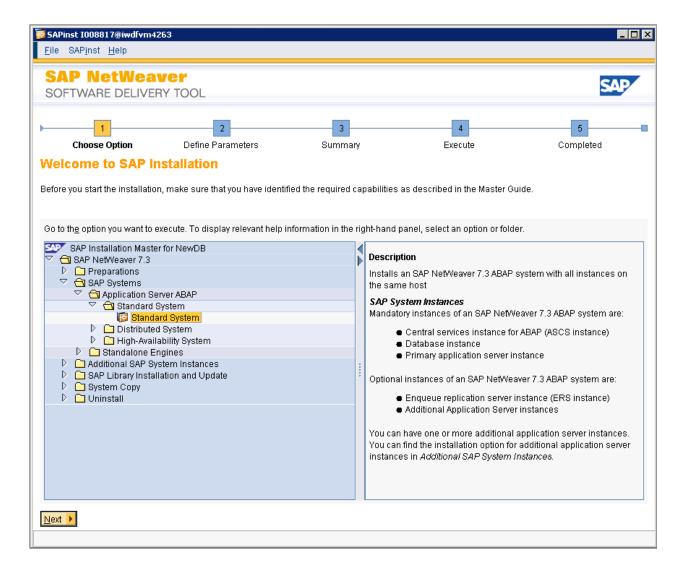
1.8 Starting the import with SWPM

The usage of the SAP export for a new installation leads to the same technical steps.

This process is described in the following document: http://scn.sap.com/docs/DOC-12262

- The reading SAP NetWeaver BW powered by HANA 1.0 e2e Guide
  http://help.sap.com/nw73bwhana#section2 is mandatory.
- Note 1617021 - Inst. SAP NetWeaver 7.3: Windows / SAP HANA Database
- Note 1617020 - Inst. SAP NetWeaver 7.3: UNIX / SAP HANA Database
- Note 1715048 - BW 7.30 on distributed SAP HANA database
- Note 1819123 - SAP HANA landscape reorg (at least Rev. 52 for HANA needed, current Rev. 63)
- Note 1891393 - Automated Configuration scripts for HANA Landscape (contains HDB script for reorg)

If you are running a standard SAP NetWeaver BW on SAP HANA system installation (either system import or new installation) you can choose the "Standard System" option in the sapinst dialog. The remote database (SAP HANA appliance) can be chosen later as separate server.

If you are using a virtual hostname for your application server, start the sapinst with the option:
`./sapinst SAPINST_USE_HOSTNAME=<virtual-servername> –nogui`

The option **–nogui** can be used, when a UNIX based AppServer is used, and an X-Windows support is not available, or the Win64 sapinst will be used.

Since the availability of the software provisioning manager 1.0 (SWPM) with the SL toolset 1.0 SP04 and higher you can replace the original sapinst Installers from the BW on HANA medias for 7.30 and 7.31 with this versions. As a recommendation see also the following matrix:

Option	Export	Import
Homogeneous	Use 7.30/7.31 sapinst Use SWPM 1.0 (≥SP04)	Use SWPM 1.0 (≥SP04)
Heterogeneous	Use 7.30/7.31 sapinst with target MaxDB Use SWPM 1.0 (≥SP04)	Use SWPM 1.0 (≥SP04)
Fresh Install	n/a	Use SWPM 1.0 (≥SP04)

The Software Provisioning Manger 1.0 (SWPM) should be used to install NetWeaver based System from 7.30 onwards (despite system exports or fresh installs). So you can ensure that you always use the latest available Installation tool.

See Details here -
http://service.sap.com/~form/sapnet?_SHORTKEY=01100035870000737068&_OBJECT=011000358700000828172012E
Software Provisioning Manager 1.0: Installation & Systemcopy for products based on SAP NetWeaver 7.3 & 7.31 (SAP Note 1680045)

All mentioned details/options for sapinst are also working with the software provisioning manager.

1.8.1 IM master on the backend (Linux)

```
/data/software/BW730_SP05_04112011/BW730_IM_LINUX_X86_64_HDB
./sapinst –nogui
```

This option allows you to run the sapinstgui on your fronted-PC without using the X-Windows implementation, or tools like VNC viewer are not available.

Of course you can use Putty (0.61) with the Xming Extension. For details how to use it, visit the URL http://www.straightrunning.com/XmingNotes/

Tip: Don't switch the user context when using Xming, this will also loses the DISPLAY variable.
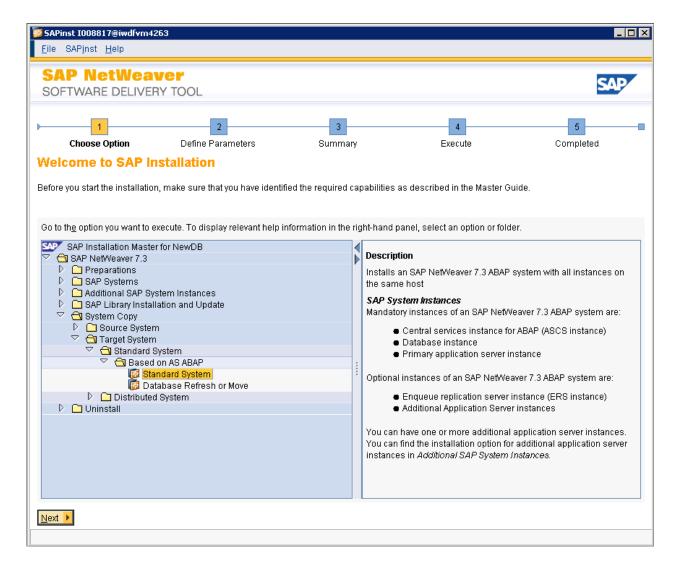
The option **SAPINST_SET_STEPSTATE=true** allows you replace R3load and LibDBSL later during the installation process before the import starts. Follow the additional steps in Note 1715048.

1.8.2 SWPM GUI on the windows frontend

```
D:\_install\ORANGE\BW730_SP05_04112011\NW730_IM_SAPINSTGUI_WIN_I386
sapinstgui.exe -host lt5006.wdf.sap.corp -port 21212
```

This is the option for the installation of the created system export.
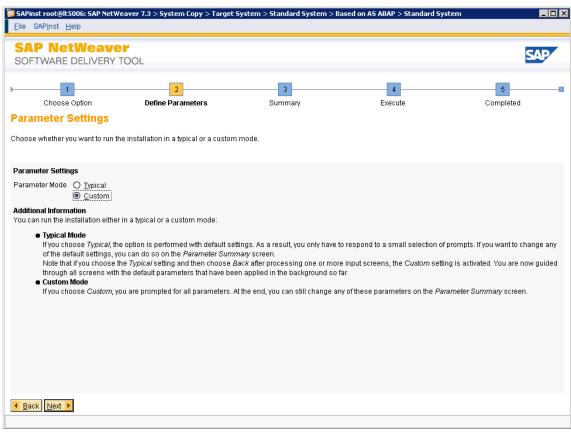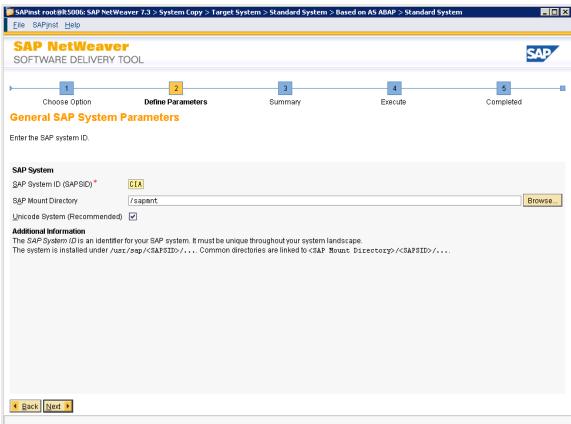
1.8.3 Default location of the SWPM log directory

UNIX: `/tmp/sapinst_instdir/NW73/HDB/COPY/HDB/SYSTEM/STD/AS-ABAP`
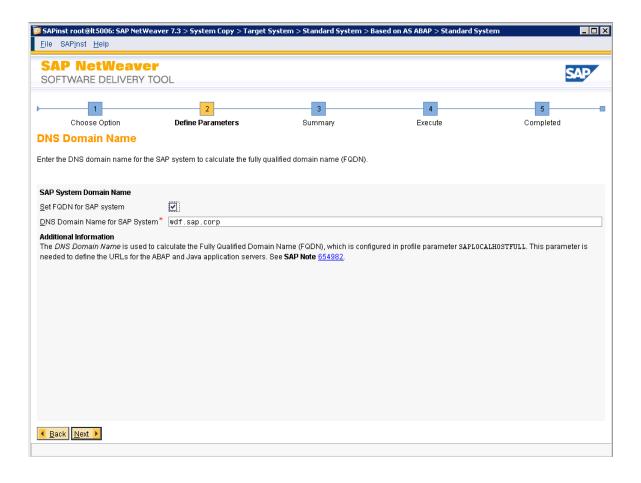
WIN64: `<drive>:\Program Files\sapinst_instdir\NW73\INSTALL\NW73\HDB\STD\AS-ABAP`

1.8.4 FQDN must be provided

Please note: a working FQDN is a pre-requisite for the NetWeaver 7.30 installation (despite SAP HANA or anyDB). Several system parameters are set during the installation, to guarantee a working system. Ignoring the setting will lead into system inconsistencies.
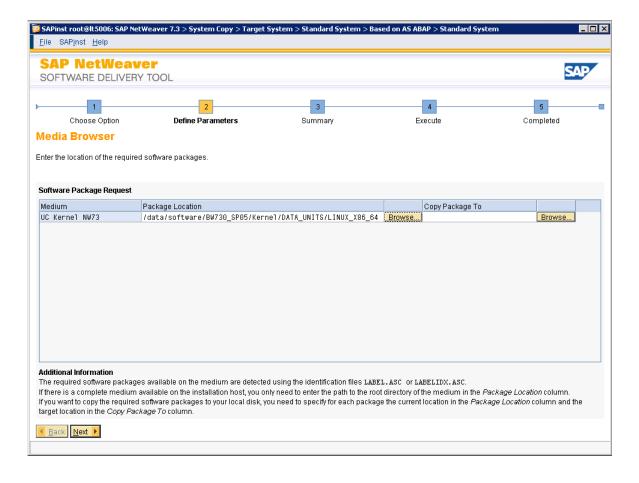
If you cannot afford a FQDN for your application server, create a temporary entry in your `/etc/hosts` file on the SAP HANA server, the application server and the used frontend- PC's like
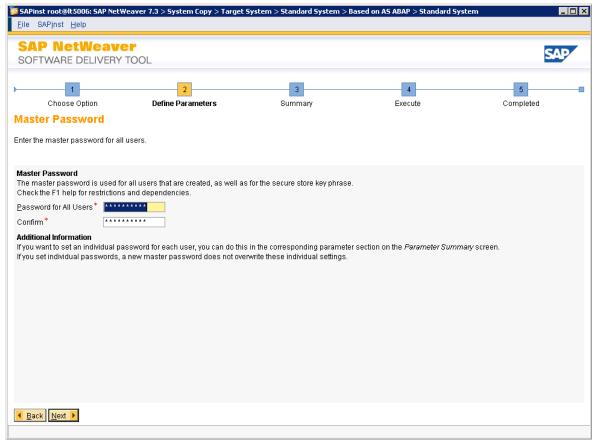
`10.22.40.106   lt5006.wdf.sap.corp    lt5006`

For the time being until the final FQDN name is available. Do not continue here without the flag set.
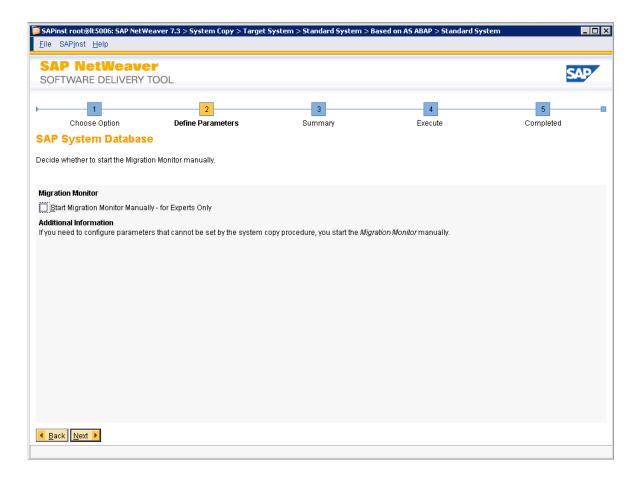
See also note 1496410 for Red Hat Linux.
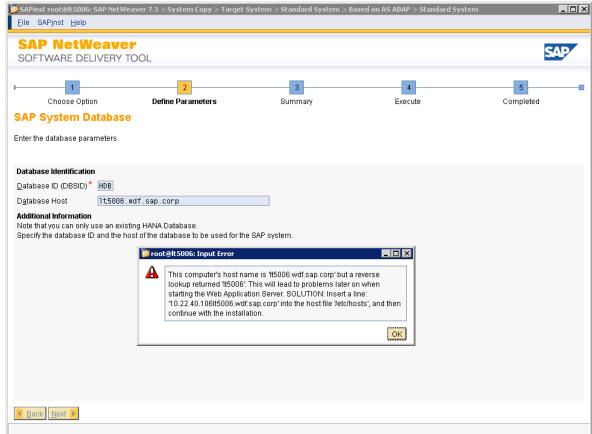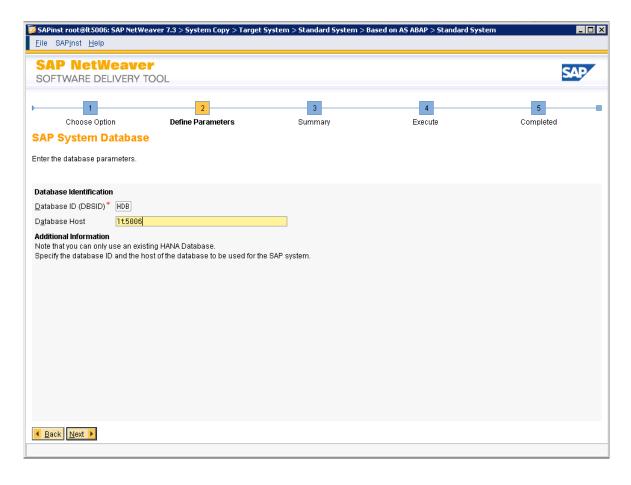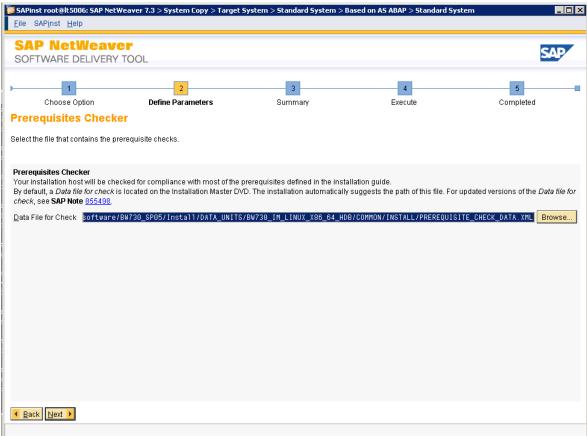
The SAP HANA database host is entered without the FQDN name here, but must be available also for the SAP HANA server as well.
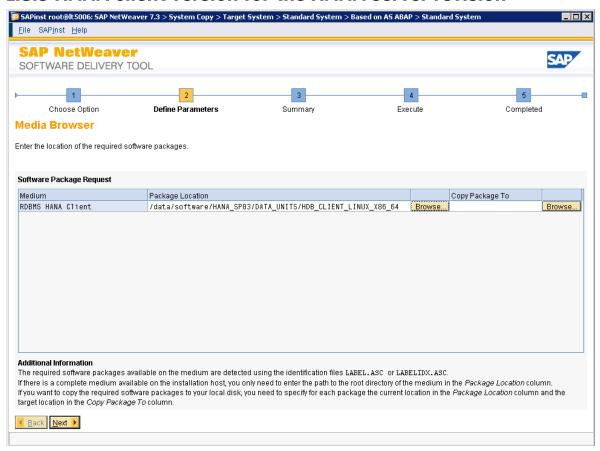
1.8.5 HANA client version for the HANA server revision

For a newer client which fits to the SAP HANA server revision you can/must download the corresponding from the SWDC location.

Note 1825053 - Installation of current SAP HANA client with SWPM

Unpack the archive, for example to /tmp

`SAPCAR –R /tmp –xvf IMDB_CLIENT100_56-10009664.SAR`

Generate the file LABEL.ASC in the directory SAP_HANA_CLIENT.

`echo HDB_CLIENT:10xxx:RDBMS:*:*:* > /tmp/SAP_HANA_CLIENT/LABEL.ASC`

The SWPM recognizes the unpacked software using the file and its contents.

So this procedure becomes obsolete with the suggestion in the Note above.

Currently the client files are located on the SAP HANA 1.0 DVD. You must have the medium available, even the HW partner installed the correct SAP HANA version already in the factory.
(SAP HANA PLATFORM EDIT. 1.0 - Number 51041779)

In the corresponding directory, e.g.
`/software/HANA_SP05_51041779/DATA_UNITS/HDB_CLIENT_LINUX_X86_64` you will find the file `LABEL.ASC`. Unpack the file `IMDB_CLIENT100_23-10009663.SAR` on the server. This will create a directory `SAP_HANA_CLIENT`. Place the file `LABEL.ASC` into this directory and choose the directory, when you will be asking for the RDBMS HANA client.

The other option is to replace the content of the directory
`/software/HANA_SP05_51041779/DATA_UNITS/HDB_CLIENT_LINUX_X86_64` with the content of the directory `SAP_HANA_CLIENT` and select the original source directory from the SAP HANA 1.0 SP05 DVD
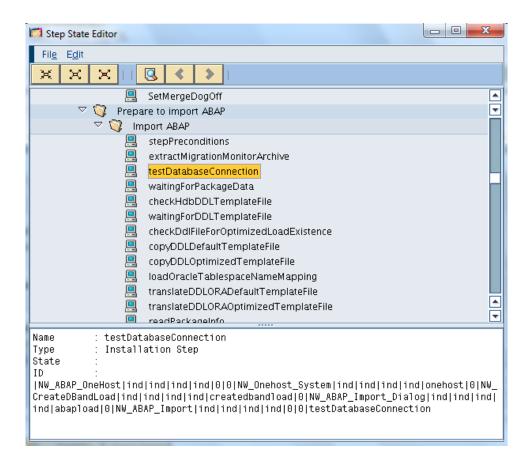
Location on the SAP Service Marketplace (SMP) ➔ http://service.sap.com/patches
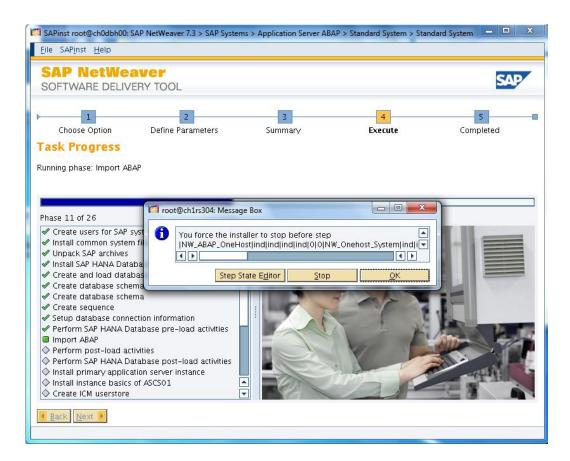
1.8.6 Exchange R3load and LibDBSL before import starts

Unfortunaly the versions of the files R3load and LibDBSL (≥ PL112) are not meeting the requirements for importing the load into SAP HANA 1.0 Rev. 21 and higher. Please exchange the two files in the DIR_CT_RUN directory, before the import starts. The files can be downloaded from Service Market Place, depending on your version of the SAP Application Server (see example for Linux X86_64)

This option is obsolete with the current usage of the SAP Kernel 7.20/7.21 EXT-UC executables
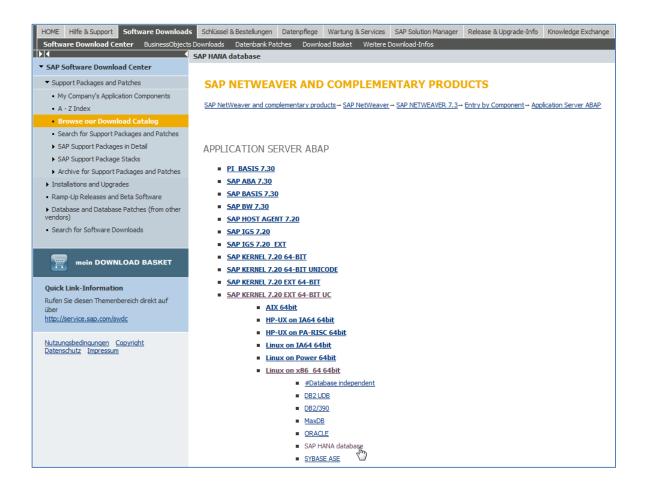
The option **SAPINST_SET_STEPSTATE=true** allows you replace R3load and LibDBSL later during the installation process before the import starts.
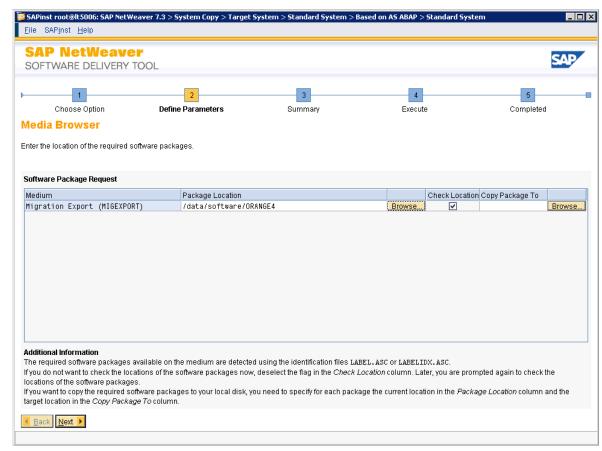
Choose as stop step **"testDatabaseConnection"**, and EXIT (before)


```
DIR_CT_RUN = $(DIR_EXE_ROOT)/$(OS_UNICODE)/linuxx86_64
```

Location on the SAP Service Marketplace (SMP) ➔ http://service.sap.com/patches

(Example for Linux x86 – 64 BIT, other OS combinations can be found here as well)
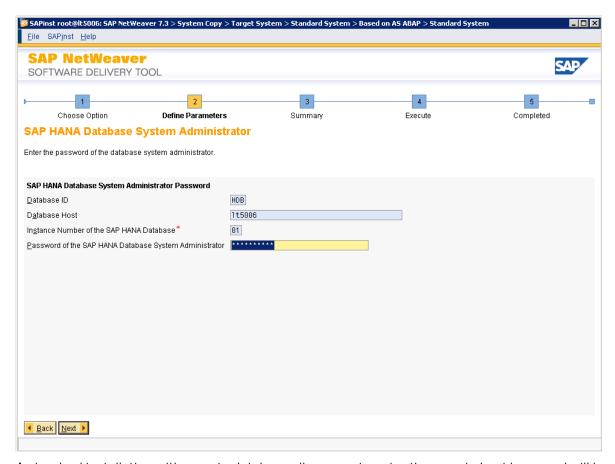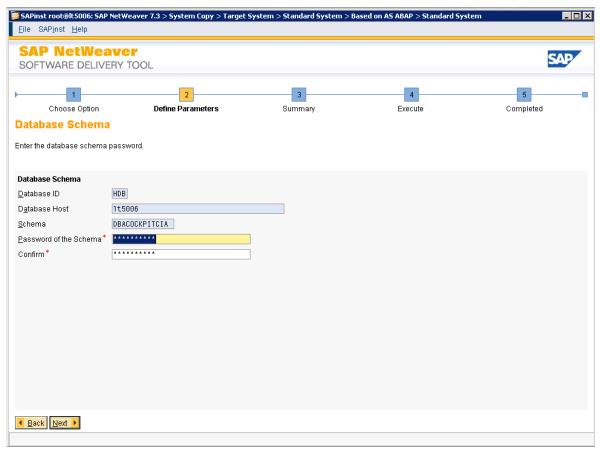
(Example with a manual created Export). With a new installation you choose the standard export here.
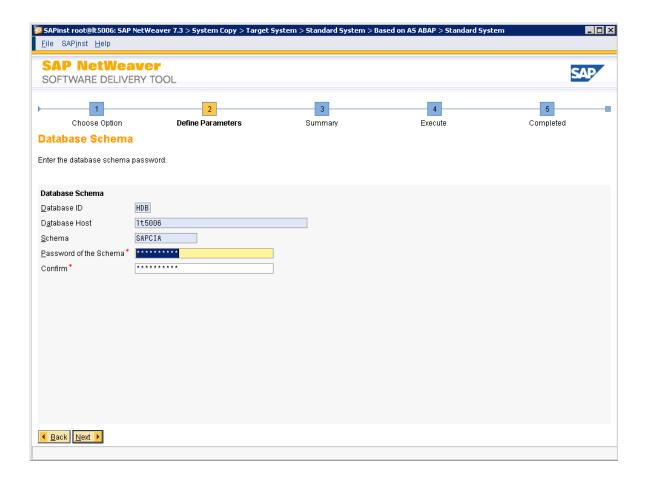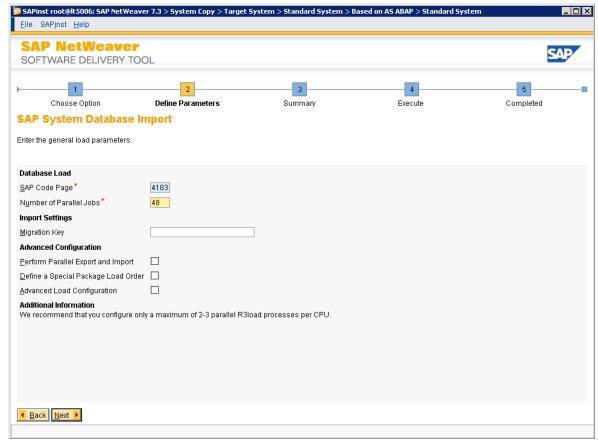
A standard installation with remote database allows you to enter the remote host here, and will lead to the same result as a distributed installation.
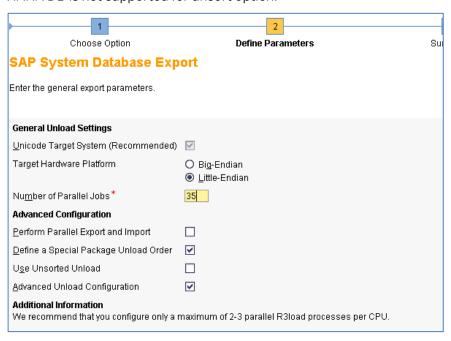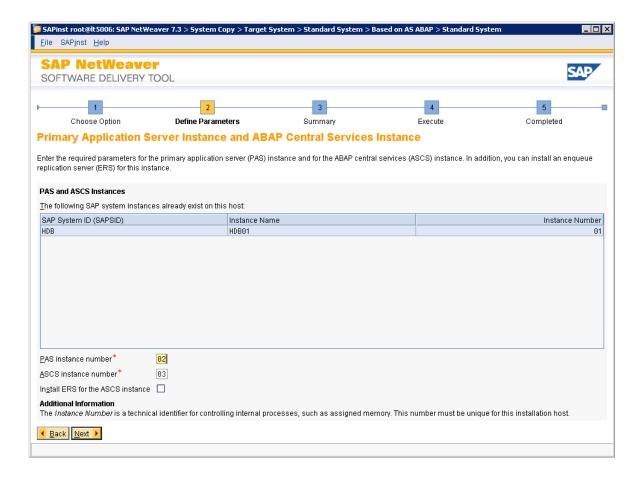
You might want to use the unsorted load order, see note 954268
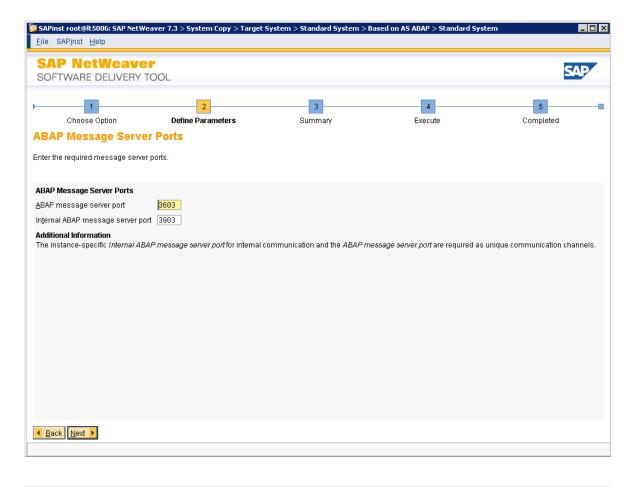
Please note that improvements for Oracle or MS SQL not work for HDB. According to note 936441, SAP HANA DB is not supported for unsort option.
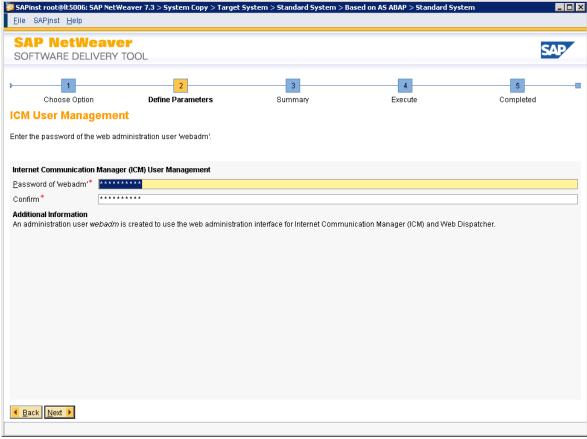
Please Note that the current SWPM incorporate all special Notes for the correct HANA Import, see https://scn.sap.com/docs/DOC-40059 => Page 35-36
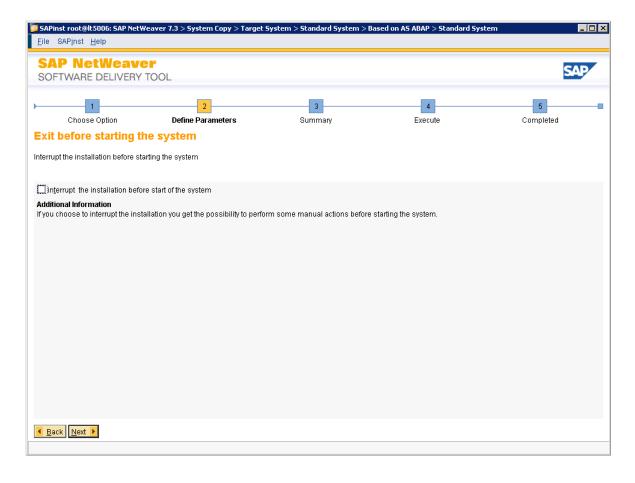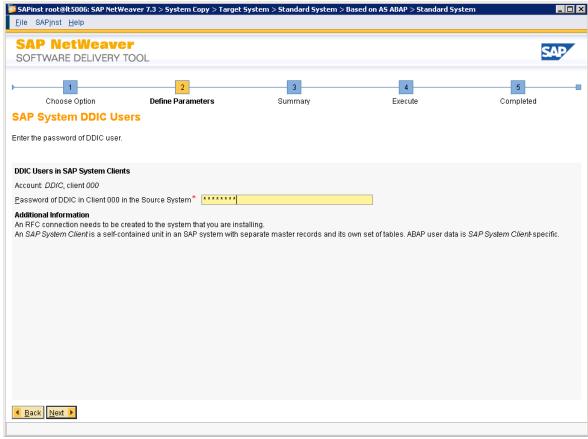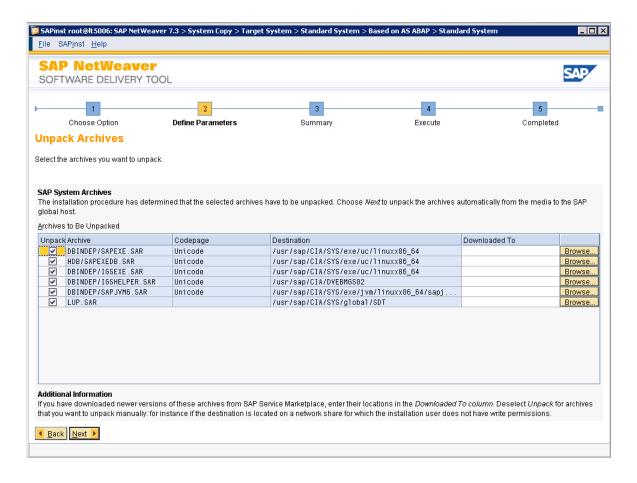
DDIC uses now as well the "Master Password". Check the password before you start an export of a 7.30 system, as you will need this later with the import.
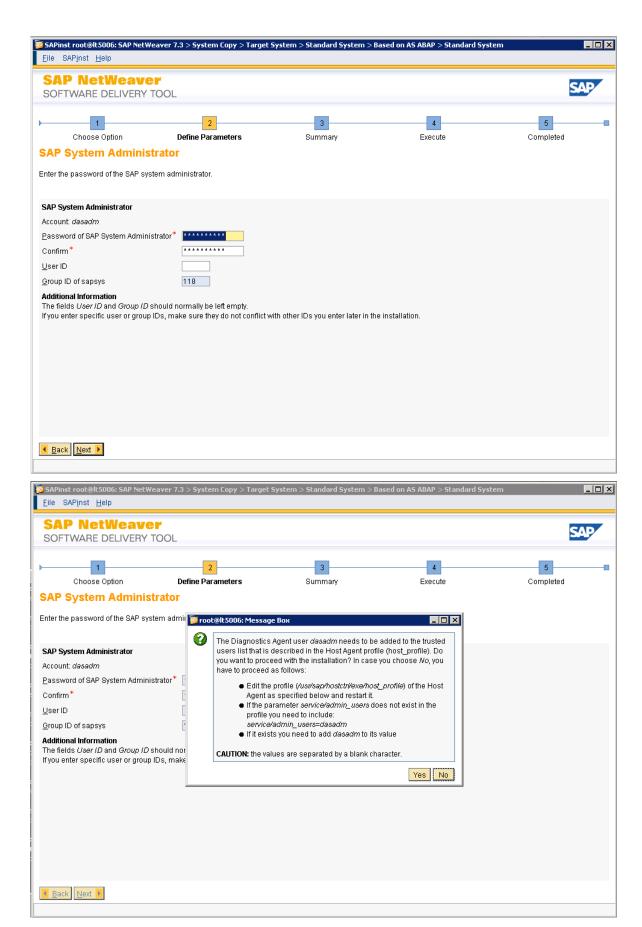
Currently the SAP HANA sapinst will not recognize, if a diagnostic agent is already installed. You will definitely be asked to install a diagnostic agent instance.
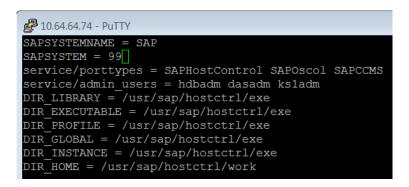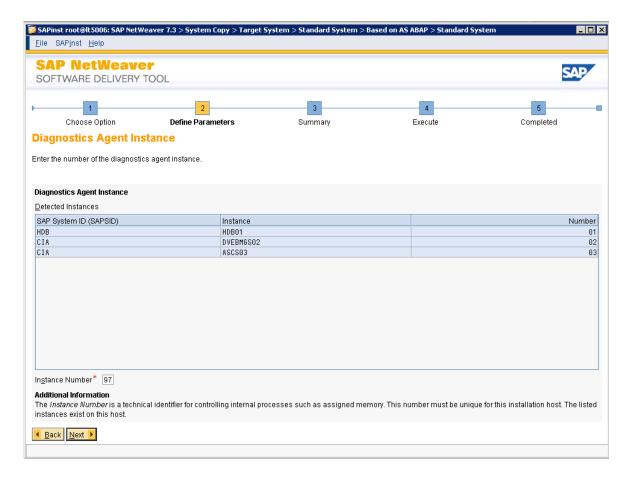
This is a manual step, which can be done at any time. The sapinst dialog can continue here.
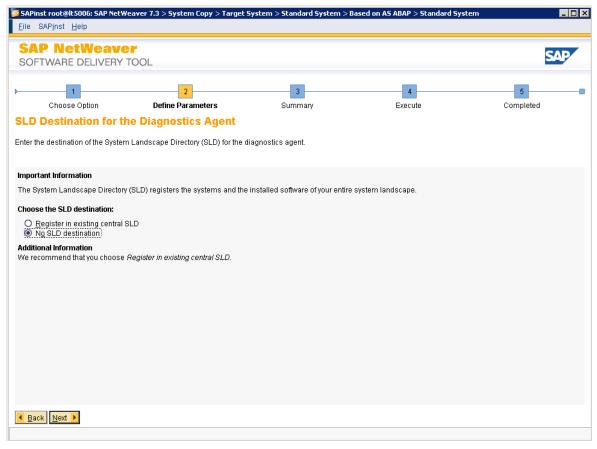
Edit the file `/usr/sap/hostctrl/exe/host_profile` and add the line `service/admin_users`
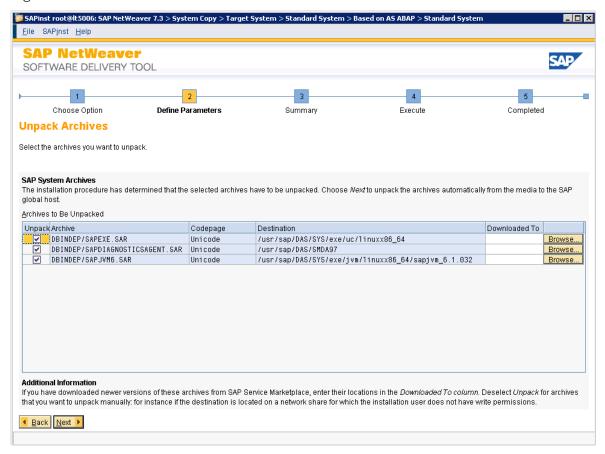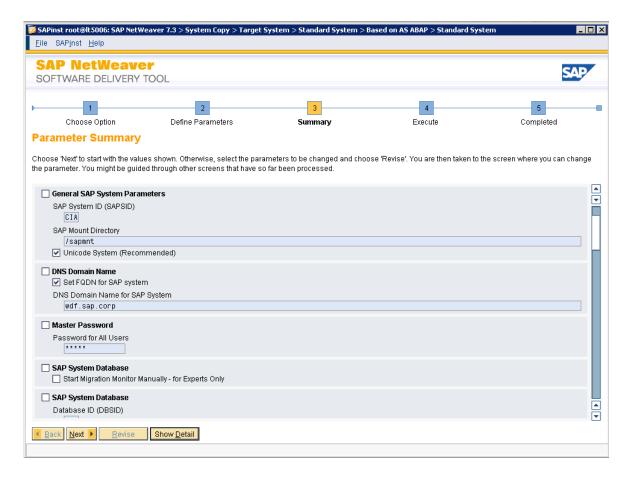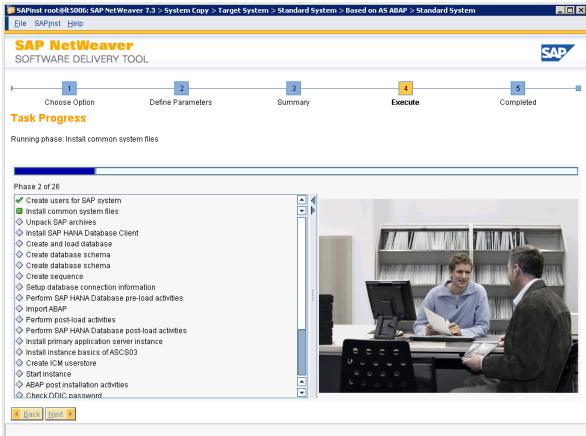
Of course you can directly register the system in an existing SLD server. The SAP HANA appliance will be registered via the SAP HANA unified installer from SP04 onwards.
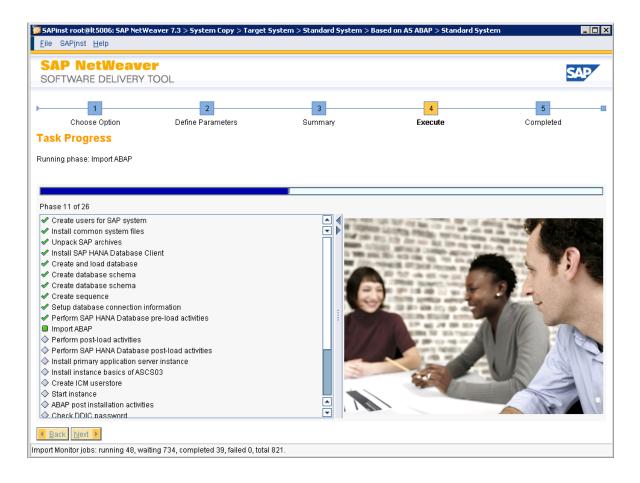
Optional: if you encounter any import problems which are not critical, the quickest approach is to use the guidance of the following note:

Note 885441 - Common Migration Errors

Examples (might differ with you own system export)
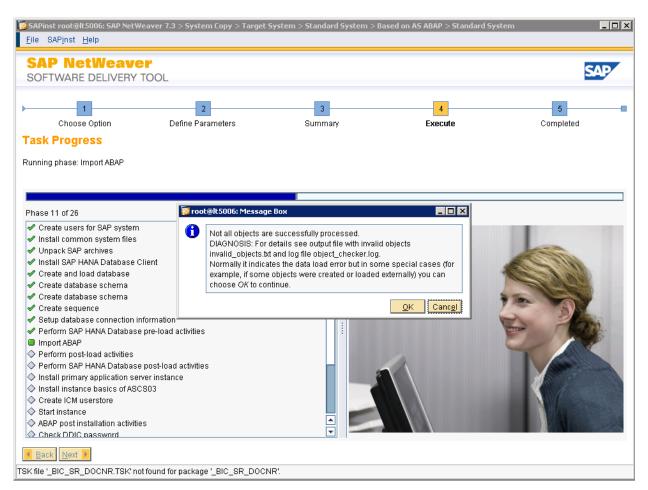
| Error in file SAPAPPL1.TSK | D BTCJSTAT   I ign |
| | I RSDANLREQ~002 C ign |

| Error in ZTZ_EIUSALES4__DTP.TSK | ZTZ_EIUSALES4~P C ign |

Nevertheless you should check the root cause of the problem.

This method is not intend to correct a large amount of table/indexes, therefore you have to check your export source, and if you missed some steps in preparation beforehand, the best approach is to restart the export process, rather than to spend too much time on solving some problems which can be prevented with a correct export source.

Alternatively you might see this screen when you followed note 1715048 for new installations and system copies and activated the option `SAPINST_SET_STEPSTATE=true`

1.8.7 Check invalid_objects.txt

Once the import process is finished, you can check as stated in the SAPInst dialog the file invalid_objects.txt. You might see the same entries (the first ones) different entries or even an empty file

```
lt5006:/tmp/sapinst_instdir/NW73/HDB/COPY/HDB/SYSTEM/STD/AS-ABAP #
more invalid_objects.txt
checkObjects=
dbType=HDB
strDirs=/data/software/ORANGE4/ABAP/DATA
trace=all
tskDir=/tmp/sapinst_instdir/NW73/HDB/COPY/HDB/SYSTEM/STD/AS-ABAP

-------------------------
packages without TSK files
-------------------------
BALDAT
D010TAB
RSDSRUNTIMETRACE
…
_BIC_ATE11_SM100
_BIC_ATE11_SM300
```
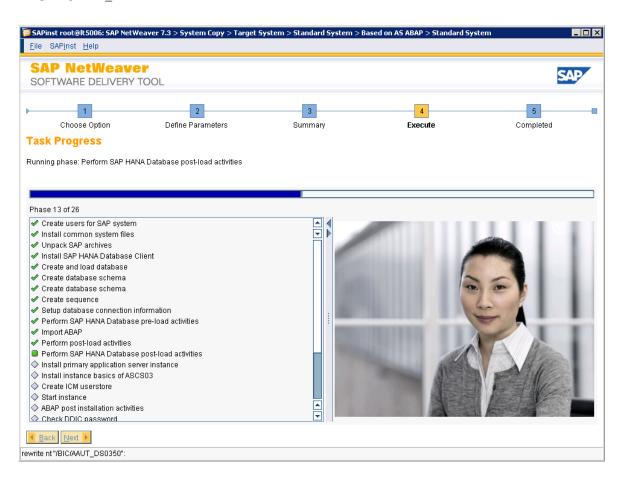
```
-----------------------------------------------
package      object         type    action  status
-----------------------------------------------
SAPAPPL1     BTCJSTAT       table   load    ignore
SAPAPPL1     RSDANLREQ~002  index   create  ignore
SAPAPPL0_1   /BI0/XD_CUSTOMER table load    ignore
-----------------------------------------------
lt5006:/tmp/sapinst_instdir/NW73/HDB/COPY/HDB/SYSTEM/STD/AS-ABAP #
```

⚠️

If an error occur about the file REPOSRC.TSK and the corresponding file `REPOSRC.TSK.bck` delete the
*.bck file and choose retry in the sapinst dialog. See also Note 455195, if you have to merge *.bck files.
`/tmp/sapinst_instdir/NW73/INSTALL/SYSTEM/HDB/STD/AS/REPOSRC.TSK.bck`

⚠️
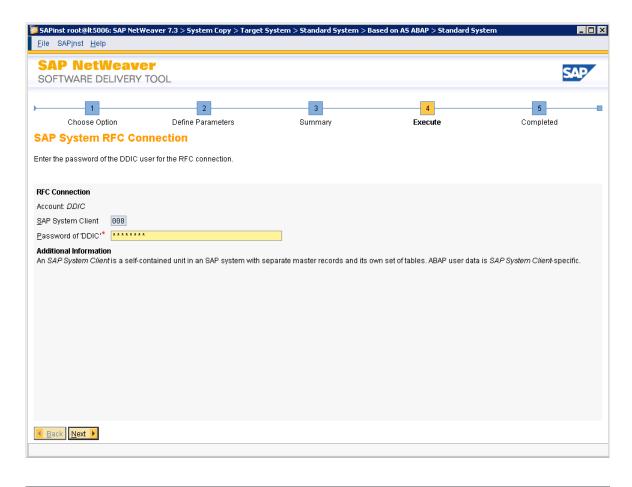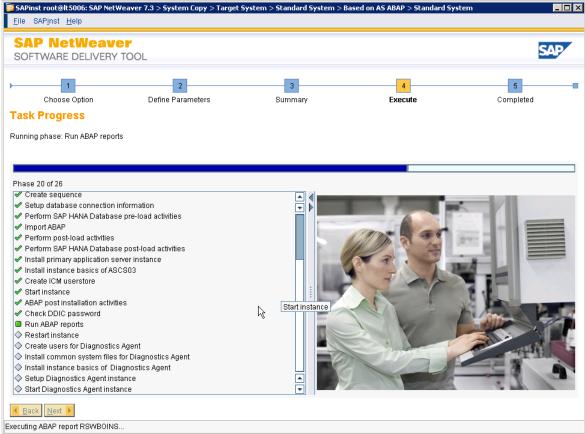
If under any circumstances there is no left space in the directories /sapmnt/<SID> or /usr/sap/<SID>
during the kernel copy procedure, please make sure that the source kernel files in the directory
`DIR_CT_RUN = $(DIR_EXE_ROOT)/$(OS_UNICODE)/linuxx86_64` are identical with the files in
`/usr/sap/<SID>/DVEBMGS<nr>/exe` and `/usr/sap/<SID>/ASCS<nr>/exe`
and no files with length 0 are in the directories.
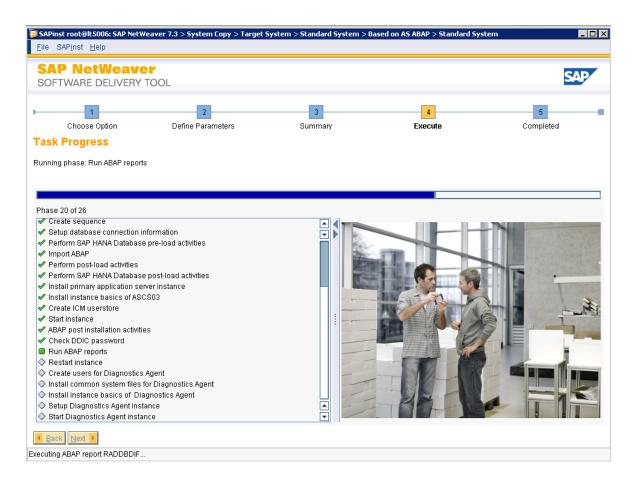
If any core dumps are written, please remove them as they can get up to 6GB big and with a small file
system, it can prevent you from successful starting of the SAP instance.

1.8.8 Correct the DEFAULT.PFL and adapt the instance profile

To activate the correct client, you have to restart the instance.

1.8.9 Obsolete/wrong parameters with NetWeaver 7.30 ABAP

Note 1440880 - Parameter ms/standalone is obsolete

`exe/saposcol = $(DIR_CT_RUN)/saposcol` ➔ obsolete, replaced by diagnostic agent

check the profiles for (un)necessary JAVA parameter's as well, e.g.

`j2ee/dbtype = hdb`
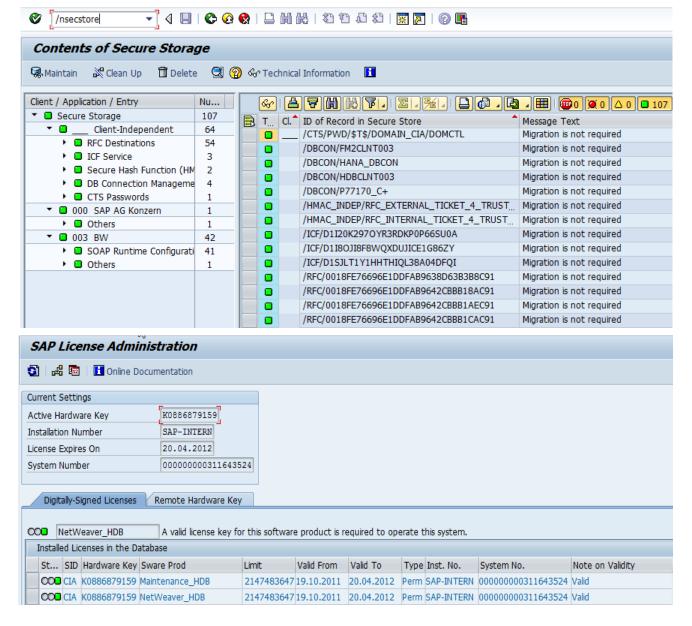
`j2ee/dbname = <SID>`

`j2ee/dbhost = <SERVER>`

1.8.10 Import new license and check secure storage after migration

http://service.sap.com/licensekey

Additional help about SAP licensing can be found here
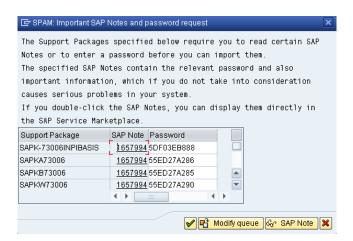
2.   Apply the Current SP Stack (including corrections)

Patches can be downloaded from the following URL: http://service.sap.com/patches (with D/I/S-User)

Remark: Note 1632495 - Method GET_TABLES does not return any table names.
Should be downloaded BEFORE importing SP06 together with SP07!

Additional notes around patches and SP06 to consider:

• Note 1600929 - SAP BW powered by SAP inMemory DB – Information

• Note 1600066 - Available DBSL patches for NewDB

• Note 1639744 - heterogeneous systemcopy NetWeaver 7.30 to HANA target DB

• Note 1657994 - SAP BW 7.30 powered by HANA - Special SP06

   Please find the passwords for the ABAP packages below:
   • SAP_BASIS SAPKB73006   Password: 55ED27A285
   • SAP_ABA   SAPKA73006   Password: 55ED27A286
   • PI_BASIS SAPK-73006INPIBASIS   Password: 5DF03EB888
   • SAP_BW SAPKW73006   Password: 55ED27A290

• Note 1662588 - Download: ABAP only SP06 for SAP BW powered by HANA DB

   ➔ Check the note for the passwords in transaction SPAM (listed above)

Please note that with the combined Import of SP06 and SP07 you still have to use the passwords, even the current release of SAP NetWeaver BW powered by SAP HANA is generally available.

See also the additional notes which can be helpful with the transaction SNOTE:
Note 1627683 - SCWB/SNOTE/SPAU: Changed development package ➔ SP07 for 7.30
Note 1564508 - /SDF/RSORADLD_NEW: No statements during autom. download ➔ SP05 for ST-PI
Note 1557768 - Note Assistant: find the notes that modify an object ➔ Checkprogram
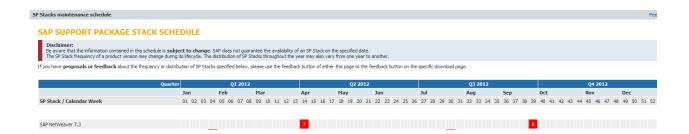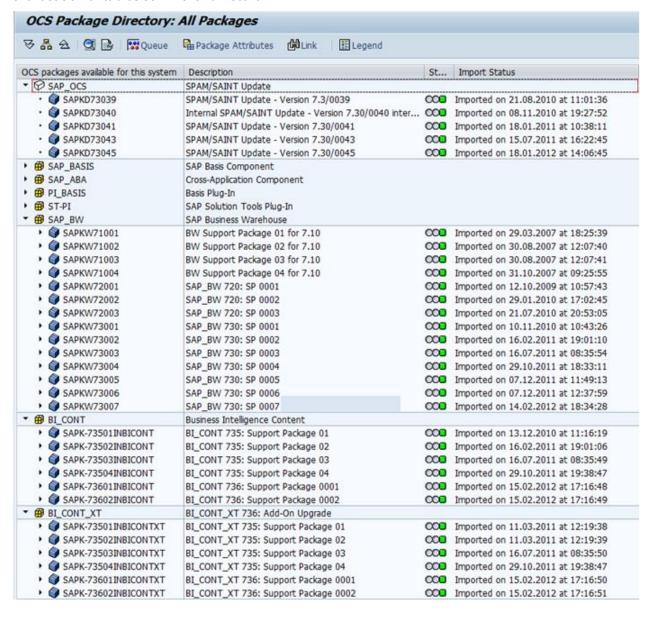
2.1 Apply SP07 for all SAP NetWeaver BW 7.30 systems

Since the availability of SP07 you should apply this mayor Support Package Stack as soon as possible. Consider to use this SP also for upgrade projects as the next SP will not be released within the next six month.

Please note that the latest available version of SAP HANA 1.0 (Rev. 26) is mandatory to be applied as well, as the import of support packages, Add-On's, etc. can take longer on SAP HANA based systems due to the location of tables still in the row store.

Applying SP's can take a long time. This is owing to DOKIL table. It has been created as column store table, not row store. So, you need to convert it to row store. After that, import has been accelerated. Notes 1600929 which refer are to the guidance in notes 1660125 and 1659383.

Also valid for tables VRSD, SMODILOG, E070, E071, TADIR, PAT01

Use the SQL tool from the SAP HANA studio in the SAP<SID> schema and execute:
alter table DOKIL **row;**

2.1.1 Apply corrections after SP07 for HANA based systems

You can always create a current list of correction when you use the following keywords in the note search
http://service.sap.com/notes

For corrections after SP07 for SAP NetWeaver BW 7.30 powered by SAP HANA: SAPKW73008 HANA
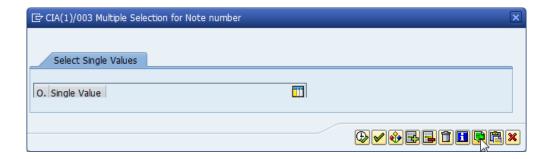
Note 1712334 - Important Notes for SAP BW powered by HANA on SP7

You can download the target list as HTML and copy the column with the note number into a *.txt file

Such a file can be uploaded to the transaction SNOTE
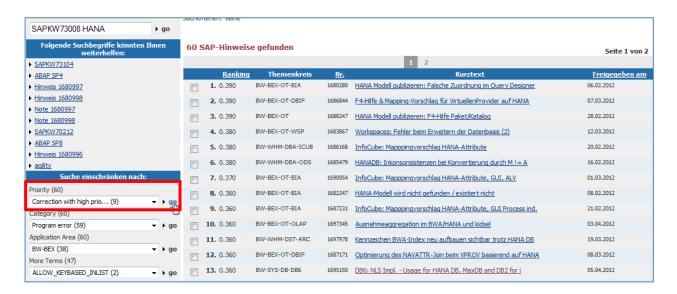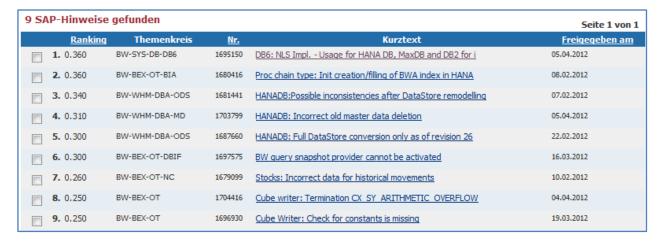
And specify the created *.txt file. This allows you, to upload all of the notes to the transaction SNOTE at once.

In any case the complete list (a dynamic list depending on the issues) cannot be processed, the corrections with high priority are mandatory.
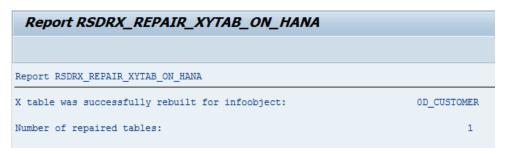
This procedure is of course as well useable for upcoming Support Stacks.

2.1.2 Manual processing of some SAP notes

You may have to check additional notes for the depended notes. This might also affecting other notes

Note 1673420 - X/Y tables do not have a primary key in the database

Run the report RSDRX_REPAIR_XYTAB_ON_HANA after you applied the note to ensure that X/Y tables are correct.

You can also check the consistency with transaction DB02

Note 1640741 - Different database user for DBA Cockpit for SAP HANA
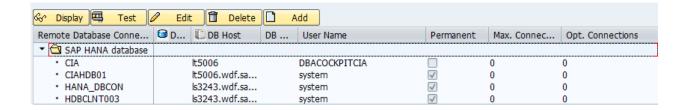
We recommend activating the behavior from Support Package 6 already in Support Package 5, that is, to operate the DBA Cockpit with the dedicated database user DBACOCKPIT<SID>. To do this, the following action is required: Create a DBCON entry for the database user DBACOCKPIT<SID>. To do this, on the initial screen of transaction DBACOCKPIT, first choose the function "DB Connections" and then the "Add" icon. Here, make the following entries:

Connection name: Enter the <SID> of the SAP system.
Database System: SAP HANA database
User name: DBACOCKPIT<SID>
Password: Enter the password of DBACOCKPIT<SID> twice.
Database Host: Enter the host on which the database is installed.
SQL Port: 3xx15, where xx stands for the SAP HANA instance ID
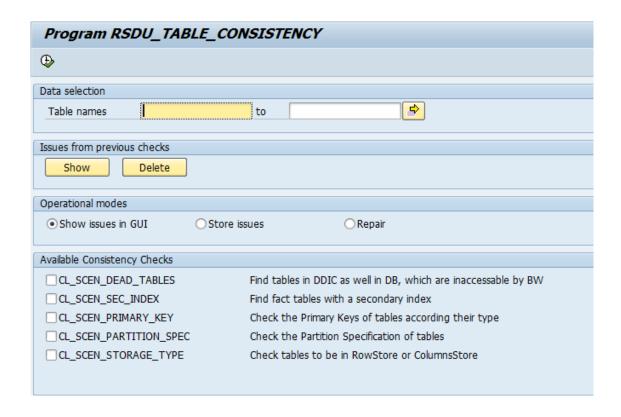
With SP06 and onwards the correct setting should be created. If not, you can delete the automatic created entry in table DB6NAVSYST for the ABAP <SID> and remove the entry in transaction DBCO for the same <SID> before you reenter the transaction DBACOCKPIT again.

Please note that the entry for the DB host is created without any FQDN due to the fact that the hostname is generated directly from the SAP kernel.

If under any circumstances the user DBACOCKPIT<SID> has incomplete privileges to see all DB related information's to monitor properly, replace the ID with SYSTEM.

With Support Package 07 for BW 7.30 a new Report is available to ensure the correct location of the tables in row store. You might have to do some manual steps to import the Notes for this report.

Note 1814339 - SHDB: Development tool classes NW7.30 SP10

Note 1814097 - RSHDB: Development RSDU_TABLE_CONSISTENCY NW7.30 SP10

Note 1892492 - SHDB: Development Tool-Classes NW7.30 SP11

Note 1888511 - RSHDB: Dev. RSDU_TABLE_CONSISTENCY NW7.30 SP11

Note 1889467 - Consistency check - reading pdim adjustment

Note 1939413 - SHDB: misleading security error in class cl_shdb_ddl

Note 1908854 - RSHDB: Hash partition keys of PSA tables without PARTNO

2.2 Apply SP08 for 7.30, SP05 for 7.31 - BW on HANA

Support Stack 08 for NetWeaver BW 7.30 is scheduled for week 40 this year, Support Stack 05 for NetWeaver BW 7.31 for week 43 this year.
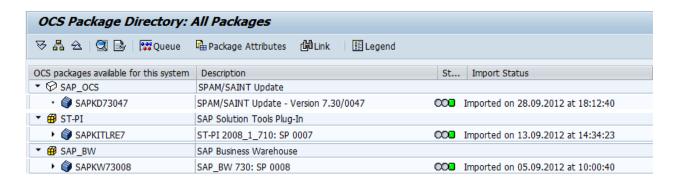
Check also for the latest Support Packages for the ST-PI 2008_1_710 (SP07) as it contains the latest version for the BW on HANA sizing report, Note 1736976 - Sizing Report for BW on HANA

See details for the SAP BWNews - Summary Notes at http://scn400.sap.com/docs/DOC-7777

The minimum revision of the SPAM/SAINT tool is 7.30/0047 and 7.31/0047, updated 0051

The minimum Version for the HANA 1.0 SP04 Version is Revision 36, you will need Kernel PL317 and higher to use the Rev. 37 SDK.

Applying the Support Stack and implementing SAP Notes is already described in the section before.

2.3 Apply SP09 for 7.30, SP07 for 7.31 - BW on HANA

🔲 Always check the Service Market Place for the latest Releases of the mentioned Service Packs for 7.30 and 7.31. You might see already newer SP's available.

See Details in the following SAPBWNEWS Notes:
Note 1750249 - SAPBWNews NW BW 7.30 ABAP SP9
Note 1782744 - SAPBWNews NW BW 7.31 ABAP SP7

From this Release you can take Advantage of the SAP-NLS Solution based on SAP Sybase IQ without any Partner Add-On´s/Solutions.
Note 1796393 - SAP BW near-line solution with Sybase IQ
Note 1737415 - Sybase IQ: Enable remote/secondary connect to Sybase IQ

See Details for the Implementation in the SAP First Guidance Document - Implementation SAP-NLS Solution - https://scn.sap.com/docs/DOC-39627
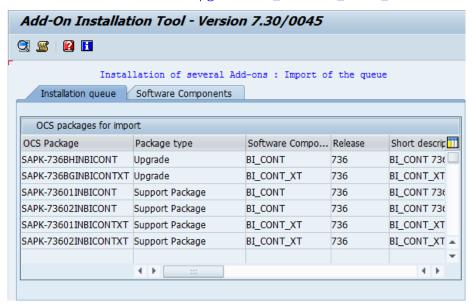
2.3.1 Apply the business content 7.37 (BI_CONT, BI_CONT_XT)

Check the note and download the SP as well. Please note you will need BC and BC_XT

Please Note that the new Business Content for BW 7.3 (XT 7x7) is converted to the new 7.x data flows and when it is installed on BW on HANA completely in-Memory optimized.

Note 1578396 - Installation or upgrade of BI_CONT / BI_CONT_XT 736/746

Note 1678780 - Installation or upgrade of BI_CONT/BI_CONT_XT 7x7

Installation Passwords:

Package: SAPK-736AHINBICONT   Password: 142F674347

Package: SAPK-736AGINBICONTXT   Password: 142F673B3C

Package: SAPK-737AHINBICONT   Password : E16127D341

Package: SAPK-737AGINBICONTXT   Password : E16127AB3A

2.4 NetWeaver 7.40 BW fresh Installations

Due to some incompabilites between HANA 1.0 SP06 and SP07 is not possible at this time to start initially with a fresh installation on HANA 1.0 SP07 (Rev. 70 and higher) together with NetWeaver BW 7.40 SP02.

Note 1925684 - ABAP-Anpassungen for SAP HANA SPS 7

Note 1948334 - SAP HANA Database Update Paths for Maintenance Revisions

Current maintenance revision	possible target SP revision
Revision 69.00	update to revision 70
Revision 69.01	planned to revision 71 (update to revision 70 is not possible)
Revision 69.02	planned to revision 71 (update to revision 70 is not possible)

So you have to start the 7.40 Installation based on SP02 with the HANA Rev. 69 (not 69.01) and finish the initial installation procedure first.

If you already applied the NetWeaver 7.40 SP03-04, please Note that SP05 (which will be released 20th of December 2013) cannot be imported with Transaction SPAM. You must use the SUM 1.0 from the SL toolset, due to an Installation Package in the NetWeaver Basis SP05 Package.

If you apply directly SP05 after the initial Installation (based on NetWeaver 7.40 SP02), you can use the SUM 1.0 directly. A valid stack.xml file for your system is mandatory. This might had impact on the existing Solution Manger Installation in your Landscape, as currently no SLD CR content update is available, which reflects the existence of the NetWeaver 7.40 SP05 packages.

To find the mayor corrections after SP05 for NetWeaver BW 7.40 follow the procedure as describe in Chapter 2.1.1

The Business Content 7.57 for NetWeaver 7.40 will be also available, when SP05 will be released.
A Service Release for NetWeaver 7.40 based on SP05 is also planned, which makes the mentioned manual activities above almost obsolete.

2.4.1 Apply SP05 for NetWeaver BW 7.40

This is a list of Notes to apply after the Import of SP05. To ease the Implementation of this amount of Notes, there are collective Notes available (marked in red). Some of the Notes contain manual activities additionally to the actual Note Implementation. Furthermore the List might not complete, and these Notes will be part of SP06 for NetWeaver 7.40 which will be available in Week 12/2014 (End of March).

Note 1888375 - SAPBWNews NW BW 7.4 ABAP SP 05

1947354	Creation of Package RS_UDO_REPORTS as pre-requisite for collective notes
1891389	Collection Note 7.40 SP01 (Part I)
1949273	Important Notes for BW 7.40, powered by SAP HANA (xls attached)
1949986	Inventory: Allow Extraction out of HANA-opt. Cubes (Part II)
1949903	Inventory: Allow Extraction out of HANA-opt. Cubes (Part I)
1950462	Additional Note for Notes 1898196 and 1900944
1952076	Report BW_POST_MIGRATION causes ABAP Memory Problems

1924074	Collective Note: Exception Aggregation in HANA/BWA
1953480	Create ColumnViews after Upgrade to BW 740 SP5
1938338	RSEC740: CX_SY_RANGE_OUT_OF_BOUNDS dump after BW 740 upgrade
1945434	Changes for Analytical GUIBB in SAP_BW 7.40 SP06
1924541	Inconsistent Changelog Table after DSO Enhancements
1922541	Corrections for Data Warehousing Workbench 740 SP06
1951264	SAP BW 7.40 SP06: Do not display obsolete functions
1923774	Corrections in BW Data Warehouse Management Support Package 06 - Number 01
1950125	Corrections in BW Data Warehouse Management SP06 - Nr. 02
1949891	SP33: Deadlock on DDPRH during RS_BW_POST_MIGRATION
1898395	Secondary Index on InfoObject master data tables
1938542	Insufficient Checks When Deleting/Moving/Replacing Key Fields in DSOs
1922817	Corrections for Open ODS view
1931136	Corrections: Open ODS view SP06 II
1934292	Parallel SAP Hana Execution
1927446	BW2HANA Model generation Authorizations Post-SP05 Correction
1951937	DDIC Objects for Note 1922739
1930385	DDIC Objects for Note 1930213
1936379	DDIC Objects for Note 1930879
1939627	DDIC Objects for Note 1937875
1949452	DDIC Objects for Note 1948060
1930879	External SAP HANA View: 0MANDT
1950054	Performance Improvement during generation of Authorizations
1930213	RS2HANA: Change of the Authorization Generation
1930695	Migration from XML to SQL-based Analytics Privileges
1937875	Pre Requisites Note
1927445	Pre Requisites for Note 1927446 (BW2HANA Authorizations)
1829728	BW Housekeeping Task List
1734333	BW Pre and Post Upgrade and Migration Tasks

⚠

Please Note that the following Notes cannot be implemented as SAP Note Correction. You must wait for SP06 for NetWeaver 7.40, which includes the corrections for the Program RSDU_TABLE_CONCISTENCY.

Note 1953984 - SHDB: Development tool classes NW 7.30 SP12

Note 1888511 - RSHDB: Dev. RSDU_TABLE_CONSISTENCY NW 7.30 SP11

Note 1892492 - SHDB: Development Tool-Classes NW7.30 SP11

2.4.1.1 BW Modeling Tools – Corrections after SP05

The BW modeling tools corrections need special attention. Please follow the list mentioned in the following - Note 1953985 - BW Modeling Tools: Collection Note for NW 7.40 SP05 Nr. 9

Import Procedure to follow carefully:

1929997 - Eclipse MT: Corrections - KW 43/2013 - 01

Execute Report: NOTE_1929997

1929998 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 1

1933352 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 2/1

1932737 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 2/2

Execute Report: NOTE_1932737

1932738 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 2/3

1938377 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 3/1

Execute Report: NOTE_1938377

1938380 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 3/2

1936577 -

1939734 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 4/1

1939735 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 4/2

Execute Report: NOTE_1939735

1939736 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 4/3

1943440 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 5/1

Execute Report: NOTE_1943440

1943441 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 5/2

1947354

Execute Report: RS_UDO_NOTE_1947354

1946871 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 6/1

Execute Report: RS_UDO_NOTE_1946871

1946872 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 6/2

1950821 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 7/1

Execute Report: RS_UDO_NOTE_1950821

1950822 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 7/2

1951528 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 8/1

Execute Report: RS_UDO_NOTE_1951528

1951529 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 8/2

1953985 - BW Modeling Tools: Collection Note for NW 7.40 SP05 # 9

2.4.1.2   OData and BICS - Corrections after SP05

These are the corrections in regards of the OData/BICS usage after SP05 implementation. The List is created at 17th of December 2013 and has no intended to be exhaustive.

Note Number	Short Text
1953244	EQ mit falscher Ergebnismenge
1955467	ODataQuery: Resultset-call mit dump for planing enalbed ODataQueries
1941751	ODataQuery: Features and Limitations for SP06
1906173	ODataQuery: Features and Limitations for SP05
1946887	BW ODataQuery for SP06 II
1872558	Query-Eigenschaft f. Freigabe f. externen Zugriff über OData
1944258	Easy-Query-Aufbau: Aufbaureport
1913345	BW ODataQuery für SP06
1934320	EQ: RSEQ_QUERY_EXECUTE $inlinecount support
1933818	EQ: Generierungsfehler wg Merkmale mit display key = none
1916527	Easy Query Generation Failed with SYNTAX_ERROR dump in CL_EQ_BICS_RUNTIME
1915404	EQ: RowID - Gatewayadapter mit falschem Resultset
1913821	EQ Generierung beim 1x II
1913348	EQ: Resteknoten mit verschobenen Werten
1911270	EQ Wertehilfe (F4) mit falschen Schlüsseln

1926915	InA 7.40 SP04 - Corrections 01
1929080	InA 7.40 SP04 - Corrections 02
1931797	InA 7.40 SP04 - Corrections 03
1939622	InA 7.40 SP04 - Corrections 04
1940116	InA 7.40 SP04 - Corrections 05
1940710	InA 7.40 SP04 - Corrections 06
1944197	InA 7.40 SP04 - Corrections 07
1951984	InA 7.40 SP06 - Corrections 08
1955398	InA 7.40 SP06 - Corrections 10
1965959	InA 7.40 SP07 - Corrections 11

2.4.1.3　　　Workspace Designer - Corrections after SP05

SAP Note Number	Short Text
1939913	Analytischer Index: Neuaufbau der BWA-Ablage schlägt fehl
1950626	BW Workspace API Erweiterung - Voraussetzung
1954620	BW Workspace Designer AO API: Korrekturen für den BPC Client
1950475	BW Workspace Designer: Audit for local providers - prerequisite part 1/2
1939713	BW Workspace Designer: Audit für locale Provider
1952103	BW Workspace Designer: Audit für lokale Provider Voraussetzung Teil 2/2
1946653	BW Workspace Designer: Filtering fields of type "Date" in data display of local
1950478	BW Workspaces - Namespace
1950477	BW Workspaces - namespace - prerequisite
1955187	BW Workspaces: "Plannung deaktivieren" während der Plannung
1955354	BW Workspaces: lokaler CompositeProvider Modellierung mit MultiProvider
1931522	BW WSP Erweiterungen für 740 SP05
1947356	Korrekturen am BW Workspace Designer
1945268	MultiProvider deselection does not work
1951195	Workspace: (AO/BPC) API Erweiterungen
1943052	Workspaces: Cleansing - Various corrections

2.4.2 Apply SP06 for NetWeaver BW 7.40

With the release of SP06 for NetWeaver 7.40 for BW the most of the mentioned SAP Notes become obsolete. Never the less, the different types of Note corrections are still valid.

Note 1947354 - Creation of Package RS_UDO_REPORTS as pre-requisite for collective notes

Note 1920525 - Preliminary Version SAPBWNews NW BW 7.4 ABAP SP 06

2.5 Run transaction SGEN

Currently transaction SGEN takes quite a while when selecting entries from table TADIR.

As a workaround you can select all components which skip the TADIR selection. Then the SGEN generation will start immediately. A general solution is available with SAP HANA 1.0 Rev. 26

If you already moved the table TADIR into the row store, proceed as normally.

2.6 First run of BW technical content

Check the InfoObject 0LANGU and 0OBJECTID when you have a new install of SAP NetWeaver BW 7.30 SP05 and higher (despite of SAP HANA). You have to activate the InfoObjects prior to the activation of the technical content, especially you import objects from other SAP NetWeaver BW releases/systems (check with RSD5 and see note 1387166).
See also the following notes for corrections/explanations:

Note 984021 - Changes to InfoObject 0LANGU

Note 1608322 - Technical Content Activation - Operational BI systems

Note 1597959 - Errors when activating time characteristics of Tech. Content

Note 1696030 - Technischer Content wird nicht übernommen

Note 1684054 - External hierarchy characteristics: Error creating content

Note 1387166 - Master Data Read Class (actually a post activity after the Upgrade to NetWeaver 7.x)

These Notes are included in SP08 for BW 7.30. So if your BW System is already on this Level, you only have to proceed with the following check:
The InfoObjects 0BCTCOMP, 0CALDAY (referring to 0DATE) needs special attention:

The problem is related to the fact, that InfoObject 0BCTCOMP references table RSOCOMPT as the text table instead of an own generated text table. As the activation process now tries to create an attribute view using field TXTSH, which is not in table RSOCOMPT, the process aborted. When you change table RSOCOMPT by adding the field TXTSH and reactivated the InfoObject, then the activation process will be successful.

The normal way to solve the problem would be to define a read class for the master data in RSD1. However since there is no delivery version for this object and it has a long text field named TEXTLG in its text table RSOCOMPT, the value help index activation problem may be solved here by modifying the object definition in RSD1 to support only long texts.
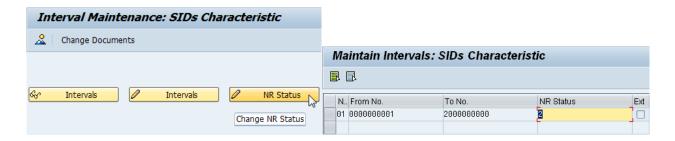
To do this just deactivate the check box "Medium text exists" and activate the check box "Long text exists" instead. Some of the mentioned issues are collected in the following note:

Note 1695112 - Activities in BW after migrating to the SAP HANA database

2.6.1 Check InfoObject 0IOBJNM
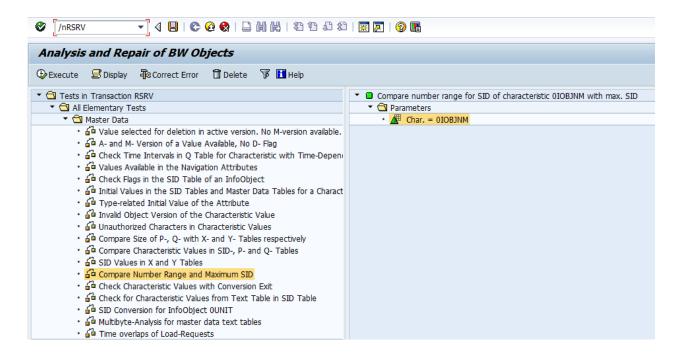
Before you start any transaction for the start of business content installation (also true before starting transaction RSA1 which triggers the technical content Installation) in new installed systems you must take of the InfoObject 0IOBJNM first.

So go to transaction SNRO (Number Range Object Maintenance) and look for BIM9999991.
Change the NR status from 0 to 2 and save the changes.

Details are described in notes 586648 and 1331403 and in the following note:

1637935 - Short Dump RAISE_EXCEPTION RSO_CONTENT_INSTALL_BATCH X_MESSAGE

After this the following transactions can be called to activate the necessary SAP Business Content:

- RS_PERS_ACTIVATE   ➔ Activating Personalization in BEx
- RSTCT_INST_BIAC   ➔ Report RSTCT_ACTIVATEADMINCOCKPIT_NEW
- RSTCO_ADMIN   ➔ Installation SAP BW technical content
- RS_TCO_ACTIVATION   ➔ Installation SAP BW technical content, if 0LANGU cannot be act.

Note 1656582 - Query terminations - InfoCubes, DSOs, master data in HANA DB

Note 1543092 - Upgrade of BP_BIADMIN 1.0 to BP_BIADMIN 3.0(BP BW ADMINISTRATION)

Note 1730465 - Inconsistency in number ranges: Termination BRAIN 071

Note 1937899 - Number range inconsistency after system setup

Note 1878184 - ST-PI: SAP HANA Download function module > ST-PI SP 08

This additional note contains a template for design rules required to create a user-defined expert routine, which can be useful for the SAP NetWeaver BW on SAP HANA use case:

Note 1227667 - Guidelines for expert routine: Design rules

3.   Modifying the SAP profiles (restart SAP)

These example profiles are taken from a Linux x86 – 64 BIT application server with at least 16GB RAM memory for the SAP instance. You have to take into account that other OS may have individual memory setting which have to be adjusted and your application server might not has the same resources.

This affects at least the following parameters:
```
em/initial_size_MB
em/max_size_MB
PHYS_MEMSIZE
rdisp/wp_no_btc

rdisp/wp_no_dia

abap/buffersize

abap/shared_objects_size_MB

rsdb/esm/buffersize_kb

rsdb/obj/buffersize

rtbb/buffer_length

zcsa/table_buffer_area

ztta/max_memreq_MB
```

3.1 SAP Profile - DEFAULT.PFL

```
SAPDBHOST = lt5006
SAPSYSTEMNAME = CIA
SAPGLOBALHOST = lt5006
SAPLOCALHOST = lt5006
SAPFQDN = wdf.sap.corp
SAPLOCALHOSTFULL = $(SAPLOCALHOST).$(SAPFQDN)
system/type = ABAP
rdisp/mshost = lt5006
rdisp/msserv = sapmsCIA
rdisp/msserv_internal = 3903
gw/acl_mode = 1
login/system_client = 001
rdisp/TRACE = 1
ms/redirect_version = 1
ms/urlmap_secure = 1
ms/urlprefix_secure = 1
login/password_downwards_compatibility = 4
login/no_automatic_user_sapstar = 0
```

3.2 SAP Profile - CIA_ASCS03_lt5006

```
SAPSYSTEMNAME = CIA
SAPSYSTEM = 03
INSTANCE_NAME = ASCS03
DIR_CT_RUN = $(DIR_EXE_ROOT)/$(OS_UNICODE)/linuxx86_64
DIR_EXECUTABLE = $(DIR_INSTANCE)/exe
DIR_PROFILE = $(DIR_INSTALL)/profile
_PF = $(DIR_PROFILE)/CIA_ASCS03_lt5006
SETENV_00 = DIR_LIBRARY=$(DIR_LIBRARY)
SETENV_01 = LD_LIBRARY_PATH=$(DIR_LIBRARY):%(LD_LIBRARY_PATH)
SETENV_02 = SHLIB_PATH=$(DIR_LIBRARY):%(SHLIB_PATH)
SETENV_03 = LIBPATH=$(DIR_LIBRARY):%(LIBPATH)
SETENV_04 = PATH=$(DIR_EXECUTABLE):%(PATH)
#-----------------------------------------------------------------------
# Copy SAP Executables
#-----------------------------------------------------------------------
_CPARG0 = list:$(DIR_CT_RUN)/scs.lst
Execute_00 = immediate $(DIR_CT_RUN)/sapcpe$(FT_EXE) pf=$(_PF) $(_CPARG0)
_CPARG1 = list:$(DIR_CT_RUN)/sapcrypto.lst
Execute_01 = immediate $(DIR_CT_RUN)/sapcpe$(FT_EXE) pf=$(_PF) $(_CPARG1)
#-----------------------------------------------------------------------
# Start SAP message server
#-----------------------------------------------------------------------
_MS = ms.sap$(SAPSYSTEMNAME)_$(INSTANCE_NAME)
Execute_02 = local rm -f $(_MS)
Execute_03 = local ln -s -f $(DIR_EXECUTABLE)/msg_server$(FT_EXE) $(_MS)
Restart_Program_00 = local $(_MS) pf=$(_PF)
#-----------------------------------------------------------------------
# Start SAP enqueue server
#-----------------------------------------------------------------------
_EN = en.sap$(SAPSYSTEMNAME)_$(INSTANCE_NAME)
Execute_04 = local rm -f $(_EN)
Execute_05 = local ln -s -f $(DIR_EXECUTABLE)/enserver$(FT_EXE) $(_EN)
Restart_Program_01 = local $(_EN) pf=$(_PF)
#-----------------------------------------------------------------------
# SAP Enqueue Server
#-----------------------------------------------------------------------
enque/table_size = 64000
enque/snapshot_pck_ids = 1600
enque/server/max_query_requests = 5000
enque/server/max_requests = 5000
enque/async_req_max = 5000
enque/encni/threadcount = 4
rdisp/enqname = $(rdisp/myname)
SETENV_05 = SECUDIR=$(DIR_INSTANCE)/sec
ssl/ssl_lib = $(DIR_EXECUTABLE)$(DIR_SEP)$(FT_DLL_PREFIX)sapcrypto$(FT_DLL)
sec/libsapsecu = $(ssl/ssl_lib)
ssf/ssfapi_lib = $(ssl/ssl_lib)
```

3.3 SAP Profile - CIA_DVEBMGS02_lt5006

```
SAPSYSTEMNAME = CIA
SAPSYSTEM = 02
INSTANCE_NAME = DVEBMGS02
DIR_CT_RUN = $(DIR_EXE_ROOT)/$(OS_UNICODE)/linuxx86_64
DIR_EXECUTABLE = $(DIR_INSTANCE)/exe
DIR_PROFILE = $(DIR_INSTALL)/profile
_PF = $(DIR_PROFILE)/CIA_DVEBMGS02_lt5006
SETENV_00 = DIR_LIBRARY=$(DIR_LIBRARY)
SETENV_01 = LD_LIBRARY_PATH=$(DIR_LIBRARY):%(LD_LIBRARY_PATH)
SETENV_02 = SHLIB_PATH=$(DIR_LIBRARY):%(SHLIB_PATH)
SETENV_03 = LIBPATH=$(DIR_LIBRARY):%(LIBPATH)
SETENV_04 = PATH=$(DIR_EXECUTABLE):%(PATH)
#-------------------------------------------------------------------------
# Copy SAP Executables
#-------------------------------------------------------------------------
Execute_00 = immediate $(DIR_CT_RUN)/sapcpe$(FT_EXE) pf=$(_PF)
Execute_01 = immediate $(DIR_CT_RUN)/sapcpe$(FT_EXE) pf=$(_PF)
_CPARG0 = list:$(DIR_CT_RUN)/sapcrypto.lst
Execute_02 = immediate $(DIR_CT_RUN)/sapcpe$(FT_EXE) pf=$(_PF) $(_CPARG0)
SAPJVM_VERSION = 6.1.032
DIR_SAPJVM = $(DIR_EXECUTABLE)$(DIR_SEP)sapjvm_6
jstartup/vm/home = $(DIR_SAPJVM)
#-------------------------------------------------------------------------
# Start ABAP database
#-------------------------------------------------------------------------
_DB = db.sap$(SAPSYSTEMNAME)_$(INSTANCE_NAME)
Execute_03 = immediate rm -f $(_DB)
Execute_04 = immediate ln -s -f $(DIR_CT_RUN)/startdb $(_DB)
Start_Program_00 = immediate $(_DB)
exe/icmbnd = $(DIR_CT_RUN)/icmbnd
rdisp/wp_no_btc = 32
rdisp/wp_no_dia = 64
#-------------------------------------------------------------------------
# Start SCSA administration
#-------------------------------------------------------------------------
Execute_05 = local $(DIR_EXECUTABLE)/sapmscsa pf=$(_PF) -n
#-------------------------------------------------------------------------
# Start application server
#-------------------------------------------------------------------------
_DW = dw.sap$(SAPSYSTEMNAME)_$(INSTANCE_NAME)
Execute_06 = local rm -f $(_DW)
Execute_07 = local ln -s -f $(DIR_EXECUTABLE)/disp+work$(FT_EXE) $(_DW)
Start_Program_01 = local $(_DW) pf=$(_PF)
#-------------------------------------------------------------------------
# Start internet graphics server
#-------------------------------------------------------------------------
_IG = ig.sap$(SAPSYSTEMNAME)_$(INSTANCE_NAME)
Execute_08 = local rm -f $(_IG)
Execute_09 = local ln -s -f $(DIR_EXECUTABLE)/igswd_mt $(_IG)
Start_Program_02 = local $(_IG) -mode=profile pf=$(_PF)
```

```
rdisp/wp_no_spo = 1
rdisp/wp_no_vb = 2
rdisp/wp_no_vb2 = 1
rdisp/max_wprun_time = 3600
# http://trexweb.wdf.sap.corp:1080/wiki/index.php/AppServer_profile_parameter
# rsdb/dbid = HDB
# dbs/hdb/sqlopt = -X SQL,PACKET
dbs/hdb/cmd_buffersize = 1048576
# dbs/hdb/dbsl_profile = 0
dbs/hdb/max_array = 100000
rsdb/max_blocking_factor = 50
rsdb/min_blocking_factor = 0
rsdb/max_in_blocking_factor = 1024
rsdb/min_in_blocking_factor = 0
ipc/shm_psize_10 = 220000000
ipc/shm_psize_40 = 508000000
abap/buffersize = 800000
abap/heap_area_dia = 5726623060
abap/heap_area_nondia = 5726623060
abap/heap_area_total = 5726623060
abap/heaplimit = 40000000
abap/package_check = off
abap/pxa = develop
abap/shared_objects_size_MB = 200
em/blocksize_KB = 4096
em/global_area_MB = 2048
em/initial_size_MB = 32768
em/max_size_MB = 32768
es/implementation = std
gw/max_conn = 4096
gw/max_conn_per_wp = 128
gw/max_sys = 4096
gw/max_wp = 4096
gw/stat = 1
rdisp/PG_MAXFS = 262144
rdisp/PG_SHM = 262144
rdisp/ROLL_MAXFS = 262144
rdisp/ROLL_SHM = 262144
rsdb/esm/buffersize_kb = 524288
rsdb/esm/large_object_size = 67108864
rsdb/esm/max_objects = 20000
rsdb/ntab/entrycount = 200000
rsdb/ntab/ftabsize = 160000
rsdb/ntab/irbdsize = 32000
rsdb/ntab/sntabsize = 40000
rsdb/obj/buffersize = 262144
rsdb/obj/large_obj_size = 32768
rsdb/obj/max_objects = 40000
rsdb/cua/buffersize = 15000
rtbb/buffer_length = 296608
rtbb/max_tables = 2000
sap/bufdir_entries = 20000
zcsa/db_max_buftab = 100000
```

```
zcsa/table_buffer_area = 350000000
ztta/max_memreq_MB = 4096
ztta/parameter_area = 64000
zcsa/installed_languages = DEFINK
zcsa/presentation_buffer_area = 78000000
zcsa/sync_reload = 5
zcsa/system_language = E
ztta/roll_area = 4194304
ztta/roll_extension = 3221225472
ztta/roll_extension_dia = 3221225472
ztta/roll_extension_nondia = 3221225472
ztta/roll_first = 1


#- ICM parameter (global part) -------------------------------------------
rdisp/start_icman = true
vmcj/enable = off
icm/min_threads = 24
icm/max_threads = 60
icm/max_conn = 2048
icm/max_sockets = 4096
icm/keep_alive_timeout = 120
icm/conn_timeout = 50000
icm/max_timeout_net = 20000
icm/min_timeout_mpi = 50000
icm/HTTP/logging_0 = PREFIX=/, LOGFILE=http_server_log, LOGFORMAT=%t %H %a -
 %r %s %b %{Content-Length}i %L, MAXSIZEKB=102400, FILEWRAP=on
icm/HTTP/logging_client_0 = PREFIX=/, LOGFILE=http_client_log, LOGFORMAT=%t %H %a -
 %r %s %b %{Content-Length}i %L, MAXSIZEKB=102400, FILEWRAP=on
icm/server_port_0 = PROT=HTTP ,PORT=80$(SAPSYSTEM),PROCTIMEOUT=120,TIMEOUT=2000
icm/server_port_1 = PROT=HTTPS,PORT=81$(SAPSYSTEM),PROCTIMEOUT=120,TIMEOUT=2000
icm/server_port_2 = PROT=SMTP ,PORT=25$(SAPSYSTEM),PROCTIMEOUT=120,TIMEOUT=2000
icm/HTTP/server_cache_0 = PREFIX=/, CACHEDIR=$(DIR_DATA)/cache
icm/HTTP/server_cache_0/size_MB = 100
icm/HTTP/max_request_size_KB = -1
icm/host_name_full = $(SAPGLOBALHOST).$(SAPFQDN)
is/SMTP/virt_host_0 = *:25$(SAPSYSTEM)
mpi/total_size_MB = 512
mpi/buffer_size = 32768
mpi/max_pipes = 4000
ms/redirect_version = 1
ms/urlmap_secure = 1
ms/urlprefix_secure = 1
ms/server_port_0 = PROT=HTTP,PORT=82$(SAPSYSTEM)
ms/server_port_1 = PROT=HTTPS,PORT=83$(SAPSYSTEM)
wdisp/HTTP/min_pooled_con = 128
wdisp/HTTP/max_pooled_con = 256
login/accept_sso2_ticket = 1
login/create_sso2_ticket = 3
SETENV_05 = SECUDIR=$(DIR_INSTANCE)/sec
ssl/ssl_lib = $(DIR_EXECUTABLE)$(DIR_SEP)$(FT_DLL_PREFIX)sapcrypto$(FT_DLL)
sec/libsapsecu = $(ssl/ssl_lib)
ssf/ssfapi_lib = $(ssl/ssl_lib)
ssf/name = SAPSECULIB
```

3.4   Copy the tickets from DVEBMGS02/sec to ASCS03/sec

As with NetWeaver 7.30 a new installation needs the SAPCryptoLib mandatory. Currently the new enqueue server instance together with the ICM instance doesn't contain the necessary tickets for the SSO/SSF initialization. Simply copy the tickets from DVEBMGS02/sec to ASCS03/sec before restart.

3.5   Check the HDB/ABAP settings in general

Note 1666670 - BW on SAP HANA - landscape deployment planning

Note 1736976 - Sizing Report for BW on HANA

Note 1908075 - BW on HANA SP6: Landscape Redistribution

Note 1908073 - BW on HANA Scale Out: Tabellenverteilung / -partitionierung

Note 1891393 - Automated Configuration scripts for HANA Landscape (contains HDB script for reorg)

Note 1676348 - SAP HANA db: Statisticsserver runs out of memory

Note 1929538 - HANA Statistics Server - Out of Memory

Note 1950221 - SAP HANA DB: Reinitializing the Statisticsserver

Note 1813245 - SAP HANA DB: Row store reorganization

Note 1930979 - Alert: Sync/Async read ratio

3.5.1 Check/update the HDB ABAP settings

```
# http://trexweb.wdf.sap.corp:1080/wiki/index.php/AppServer_profile_parameter
rsdb/dbid = HDB
#dbs/hdb/sqlopt = -X SQL,PACKET
dbs/hdb/cmd_buffersize = 1048576
# dbs/hdb/dbsl_profile = 0
dbs/hdb/max_array = 100000
rsdb/max_blocking_factor = 50
rsdb/min_blocking_factor = 0
rsdb/max_in_blocking_factor = 1024
rsdb/min_in_blocking_factor = 0
```

For a standard parameter set and the correct customizing setting please refer also to the SCN Article - http://scn.sap.com/docs/DOC-28504 and see the following Note 1517236 - Tips for NewDB

3.5.2 Check the HDB settings for SP05 and higher

With SAP HANA you are forced to change the `SAP<SID>` (DBACOCKPIT<SID>) password regularly. If you want to skip this feature, change this behavior by executing the following statement in the SAP HANA studio for the affected SAP Schema user:

```
'alter user SAP<SID> disable password lifetime;'
```

[Note 1514967 - SAP HANA: Central Note](#)

[Note 1666976 - uniqueChecker usage description](#)

The uniqueChecker is used to do a consistency check on column store database tables. It can identify problems related to primary keys and unique constraints.

3.5.3 SAP HANA 1.0 Revision 45: Initial SP05 release HANA 1.0

[Note 1771591 - SAP HANA Appliance Software SPS 05 Release Note](#)

[Note 1793917 - SAP HANA appliance: Revision 45 of SAP HANA database](#)

[Note 1774187 - SAP HANA DB: GNav queries do not work in distr. environment](#)

New Features for SAP HANA with SP05 see

http://help.sap.com/hana/hana_sps5_whatsnew_en.pdf

Updating the SAP HANA to SP05 see

https://service.sap.com/~sapidb/011000358700000604942011

Using the software update manager (SUM) for HANA

https://service.sap.com/~sapidb/011000358700001367422012E.pdf

3.5.4 SAP HANA 1.0 Revision 46: patch for IP functions 46

[Note 1800724 - SAP HANA appliance: Revision 46 of SAP HANA database](#)

[Note 1802461 - Revision 46 Enhancements for Planning Functions](#)

3.5.5 SAP HANA 1.0 Revision 47: patch for MDX

[Note 1803674 - SAP HANA appliance: Revision 47 of SAP HANA database](#)

[Note 1800806 - Indexserver-crash bei MDX über ODBO und Multithreading](#)

Apply at least Rev. 47 to solve the problem in the Note described above.

3.5.6 SAP HANA 1.0 Revision 48: patch for IP functions Rev. 48

[Note 1808897 - SAP HANA appliance: Revision 48 of SAP HANA database](#)

[Note 1809437 - Revision 48 Enhancements for Planning Functions](#)

3.5.7 SAP HANA 1.0 Revision 49: patch for BW (OPAP views)

Note 1808882 - SAP HANA appliance: Revision 49 of SAP HANA database

Note 1811804 - Deadlock caused by Queries on Olap Views

Apply at least Rev. 49 solve the problem in the Note described above.

3.5.8 SAP HANA 1.0 Revision 50: patch for IP functions Rev. 50

Note 1819928 - SAP HANA appliance: Revision 50 of SAP HANA database

Note 1820266 - Revision 50 Enhancements for Planning Functions

3.5.9 SAP HANA 1.0 Revision 51: patch for BW (DSO conversion)

Note 1823655 - SAP HANA appliance: Revision 51 of SAP HANA database

Note 1821785 - DSO conversion is hanging due low number of latematcol pages

Apply at least Rev. 51 to solve the problem in the Note described above.

3.5.10   SAP HANA 1.0 Revision 52: patch for backup/restore

Note 1830621 - SAP HANA appliance: Revision 52 of SAP HANA database

Note 1842096 - HANA Backup & Restore Performance

3.5.11   SAP HANA 1.0 Revision 53: patch for several BW issues

Note 1825895 - SAP HANA appliance: Revision 53 of SAP HANA database

Note 1843067 - No/incomplete data BW query empty result/filter

Note 1837029 - "error getting chunk for index getNext" DTP fails aft.20 min

Note 1810372 - HANA BW: no error message from TREX_EXT_GET_NEXT_AGGR_RESULT

Note 1825771 - SAP HANA DB: data structure corrupt in distributed landscape

Apply at least Rev. 53 to solve the problems and issues described in the Notes above.

3.5.12   SAP HANA 1.0 Revision 54: patch for Rev. 53

Note 1848035 - SAP HANA appliance: Revision 54 of SAP HANA database

3.5.13   SAP HANA 1.0 Revision 55: patch for Rev. 52-54

Note 1852425 - SAP HANA appliance: Revision 55 of SAP HANA database

Note 1852300 - SAP HANA: Filters on SQL CalcViews are not being pushed down

Apply at least Rev. 55 to solve the problem in the Note described above. Furthermore additional Issues which occurred with Rev. 52-54 are fixed with this Revision.

3.5.14   SAP HANA 1.0 Revision 56: patch for Rev. 55/BW patch

Note 1858938 - SAP HANA appliance: Revision 56 of SAP HANA database

3.5.15   SAP HANA 1.0 Revision 57: BW HANA DSO enablement

Note 1869142 - SAP HANA appliance: Revision 57 of SAP HANA database

Note 1849497 - SAP HANA: Optimizing standard DataStore objects

Note 1849498 - SAPHANA: Rückkonvertierung von SAP HANA-opt. DataStores

With this Revision is possible now to skip the DSO conversion to HANA, as the original layout of the DMO object (three tables, original change table instead of CalcView).

Note 1849497 enables the OLAP processor to push down the activation to the HANA database.

3.5.16   SAP HANA 1.0 Revision 58: patch for BW HANA modeler

Note 1873115 - SAP HANA appliance: Revision 58 of SAP HANA database

3.6 SAP HANA 1.0 SP06 (Rev. 6x)

3.6.1 SAP HANA 1.0 Revision 60: Initial SP06 release HANA 1.0

Rev. 59 was skipped.

Release Notes for HANA 1.0 SP06

http://help.sap.com/hana/Whats_New_SAP_HANA_Platform_Release_Notes_en.pdf

SAP HANA Master Update Guide

http://help.sap.com/hana/SAP_HANA_Master_Update_Guide_en.pdf

Note 1848976 - SAP HANA Platform SPS 06 Release-Informations

Note 1880274 - SAP HANA appliance: Revision 60 of SAP HANA database

Note 1861395 - Revision 60 Enhancements for Planning Functions

Note 1852300 - SAP HANA: Filters on SQL CalcViews are not being pushed down

Note 1843067 - No/incomplete data BW query empty result/filter

Note 1876879 - Calculated Attribute of Calculaton View missing (rev 60)

Note 1880721 - Upgrade fails for a few Custom Storage Connectors

Note 1877480 - Incorrect CODE_SIZE

The released Version of SP06 for HANA 1.0 contains also addition for the BW on HANA use case, like:

- Performance was improved for BW queries which have very unrestrictive fems0 filter and restrictive fems-N filters.
- Significant performance increase in data replication scenarios based on R3Load based on reorganization of database copy processes.
- Already with Rev. 57 the updated DSO handling is available, which means the conversion to in-memory optimized DSO is not necessary anymore.

Additional Notes - BW on HANA related

Note 1862584 - BW on HANA: support of grouping objects

Note 1865618 - Query Laufzeit schlechter mit steigender Anzahl an Snapshots

Note 1825665 - BW Corrections for HANA DB - BW 7.30 SP10

3.6.1.1 Additional Notes - BW on HANA security related

Note 1836006 - Requirements for DBMS User for DB connection
Note 1899926 - SAP HANA Database Schema Stability
Note 1899222 - ABAP-managed DB procedures: Technical prerequisites
Note 1894643 - Problems with SAP HANA ODP following impl. of SAP HANA SP06
Note 1897236 - HANA: Error "insufficient privilege: Not authorized" in SM21
Note 1908075 - BW on SAP HANA SP06: Landscape redistribution
Note 1942471 - New Debug Privileges for SQLScript Debugger
Note 1989239 - Error 258 - Insufficient Privilege - when accessing table TABLE_PLACEMENT

```
GRANT EXECUTE ON SYS.GET_PROCEDURE_OBJECTS TO SAP<SID>;
GRANT EXECUTE ON SYS.TRUNCATE_PROCEDURE_OBJECTS TO SAP<SID>;
GRANT EXECUTE ON SYS.DEBUG TO SAP<SID>;
GRANT SELECT ON SYS.M_FEATURES TO SAP<SID>;
GRANT SELECT ON _SYS_RT.TABLE_PLACEMENT TO SAP<SID>;
GRANT SELECT ON _SYS_REPO.SCHEMAVERSION TO SAP<SID>;
GRANT ABAP_SYS_REPO TO _SYS_REPO;
GRANT SELECT ON SCHEMA ABAP_SYS_REPO TO SAP<SID> with GRANT OPTION;
GRANT SELECT ON SCHEMA _SYS_BIC TO SAP<SID> WITH GRANT OPTION;
GRANT SELECT ON SCHEMA _SYS_REPO TO SAP<SID> WITH GRANT OPTION;
GRANT INSERT ON SCHEMA _SYS_STATISTICS TO DBA_COCKPIT;
GRANT UPDATE ON SCHEMA _SYS_STATISTICS TO DBA_COCKPIT;
GRANT DELETE ON SCHEMA _SYS_STATISTICS TO DBA_COCKPIT;
```

3.6.2 SAP HANA 1.0 Revision 61: fix for backup recovery with Studio

Note 1888585 - SAP HANA appliance: Revision 61 of SAP HANA database

3.6.3 SAP HANA 1.0 Revision 62: fix for Rev. 61

Note 1894285 - SAP HANA appliance: Revision 62 of SAP HANA database
Note 1891354 - SAP HANA DB: Duplicate entries in column store table

3.6.4 SAP HANA 1.0 Revision 63: Maintenance Revision Q3/2013

Note 1901670 - SAP HANA Database Revision 63 (MR Q3/2013)

3.6.5 SAP HANA 1.0 Revision 64-66: do not use these Versions!

Note 1908139 - SAP HANA Database Revision 64
Note 1912291 - SAP HANA Database Revision 65
Note 1913174 - SAP HANA Database Revision 66

3.6.6 SAP HANA 1.0 Revision 67: fixes and corrections for Rev. 63-66

Note 1918550 - SAP HANA Database Revision 67

Note 1891354 - SAP HANA DB: Duplicate entries in column store table

Note 1918267 - SAP HANA DB: corrupt deltalog of column store table

Note 1919034 - Related to 1918267: How to run procedure MERGE_ALL_TABLES

Note 1919033 - Related to 1918267: How to run script keepTransaction.py

Note 1943067 - Recommended configuration on SAP HANA for upgrading to revision 67 or higher

3.6.7 SAP HANA 1.0 Revision 68: BW fixes for multi node

Note 1920852 - SAP HANA Database Revision 68

Note 1927154 - SAP HANA DB: Possible incomplete data when one node restarts

Note 1927090 - SAP HANA DB: Wrong value for count func. in analytic views

Note 1912332 - SQL array DML operations fail with error code "-10709"

Note 1900919 - HANA XS Web Disp not running after Upgrade to rev. >= 60

Note 1927092 - SAP HANA DB:Wrong result updating with CURRENT_UTC_TIMESTMAP

3.6.8 SAP HANA 1.0 Revision 69.00: fixes for BW and landscape reorg

Note 1935871 - SAP HANA Database Revision 69

Note 1931536 - HANA: Possible DB corruption with NFSv3 based scale out

Note 1933112 - statistics server crash frequently

Note 1932132 - SAP HANA : Large time difference between application server and HANA database.

3.6.9 SAP HANA 1.0 Revision 69.01: Maintenance Rev. for Rev. 69

Note 1935871 - SAP HANA Database SPS 06 Maintenance Revision

What are SAP HANA Maintenance Revisions?

SAP has decided to introduce an additional SAP HANA maintenance revision stream with temporary availability and clear focus on stabilization, to address the needs of a growing number of our customers, running their mission critical workloads on top of SAP HANA. The SAP HANA maintenance revisions focus on production, business critical SAP HANA scenarios.

The existing SAP HANA revisions strategy stays untouched and will be continued.

A maintenance revision contains only major bug fixes found in key SAP HANA scenarios.
The availability of maintenance revisions is temporary and ends approx. 3 months after release of a new SPS. From this date, customer must adopt the regular SP revisions to receive further fixes.

Note 1948334 - SAP HANA Database Update Paths for Maintenance Revisions

Before you start the upgrade from revision 64, 65 and 66 please check SAP HotNews Note 1918267

Note 1918267 - SAP HANA DB: corrupt deltalog of column store table

If you use HANA System Replication as disaster recovery solution please read SAP Note 1947007 and 1947664 before doing the update.

Furthermore Errors can occur when the primary Site is on *maintenance revision 69.00* (base version) while secondary site was updated to *maintenance revision 69.01*

Note 1947007 - Secondary site startup fails after upgrade

Note 1947664 - Registration of secondary site for HANA System Replication not possible

Note 1955508 - Tables of BW objects are not compressed

3.6.10   SAP HANA 1.0 Revision 69.02: BW fixes for Rev. 69.x

Note 1935871 - SAP HANA Database SPS 06 Maintenance Revision

Note 1953130 - HANA database backup failed in DBACOCKPIT

Note 1964644 - HANA data backup via DB13 fails with SQL Code -10108

Note 1963791 - Avoid rowstore data loss or recover to consistent state

Note 1963779 - Reaching the 768 GB limit of rowstore can cause data loss

Note 1958859 - SQL Error 132 for Row Store objects

3.6.11   SAP HANA 1.0 Revision 69.03: fixes for Rev. 69.x

Note 1935871 - SAP HANA Database SPS 06 Maintenance Revision

Note 1963779 - Reaching the 768 GB limit of rowstore can cause data loss

Note 1958859 - SQL Error 132 for Row Store objects

3.6.12   SAP HANA 1.0 Revision 69.04: fixes for Rev. 69.x

Note 1935871 - SAP HANA Database SPS 06 Maintenance Revision

Note 1988396 - Defective persistence after key change for volume encryption

3.6.13   SAP HANA 1.0 Revision 69.05/06: fixes for Rev. 69.x

Note 1935871 - SAP HANA Database SPS 06 Maintenance Revision

Note 2001840 - SAP HANA SPS06: Restart or recovery terminates

3.6.14   SAP HANA 1.0 Revision 69.07: fixes for Rev. 69.x

Note 1935871 - SAP HANA SPS 06 Database Maintenance Revisions

Note 2014225 - Unforeseen tool usage leads to data corruption under certain circumstances

3.7 SAP HANA 1.0 SP07 (Rev. 7x)

Please refer to the SAP HANA Revision and Maintenance Strategy document on SAP Service Marketplace for an overview regarding the SAP HANA revision and maintenance strategy.

3.7.1 SAP HANA 1.0 Revision 70: Initial SP07 release HANA 1.0

Note 1921675 - SAP HANA Platform SPS 07 Release-Informations

Note 1944771 - SAP HANA SPS 07 Database Revision 70

Note 1917938 - Migration of the statistics Server with the Upgrade to SPS 7

Note 1925684 - ABAP-Anpassungen for SAP HANA SPS 7

Note 1965379 - Correction of thresholds for Alerts 60 & 61 in HANA Revision 70 (SPS7)

Note 1888072 - SAP HANA DB: Indexserver crash in __strcmp_sse42

Note 1940440 - Retrieving anonymous connection fails on SPS 07

Note 1650957 - SAP HANA Database: Starting the Script Server

Note 2031375 - SAP HANA: Transparent HugePages (THP) setting on Linux

Current maintenance revision   possible target SP revision:
An upgrade from 69.01, 69.02 and 69.03 is possible to 71.00 (or higher)
An upgrade from 69.04   is possible to 74.00 (or higher).
An upgrade from 69.05, 69.06 and 69.07 is possible to 74.01 and 80.0

⚠
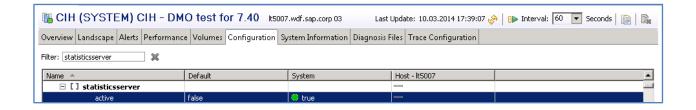
CAUTION: Do NOT under any circumstances upgrade from maintenance revision 69.0x to SP revision 70.00 (SPS 07) due to the incompatibility of these versions. (Not all fixes of maintenance revision 69.0x are included in SP revision 70.00).

3.7.2 SAP HANA 1.0 Revision 71: corrections for HANA SP07

Note 1974423 - SAP HANA SPS 07 Database Revision 71

Note 1968009 - SUM: IMPORT CR-SDA MODELS: An error has occurred

Note 1917938 - Migration des Statistics Server mit dem Upgrade auf SPS 7 ➔ Rev. 71

Note 1925684 - ABAP adjustments for SAP HANA SPS 7

3.7.3 SAP HANA 1.0 Revision 72: corrections for Rev. 71 - BW-BPC

Note 1981393 - SAP HANA SPS 07 Database Revision 72

Note 1976648 - Wrong data results after DDL alter table

Note 1957136 - Revision 71 Enhancements for Planning Functions

Note 1980667 - SAP HANA DB: Wrong result with comparison between a grouping column and an constant after an outer join

Note 1980763 - SAP HANA DB: Wrong data in in-memory planning scenarios (excluding BW-IWP application)

Note 1977583 - SUM:CORE SERVICE [TC~BL~DEPLOY_CONTROLLER] FAILED TO START

3.7.4 SAP HANA 1.0 Revision 73: DSP Release for SP07
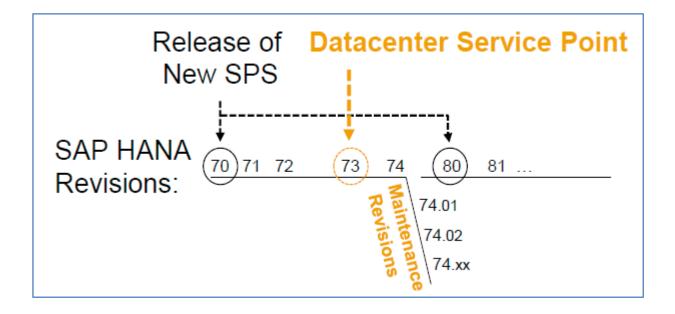
Note 1990011 - SAP HANA SPS 07 Database Revision 73

Note 1991074 - SAP HANA: Crash of services after upgrade due to temporary inconsistency in Inter Process Memory Management caused by upgrade

Note 1991599 - SAP HANA: indexserver crash while performing a table move (e.g. Reorganization)

Note 1976994 - Wrong data results on persisted indexes

Note 1964644 - HANA data backup via DB13 fails with SQLCode -10108

3.7.5 SAP HANA 1.0 Revision 74: corrections for HANA SP07

Note 2003736 - SAP HANA SPS 07 Database Revision 74

Note 1997755 - SAP HANA Database standstill after upgrade to Rev 71-73 due to waiting licensing threads

Note 1991599 - SAP HANA: indexserver crash while performing a table move (e.g. Reorganization)

Note 2001840 - SAP HANA SPS06: Restart or recovery terminates

3.7.6 SAP HANA 1.0 Revision 74.01: fixes for Rev. 74.x

Note 1948334 - SAP HANA Database Update Paths for Maintenance Revisions

Note 2016740 - SAP HANA SPS 07 Database Maintenance Revision 74.01

3.7.7 SAP HANA 1.0 Revision 74.02: fixes for SP07 scale out

Note 2029271 - SAP HANA SPS 07 Database Maintenance Revision 74.02

Note 2021789 - SAP HANA Revision and Maintenance Strategy

3.7.8 SAP HANA 1.0 Revision 74.03: fixes for Rev. 74.x

Note 2036266 - SAP HANA SPS 07 Database Maintenance Revision 74.03

Note 2003736 - SAP HANA SPS 07 Database Revision 74

3.7.9 SAP HANA 1.0 Revision 74.04: fixes for Rev. 74.x

Note 2043465 - SAP HANA SPS 07 Database Maintenance Revision 74.04

Note 2003736 - SAP HANA SPS 07 Database Revision 74

Note 2052419 - SAP HANA: CHECK_TABLE_CONSISTENCY on Ext. Storage tables may lead to crash
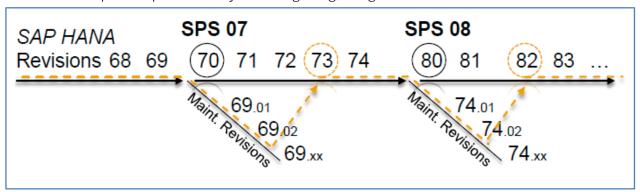
Note 1977584 - Technical Consistency Checks for SAP HANA Databases

3.8 SAP HANA 1.0 SP08 (Rev. 8x)

Rev. 75-79 was skipped.

Recommended path for production systems bug fixing, using SAP HANA Maintenance Revisions:

Release Notes for HANA 1.0 SP08

http://help.sap.com/hana/Whats_New_SAP_HANA_Platform_Release_Notes_en.pdf

SAP HANA Master Update Guide SP08

http://help.sap.com/hana/SAP_HANA_Master_Update_Guide_en.pdf

Note 2021789 - SAP HANA Revision and Maintenance Strategy

Note 2004651 - SAP HANA Platform SPS 08: Release- Informations

Note 2020199 - SAP HANA SPS 08 Database Revision 80

Note 2066225 - SAP HANA DB: Known issues detected in SPS08

Note 2023669 - SAP HANA SPS 08 offline and online help are out of synch

Note 2023039 - HLM update, scenario "Apply Support Package Stack", download is executed but update component or components are marked as "Skip"

Note 2014334 - Migration from SAP HANA AFL (SPS 07 or earlier) to Product-Specific AFLs (SPS 08)

Note 2032600 - Upgrade of SAP HANA studio from Revision 80 to a later revision

Note 2022779 - Technical Change of SAP HANA Studio Version String

⚠️

Note 2001528 - Linux: SAP HANA Database SPS 08 revision 80 (or higher) on RHEL 6 or SLES 11

```
lt5007:/data/software # dir *.rpm
libgcc_s1-4.7.2_20130108-0.17.2.x86_64.rpm
libstdc++6-4.7.2_20130108-0.17.2.x86_64.rpm
zypper install lib*.rpm
```

Note 2023163 - Downloading multispanning TAR archives

```
tar -xMv --file=IMDBSERVER10081_0-10009569_P1.TAR --file=IMDBSERVER10081_0-
10009569_P2.TAR
```

Valid Update Paths from SAP HANA SPS 07 Maintenance Revisions

You can update your database from a maintenance revision to an SP revision by following the same procedure as used to update from one revision to another revision. When updating from a maintenance revision to an SP revision, you need to ensure that all fixes from the current revision are also included in the target SP revision. See the following list for the valid update paths from maintenance revisions to SP revisions.

Note 1948334 - SAP HANA Database Update Paths for Maintenance Revisions

Do NOT under any circumstances upgrade from SAP HANA Maintenance Revision 74.01 to SAP HANA SP revision 80.00 (SPS 08) due to the incompatibility of these versions.

Current maintenance revision   possible target SP revision:

An upgrade from 74.01   is possible to 81.0

An upgrade from 74.02   is possible to 74.03 and 81.0

An upgrade from 74.03/04   is possible to 82.0

3.8.1 SAP HANA 1.0 Revision 81: fixes for SP08

Note 2036554 - SAP HANA SPS 08 Database Revision 81

Note 2025702 - SAP HANA Live Authorization Assistant will not work in HANA Rev 80

Note 1948334 - SAP HANA Database Update Paths for Maintenance Revisions

Note 2052419 - SAP HANA: CHECK_TABLE_CONSISTENCY on Extend. Storage tables may lead to crash

Note 2105761 - High memory consumption by RANGE-partitioned column store tables due to missing optimize compression

In HANA SPS 08 or lower set the parameter min_hours_since_last_merge_of_part in indexserver.ini section [optimize_compression] to 0

3.8.2 SAP HANA 1.0 Revision 82: DSP Release for SP08

Note 2047977 - SAP HANA SPS 08 Database Revision 82

Note 2052914 - ODBC driver issue after upgrade to Revision >= 82

3.8.3 SAP HANA 1.0 Revision 83:

Note 2062555 - SAP HANA SPS 08 Database Revision 83

Note 2072211 - Upgrade of the Embedded Statistics Service (ESS) from Revision 74.02 to Revision 81 or 82 fails with "unknown catalog object"
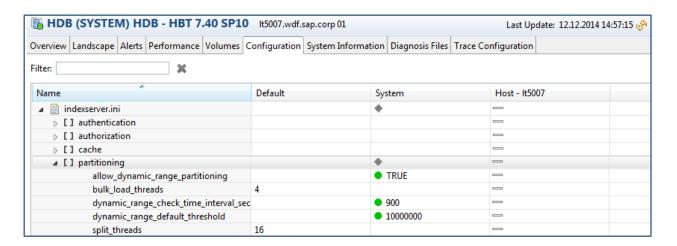
Note 2052914 - ODBC driver issue after upgrade to Revision >= 82

Note 2081135 - Enable "Dynamic Range Partitioning" feature for DataStore objects (advanced)

To Enable DRP open the SAP HANA studio open the tab "Configuration" for the desired system.

Add the following Parameters to the HANA 1.0 Rev. 83 configuration after you updated the binaries to the node "indexserver.ini" ➔ "partitioning":


```
allow_dynamic_range_partitioning = TRUE
dynamic_range_check_time_interval_sec = 9000000
dynamic_range_default_threshold = 10000000
```


3.8.4 SAP HANA 1.0 Revision 84: General and BW fixes for SP08

Note 2076890 - SAP HANA SPS 08 Database Revision 84

Note 2074556 - Revision 84 Enhancements for Planning Functions

Note 2063165 - SAP HANA DB: Work process termination due to access violation in HANA client

Note 2039810 - Table does not get merged automatically

Note 2083100 - Memory leak in combination with Hybrid LOBs

Note 2082119 - SAP HANA crashes during startup in ptime::InfoBase::is_occupied_slot

Note 2074556 - Revision 84 Enhancements for Planning Functions

3.8.5 SAP HANA 1.0 Revision 85:

Note 2085810 - SAP HANA SPS 08 Database Revision 85

Note 2089411 - Indexserver crash during CREATE PROCEDURE

Note 2006652 - SAP HANA Statistics Server - Switch to Embedded Statistics Service fails

3.8.6 HANA 1.0 Revision 85.1: Maintenance Revision for SP08

Note 2107518 - SAP HANA SPS 08 Database Maintenance Revision 85.01

3.9 SAP HANA 1.0 SP09 (Rev. 9x)

Rev. 86-89 was skipped.

3.9.1 SAP HANA 1.0 Revision 90: Initial Version for SP09 (do not use)

Note 2085811 - SAP HANA SPS 09 Database Revision 90

Note 1952701 - DBSL supports new SAP HANA SP9 version number

Note 2094791 - Dump "S_CHECK_MIN_REVISION_74-01-"
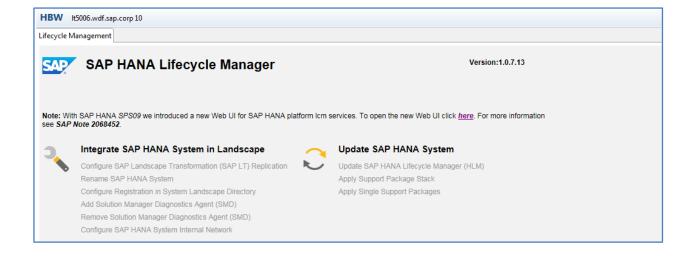
Note 2068452 - SAP HANA lifecycle manager with SAP HANA Database SPS09

Note 2086406 - SAP DB Control Center - Release & Information Note

Note 2099820 - MOPZ missing product instances::MOPZ does not find HANA Addon Products

Note 2078425 - Troubleshooting note for SAP HANA platform lifecycle management tool hdblcm

Note 2082466 - hdblcm SAP HANA – Troubleshooting

With HANA 1.0 SP09 you have to switch to the new HANA LCM environment

SAP HANA Installation and Administration Guide for SP09

http://help.sap.com/hana/SAP_HANA_Server_Installation_Guide_en.pdf

http://help.sap.com/hana/SAP_HANA_Administration_Guide_en.pdf

```
lt5006:/usr/sap/hostctrl/exe #
./saphostexec -upgrade -archive SAPHOSTAGENT199_199-20005731.SAR
./hdblcm --action=update_host

https://server.domain:1129/lmsl/HDBLCM/<SID>/index.html
```

3.9.2 SAP HANA 1.0 Revision 91: corrections for Rev. 90

Note 2105127 - SAP HANA SPS 09 Database Revision 91

Note 2105764 - Data Inconsistency after Upgrade to SAP HANA SPS09 Revision 90

Note 2073243 - Release Notes for SAP HANA Application Lifecycle Management for SAP HANA SPS 09

Note 2106836 - Potential data loss during table reload

Note 2104798 - concat attributes with float / double data types to be recreated in SPS9

Note 2105761 - High memory consumption by RANGE-partitioned column store tables due to missing optimize compression

In HANA SPS 09 remove the expression "and (not RP or (RP and TMD > 86400))" from the parameters auto_decision_func and smart_decision_func in indexserver.ini section [optimize_compression]

Integration of SAP HANA Application Lifecycle Management in SAP HANA Studio
On Linux, the integration of SAP HANA Application Lifecycle Management in SAP HANA studio does not work. In this case, HALM has to be called directly in the Web browser using one of the following URLs:

http://server.somain:80<nr>/sap/hana/xs/lm

http://server.domain:80<nr>/sap/hana/xs/lm/?page=TransportTab

http://server.domain:80<nr>/sap/hana/xs/lm/?page=DUManagementTab

http://server.domain:80<nr>/sap/hana/xs/lm/?page=productManagementTab

Back to Table of Content

4.   Further tasks in the target system
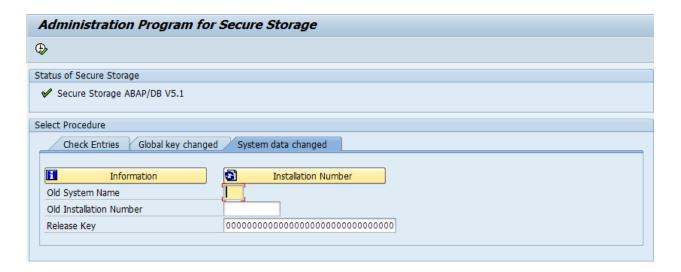
Depending on the scenario further follow up tasks are necessary now:
- System copy post activities, if the <SID> has changed
- Processing of the connected source systems
- NetWeaver 7.3x BW – TQM
- Migration of InfoCubes after system migration
- etc.
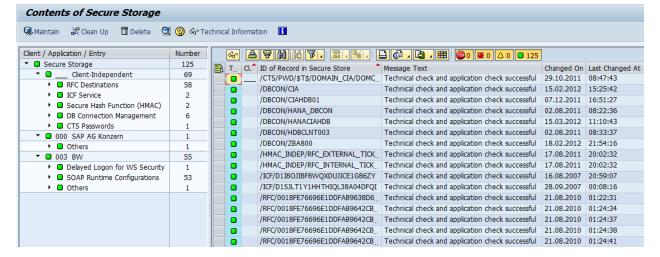
4.1.1 Check transaction SECSTORE after system copy

After a system copy when either the server or the SID has changed the secure store of the ABAP server has to be converted. This can be done with transaction SECSTORE.

The procedure is explained in Note 816861 - Migrating entries in the secure storage

For further problems with the secure store you can also refer to the following notes:
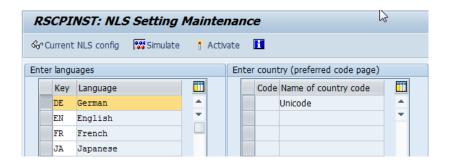
Note 1584228 - Internal error in secure store/Semaphore run out on a system

Note 502422 - Long texts for error messages SECSTORE021 to SECSTORE031

4.1.2 Reset the logon groups
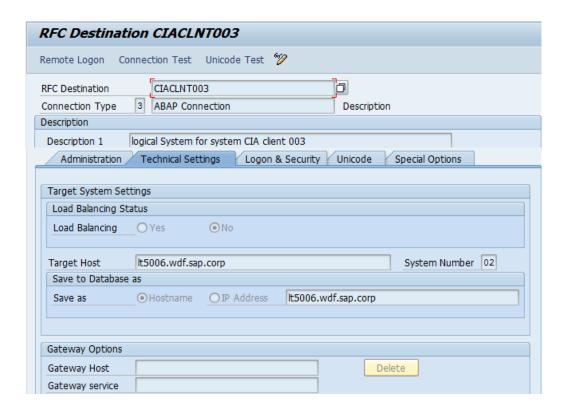
4.1.3 Check settings in report RSCPINST

4.1.4 Check myself connection after system migration

Especially after the system migration the fields target and gateway host might contain still the old server details. This would prevent the DSO conversion in general.
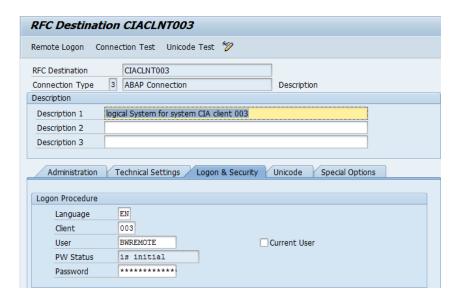
Check the language flag after import of the system copy. As it is now a UC system the loaded language to be taken into account.
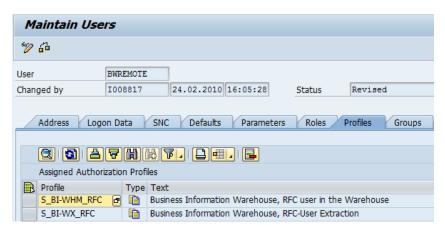
Note 673533 - Alignment problem during extraction into/from Unicode systems

To create the user for BW backend processing use transaction RSBWREMOTE to create the user **bwremote**. In order to enable the usage of the tasks lists during the SUM/DMO procedure you have to setup in transaction RSTPRFC the RFC destinations for the BW clients for import post processing.

Transaction SPRO ➔ F5 ➔ Business Intelligence ➔ Transport Settings ➔ Create Destination for ...

Create Destination in Client for Import Postprocessing

Client	BW Client 003 (BW)
Destination	CIACLNT003
User	BWREMOTE
Password	**

RFC Destination CIACLNT003

Remote Logon   Connection Test   Unicode Test

RFC Destination   CIACLNT003
Connection Type   3   ABAP Connection   Description

Description
Description 1   logical System for system CIA client 003
Description 2
Description 3

Administration / Technical Settings / Logon & Security / Unicode / Special Options

Logon Procedure
Language   EN
Client   003
User   BWREMOTE   ☐ Current User
PW Status   is initial
Password   ************

Maintain Users

User   BWREMOTE
Changed by I008817   24.02.2010 16:05:28   Status   Revised

Address / Logon Data / SNC / Defaults / Parameters / Roles / Profiles / Groups

Assigned Authorization Profiles

	Profile	Type	Text
	S_BI-WHM_RFC		Business Information Warehouse, RFC user in the Warehouse
	S_BI-WX_RFC		Business Information Warehouse, RFC-User Extraction

If you have the SEM Add-On installed, you also have to run the transaction FINB_TR_DEST to create the FINBASIS RFC destinations.

4.1.5 Check DSO activation parameters

Transaction RSCUSTV6

These are the suggested settings for the default data transfer. You might different values after a system copy or a new installation.

Especially the value "Partition size" is more less an "on/off Button" for the partitioning of the PSA tables that means a value below 1.000.000 is not suitable and a value higher than 1.000.000 is not applicable.

A higher value in the field the "FrequencyStatus-IDOC" will show less updates in the monitor, a lower value will show a shorter frequency in the monitor update.

Note 1646723 - BW on SAP HANA DB: IMO DSO Activation Parameters

Transaction SM30 ➔ V_RSODSOIMOSET

MCR stands for MemoryConsumptionReduced

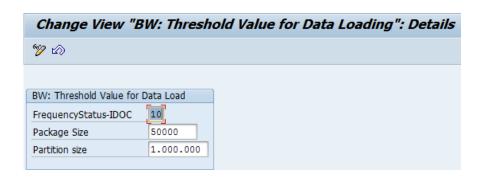The checkbox "Prevent MCR during Act." determines whether a procedure with reduced memory consumption is used for the activation. (MCR stands for MemoryConsumptionReduced.) This method significantly reduces the memory that is required by the activation but runs a little slower than the activation without this flag. In most cases it is recommended to use the MCR method. Only if you plan to activate small amounts of data and you are willing to invest more memory in order to gain maximum speed it makes sense not to use MCR activation. For large activations (>= 10 mio records) you should always use MCR.
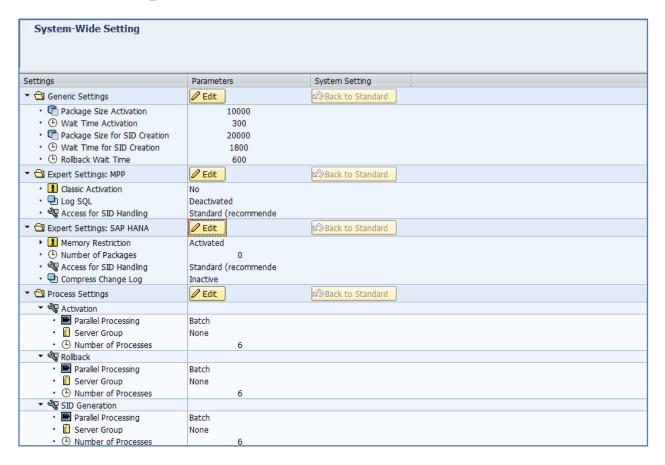
MCR package size is the package size used for the MCR activation. This parameter is ignored if MCR is not used. A larger package size causes higher memory consumption and a slightly lower runtime. The default value is 0 which means that the DataStore implementation determines the value by itself. Currently the package size used in this case is fixed: 100000. Enter a smaller value if you want to further reduce memory consumption. A value lower than about 20000 is not recommended because it causes too much overhead.

The last parameter determines the number of packages that are processed in parallel. It is used for both methods of activation. A higher value causes more parallel threads to be used for the activation. This implies a higher consumption of memory and CPU resources but speeds up the activation due to higher parallelization. The default value 0 means that the DataStore implementation determines the value by itself. Currently it uses num_cores/8 for the MCR activation and num_cores/4 for the non MCR activation. Num_cores is the number of cores that is supposed to be used by the HANA database. By default it is the number of cores the machine has.
The upper limit for the number of packages processed in parallel is num_cores/3. If the value entered is higher than num_cores/3 num_cores/3 will be used.
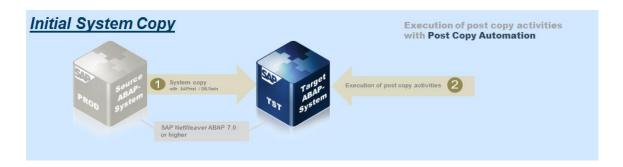
Transaction RSODSO_SETTINGS

4.1.6 Run the post steps after the system copy

With the GA of BW on HANA (since April 10th 2012) there will be a new tool available, to ease the Pre and Post Steps of a SAP NetWeaver BW system copy (initial systemcopy formerly Note 886102) called post copy automation for BW (BW-PCA) with tasks lists for the specific steps for export and import.
See the overall document - http://scn.sap.com/docs/DOC-12262

Report RS_BW_POST_MIGRATION
run in Background with Variant SAP&POSTMGRDB
The Report is intend to run directly in Background with the Variant for HDB, when the when the copy was based on a Non HDB (any DB) based system.

ABAP: Variants - Initial Screen

Program	RS_BW_POST_MIGRATION
Variant	SAP&POSTMGRDB	Create

Subobjects
- ⦿ Values
- ○ Attributes

Display   Change

CIA(1)/003 ABAP: Variant Directory of Program RS_BW_POS...

Variant catalog for program RS_BW_POST_MIGRATION

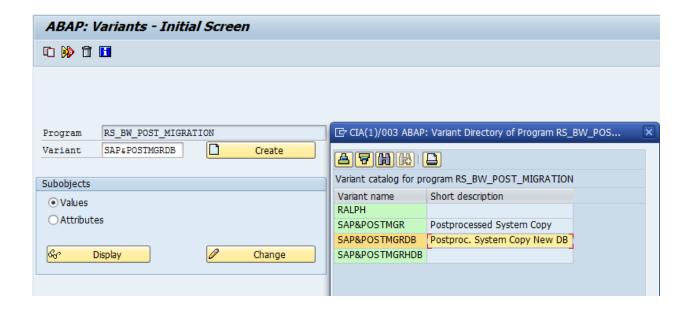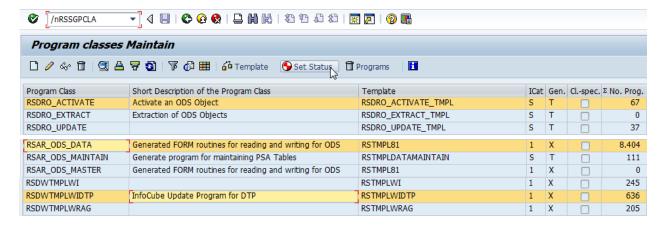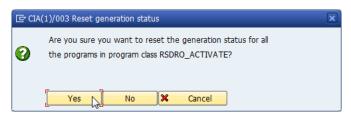| Variant name	Short description
RALPH	
SAP&POSTMGR	Postprocessed System Copy
SAP&POSTMGRDB	Postproc. System Copy New DB
SAP&POSTMGRHDB	

The post migration tasklist, SAP_BW_AFTER MIGRATION, should be executed at the same time point as one would execute the report RS_BW_POST_MIGRATION and can be used to replace the use of this report all together.

ODS/DTP migration after BW System copy
Transaction RSSGPCLA (not BW on HANA related)

/nRSSGPCLA

Program classes Maintain

Template   Set Status   Programs

Program Class	Short Description of the Program Class	Template	ICat	Gen.	Cl.-spec.	Σ No. Prog.
RSDRO_ACTIVATE	Activate an ODS Object	RSDRO_ACTIVATE_TMPL	S	T	☐	67
RSDRO_EXTRACT	Extraction of ODS Objects	RSDRO_EXTRACT_TMPL	S	T	☐	0
RSDRO_UPDATE		RSDRO_UPDATE_TMPL	S	T	☐	37
RSAR_ODS_DATA	Generated FORM routines for reading and writing for ODS	RSTMPL81	1	X	☐	8.404
RSAR_ODS_MAINTAIN	Generate program for maintaining PSA Tables	RSTMPLDATAMAINTAIN	S	T	☐	111
RSAR_ODS_MASTER	Generated FORM routines for reading and writing for ODS	RSTMPL81	1	X	☐	0
RSDWTMPLWI		RSTMPLWI	1	X	☐	245
RSDWTMPLWIDTP	InfoCube Update Program for DTP	RSTMPLWIDTP	1	X	☐	636
RSDWTMPLWRAG		RSTMPLWRAG	1	X	☐	205

CIA(1)/003 Reset generation status

Are you sure you want to reset the generation status for all the programs in program class RSDRO_ACTIVATE?

Yes   No   Cancel

4.1.7 Tasks after a homogeneous/heterogeneous HDB system copy

If your source system was already a BW System based on HANA you must recreate certain Indexes after the Installation to ensure the functionality. This is valid for:
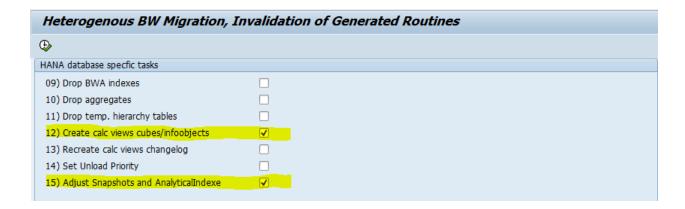- F4 Help
- Workspaces

Report RS_BW_POST_MIGRATION

Run the Report RS_BW_POST_MIGRATION with the Option 12 and 15 when the copy was based on a HDB based system to create missing calc views and workspaces.

Note 1695112 - Activities in BW after migrating to the SAP HANA database

Note 1903072 - Error "Could not create logical index" occurred when activating InfoObject

In Addition apply the following Notes to enable the BW Housekeeping and Pre/Post Migration Task Lists.

Note 1829728 - BW Housekeeping Task List

(contains manual steps `ZNOTE_1829728_PRE_73x`, and automated steps applied with SNOTE)

Furthermore the following Notes will be added automatically:

Note 1710719 - Corrections on SAPI-Tasks for System Copy Automation

Note 1767420 - Task Manager for Technical Configuration (6. Improvements)

Note 1734333 - BW Pre and Post Upgrade and Migration Tasks

(contains manual report `ZNOTE_1734333_PRE_73x`, and NO automated steps applied with SNOTE)

Programs RSDU_TABLE_CONSISTENCY/RSDU_PSA_PARTNO_CHECK
to check additional correctness of tables in row/column store from application level.

Optionally the mentioned program can be used to check the table consistency in the HANA database after the system copy/migration.

Note 1937062 - Usage of RSDU_TABLE_CONSISTENCY

Note 2025271 - RSHDB: RSDU_TABLE_CONSISTENCY NW7.30 SP13

Note 1953984 - SHDB: Development tool classes NW 7.30 SP12

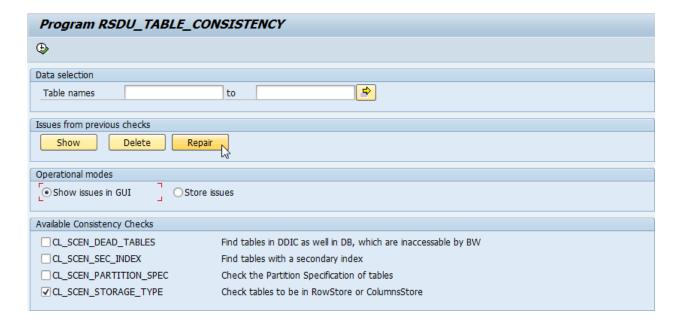Note 1953493 - RSHDB: RSDU_TABLE_CONSISTENCY NW7.30 SP12

Note 1979867 - Program for repairing inconsistent partitioning of PSA tables

Note 1892492 - SHDB: Development Tool-Classes NW7.30 SP11 (mandatory for Note 1888511)

Note 1888511 - RSHDB: development of RSDU_TABLE_CONSISTENCY NW7.30 SP11

Note 1814339 - SHDB: Development tool classes NW7.30 SP10 (mandatory for Note 1888511)

Note 1814097 - RSHDB: Development RSDU_TABLE_CONSISTENCY NW7.30 SP10
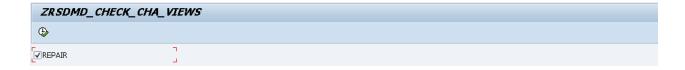

Correct missing views for selected Master Data

Implement the manual report attached to the following Note (ZRSDMD_CHECK_CHA_VIEWS)

Note 1892819 - Improved performance when loading master data
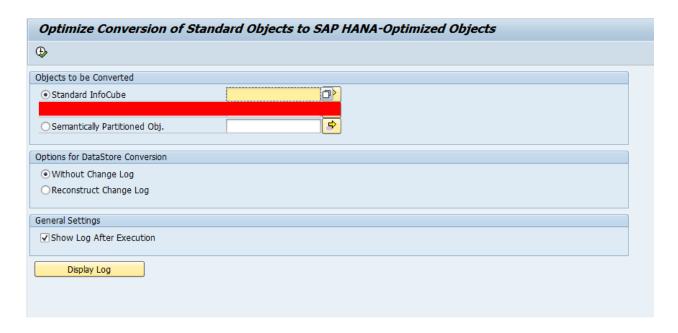
And run the Repair Mode Option.

Note 1891981 - HANADB: Performance - missing views when updating master data

Note 1847728 - SQL errors 257 and 443 when creating BW column views

Note 1898395 - Secondary Index on InfoObject master data tables

Transaction RSMIGRHANADB

Convert the BW InfoCubes to in-memory optimized

The conversion of DSO into in-memory optimized is obsolete, when you fulfill the following pre-requisites:
- HANA 1.0 Rev. 57 or higher
- 7.30 SP10 or 7.31 SP08 or the mentioned Notes

Note 1873687 - Improve activation performance for SAP HANA-opt. BI Content

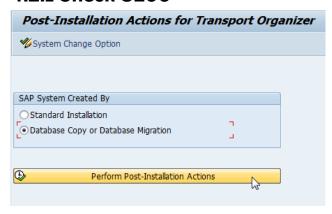Note 1849498 - SAP HANA: Reconversion of SAP HANA-optimized DataStores

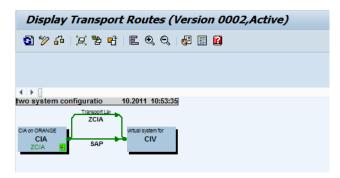Note 1849497 - SAP HANA: Optimizing standard DataStore objects

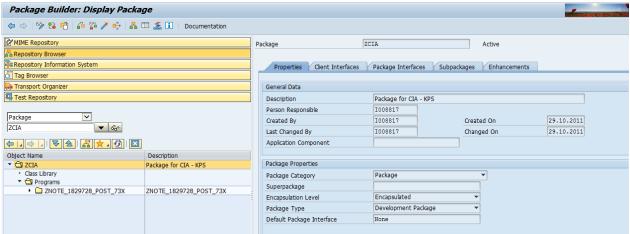Note 1873686 - BI Content 737/747 SP4: Use of in-memory optimized DSOs

4.2 Check the settings for TMS after the system copy

4.2.1 Check SE06

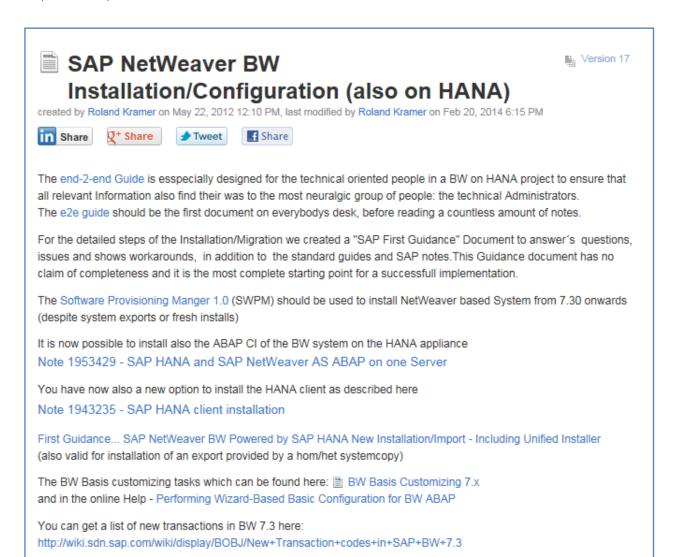

4.2.2 Check SE80 – Package

4.3 Check further SAP NetWeaver BW basis settings

Check with the SDN page http://scn.sap.com/docs/DOC-7856#section18 for additional SAP NetWeaver BW Basis settings which are not changed since 7.0x

The complete Information are collected in the SAP first Guidance Document -
http://scn.sap.com/docs/DOC-28504

SAP How-To Guides:

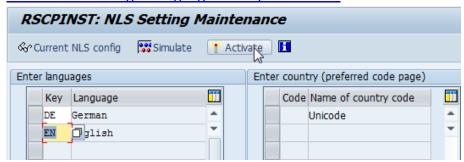How-To …Delta Merge for SAP HANA and SAP NetWeaver BW powered by SAP HANA

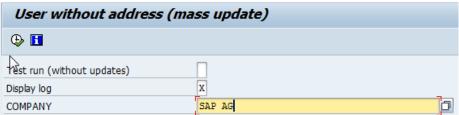## 4.4 Additional tips for a new SAP NetWeaver 7.30 installation

With a new installation of any new SAP NetWeaver system based on SAP NetWeaver 7.02 or higher, the following notes must be applied to avoid errors with the SLT replication which are NOTE related to the SLT product.

- If you are not logon in EN, you get an error like this: "Kein Verbuchungs-Server for Kontext: D: gefunden". This is due the default UC installation now, follow
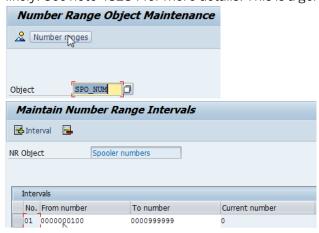
  Note 1037947 - Logon language is not yet activated

- After installation and the creation of the first user run the RSADRCK2 for fixing the initial address problem, in every client, e.g. 000, 001, etc.

- Increase the upper value of the spool number range to 999,999 to make a spool overflow less likely. See note 48284 for more details. This is a general recommendation by SAP.

- Configure the SSO/SSF scenario for HTTPS for the correct logon procedure to the SLT Web Dynpro, see the following SDN document:
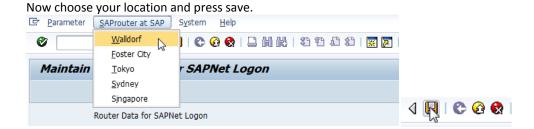 http://www.sdn.sap.com/irj/sdn/edw-ops?rid=/library/uuid/70bd59d6-3a4b-2b10-bfab-d0c3bd8abf15
  ```
  login/accept_sso2_ticket = 1
  login/create_sso2_ticket = 3
  ```
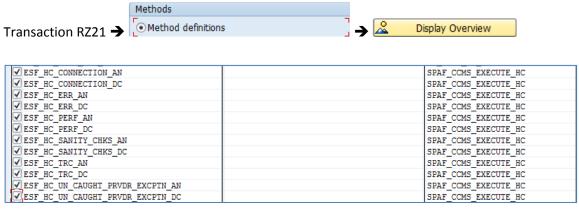
- The transaction SNOTE for implementing ABAP corrections must be configured first. Therefore go to Transaction OSS1 and choose in the Menu Parameter ➔ Technical settings and click on change.
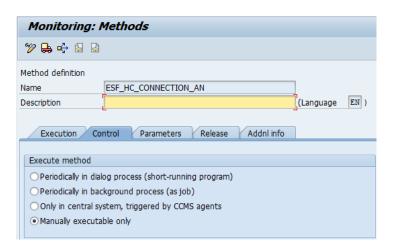

Now choose your location and press save.

With that the RFC connection OSS is automatically filled with user/password and Transaction SNOTE can connect to the OSS/SMP to download ABAP notes.

- Note 1484091 - CCMS Monitoring does not work

Transaction RZ21 ➔ ➔

- **Note 308977 - Repositories BIE_QMM, BIE_NET, HME_CONTENT and ED**
  You see constant error messages in dev_icm (transaction SMICM ➔ Display all dev_icm)
  use transaction OAC0 and remove the entries A2, B2, BS_ATF_CONTENT_SERVER (which includes servers like pwdf0388, pwdf2625) or any additional server which are not known by the system.
  Note 555560 - Error message in the dev_icm trace file

- **Note 411745 - Consistency of the ICF tables** ➔ program `ICFTREE_CONSISTENCY`

4.5 How to connect SAP HANA to CSN (SAP Access)

This is an overview of the notes which describe the different possibilities to connect SAPHANA to the SAP support system for various purposes.

- Note 1635304 - Central note for HANA support connections

- Note 1634848 - SAP HANA database service connections (collective note)

- Note 1058533 - TREX/BIA/HANA service connection to customer systems

- Note 1592925 - SAP HANA Studio service connection

- Note 1610702 - HANA Support processed and procedures

- Note 1067044 - How to use the TREX/BIA connection

- Note 1651638 - How to establish WTS remote support connections - Data Services

- Note 605795 - Windows Terminal Server connection in remote support

- Note 35010 - Service connections: Composite note (overview)

www.sap.com/contactsap

http://scn.sap.com/docs/DOC-7856

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