

**SAP Hana Migration Steps with the Database Migration option (DMO)**

**Table of Contents**

Database migration option (DMO) Prerequisites

DMO - Conceptional Overview DMO in Interaction with SAP-

DMO in Interaction with the New SAP Host Agent Procedure DMO Procedure: In-Place Upgrade

Comparison Standard and New Process

Step by Step – DMO Option Application Specific Preparation Steps

The DMO Procedure in Detail Extraction

Phase Configuration

Phase Checks

Phase Preprocessing

Phase Execution

Switching the PAS to the HANA server

Copy the SUM directory

Provide the SAP Kernel of the target OS

Provide the SUM/DMO executables of the target OS

Install a fresh PAS of the target OS

Install the target SAP HANA database

Details of the export/import process

Result from the parallel export/import process

SUM ABAP Extended SL UI (with SP14 onwards)

Phase Postprocessing

Software Update Manager Evaluation

SAP First Guidance ... database migration option (DMO)

Post Activities after the main DMO Procedure

Split off ASCS Instance from Existing Server

HANA Specific Post Steps

Activate new HANA server functions

Install Application Function Library (AFL)

Install the smart data access (SDA) drivers

Configuring DBMS User Man. for SAP HANA

Mass Maintenance of DBMS User

Transaction RS2HANA\_CHECK/ADMIN

Create CDS views after migration

## 1. Database migration option (DMO)

The official SUM/DMO Documentation for SPx, please consult these guides first!

<https://support.sap.com/en/tools/software-logistics-tools.html>

### Database Migration Option (DMO) using SUM

#### Database Migration Option (DMO) with SUM 1.0 SP 23

Combined update and migration to SAP HANA database for target systems below SAP BASIS 7.50

- ✓ [SAP Note 2631098](#) for DMO with SUM 1.0 SP 23
- ✓ [Guides for DMO with SUM 1.0 SP 23](#)
- ✓ [SAP Community information on DMO](#)

#### Database Migration Option (DMO) with SUM 2.0 SP 04

Combined update and migration to SAP HANA database for target systems targeting SAP BASIS 7.50 and higher

- ✓ [SAP Note 2644872](#) for DMO with SUM 2.0 SP 04
- ✓ [Guides for DMO with SUM 2.0 SP 04](#)
- ✓ [SAP Community information on DMO](#)

*Database Migration Option (DMO) with SUM 2.0 SP 04*

*Database Migration Option (DMO) with SUM 2.0 SP 04*

Combined update and migration to SAP HANA database for target systems targeting SAP BASIS 7.50 and higher

- [SAP Note 2644872](#) for DMO with SUM 2.0 SP 04
- [Guides for DMO](#) with SUM 2.0 SP 04
- [SAP Community information](#) on DMO

<p><b>Software Update Manager (SUM)</b></p> <p>SUM is now offered in two versions. Check <a href="#">this separate page</a> for more information on SUM.</p> <ul style="list-style-type: none"><li>✓ SUM 1.0 for Java stack, dual-stack, and ABAP stack (ABAP with target versions below 7.50)</li><li>✓ SUM 2.0 for pure ABAP stack and target versions based on 7.50 and above</li></ul> <p><a href="#">Download SUM</a></p>	<p><b>near-Zero Downtime Maintenance (nZDM) for Java 1.0 SP 22</b></p> <p>Minimize downtime while applying SPs, EHPs, and maintenance on SAP Enterprise Portal, SAP Business Process Management, and SAP Process Orchestration</p> <ul style="list-style-type: none"><li>✓ <a href="#">SAP Note 2638261</a></li><li>✓ <a href="#">Guide for nZDM for Java</a></li></ul> <p><a href="#">Download nZDM for Java</a></p>	<p><b>SPAM/SAINT update 4.6C to 7.53</b></p> <p>Apply SPs, install and de-install Add-ons in ABAP</p> <ul style="list-style-type: none"><li>✓ <a href="#">SAP Note 97620</a></li><li>✓ <a href="#">Information on SPAM/SAINT in SAP Help Portal</a></li></ul> <p><a href="#">Download SPAM/SAINT Update</a></p>
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## 1.1 Prerequisites

Prepare the SAPHostAgent and SUM/DMO per the following Notes: Note 1589311 - Replacements of outdated tools via SL Toolset (password 1725738)

Note 927637 - Web service authentication in sapstartsrv as of Release 7.00 Note 2284028 - SUM SL Common UI: Troubleshooting problems with the new SUM UI

- run saphostexec.exe -install from the extracted SAP Agent 7.21 source directory. add parameter to the file /usr/sap/hostctrl/exe/host\_profile service/admin\_users = dasadm <sid>adm
  - run this option when you upgrade to an newer Version (at least  $\geq 148$ ):  
`/usr/sap/hostctrl/exe/>./saphostexec -upgrade -archive /data/software/SAPHOSTAGENT40_40-20009394.SAR`  
run the command with root user /usr/sap/<SID>/SUM/abap/SUMSTART confighostagent to create the file sumstart.conf /usr/sap/hostctrl/exe/operations.d/sumstart.conf
- Always check for the latest Version! Patch 47 for 7.21 available since May 2020

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

Adding additional users working with the UI5 interface by adding user in the following line of the mentioned file: Name:SUMStart Authorization:\$[SID:#required#tolower]adm  
Command:/data/sap/HBT/SUM/abap/SUMSTART upgrade Username:  
\$[SID:#required#tolower]adm dmoadm Workdir: /data/sap/HBT/SUM/abap/ ResultConverter:  
flat

Optional: Enable SSL for the SAPHostAgent (Port 1129).

[http://help.sap.com/saphelp\\_nw74/helpdata/en/8d/12f7b9244b44219bd14d619d3a2123/content.htm?frameset=/en/f9/50aeeb64604e818b24626d287b63b0/frameset.htm&current\\_toc=/en/21/98c443122744efae67c0352033691d/plain.htm&node\\_id=19](http://help.sap.com/saphelp_nw74/helpdata/en/8d/12f7b9244b44219bd14d619d3a2123/content.htm?frameset=/en/f9/50aeeb64604e818b24626d287b63b0/frameset.htm&current_toc=/en/21/98c443122744efae67c0352033691d/plain.htm&node_id=19) As an alternative, copy the files as fallback from the directory /usr/sap/<SID>/DVEBMGS<nr>/sec to /usr/sap/hostctrl/exe/sec

Restart the SAPHostAgent /usr/sap/hostctrl/exe/>./saphostexec -restart

To reset or check the DMO procedure, use the following step-by-step procedure: o Start SAPup in scroll mode cd /usr/sap/<SID>/SUM/abap/bin ./SAPup <option> gt=scroll (httpserver0/set allpwd/set procpar) 2) Choose the option “Back” Back Exit Cleanup and start fresh. [Exit]: 01

To reset the Upgrade/DMO process run (replaces the old ABAP Report upgreset) Note 1790486 - SAP\_ABA is in an undefined state that is not safe to be upgraded cd /usr/sap/<SID>/SUM/abap/bin ./SAPup reset prepare delete the directory /usr/sap/<SID>/SUM/ and start from scratch with the SUM sar file unpack.

Changing Process Parameters during runtime using UI browser access: ./SAPup set procpar gt=scroll

Additional DMO/SUM options can be maintained in the file /usr/sap/<SID>/SUM/bin/SAPup\_add.par /ORA/update\_spacestat = 0

To enable a SUM with DMO run for the migration only scenario, add to file SAPup\_add.par the following line, before you start the Software Update Manager: migration\_only = 1

<http://scn.sap.com/community/bw-hana/blog/2015/03/17/dmo-optimizing-system-downtime>

Please refer always to the official DMO/SUM guide for details.

## DMO in a Nutshell

### Scenario:

- You want to migrate your existing SAP ABAP system to the SAP HANA database
- Your SAP release needs to be upgraded prior to migration

Use the database migration option (DMO) of the Software Update Manager (SUM); it combines SAP upgrade and database migration to SAP HANA in one tool!

### Benefits:

- Migration steps are simplified
- System update, Unicode Conversion, and database migration are combined in one tool
- Business downtime is reduced
- The source database remains consistent, so a fast fallback is possible

DMO general introduction - <http://scn.sap.com/docs/DOC-49580>

SUM/DMO technical runtime consideration

Depending on the Start and Target Release, the technical procedure for the upgrade part is partly different.

While the release change from 7.30 to 7.40 is a technical upgrade (as type of an exchange upgrade), the release change from 7.0x to 7.40 is an EHP installation/upgrade which includes much more packages and intensive and time consuming additional phases, which are not seen during the so called "switch"

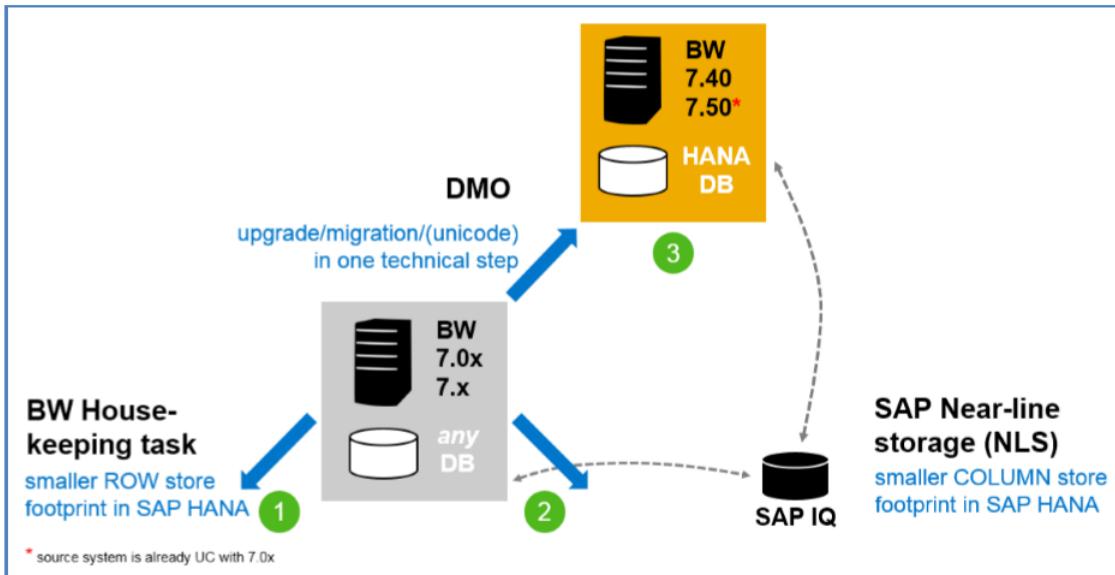
DMO general introduction - <http://scn.sap.com/docs/DOC-49580>

DMO technical background

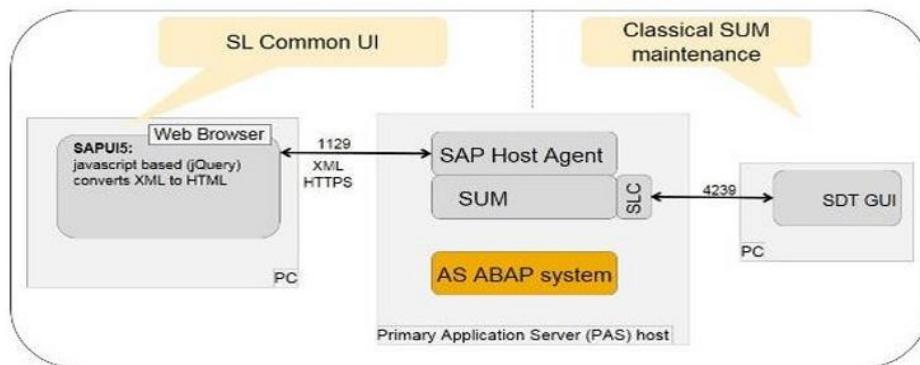
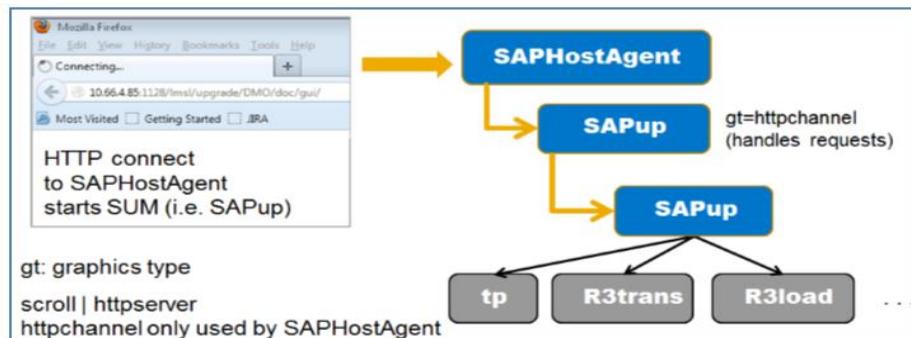
DMO: technical background  
DMO: optimizing system downtime...  
DMO: comparing pipe and file mode for R3load  
SUM: introduction to shadow system  
Optimizing DMO Performance

SUM: SL Common UI available with SP12  
SUM: New SL Common UI available for AS ABAP scenarios  
SUM: Upgrade was never being easier

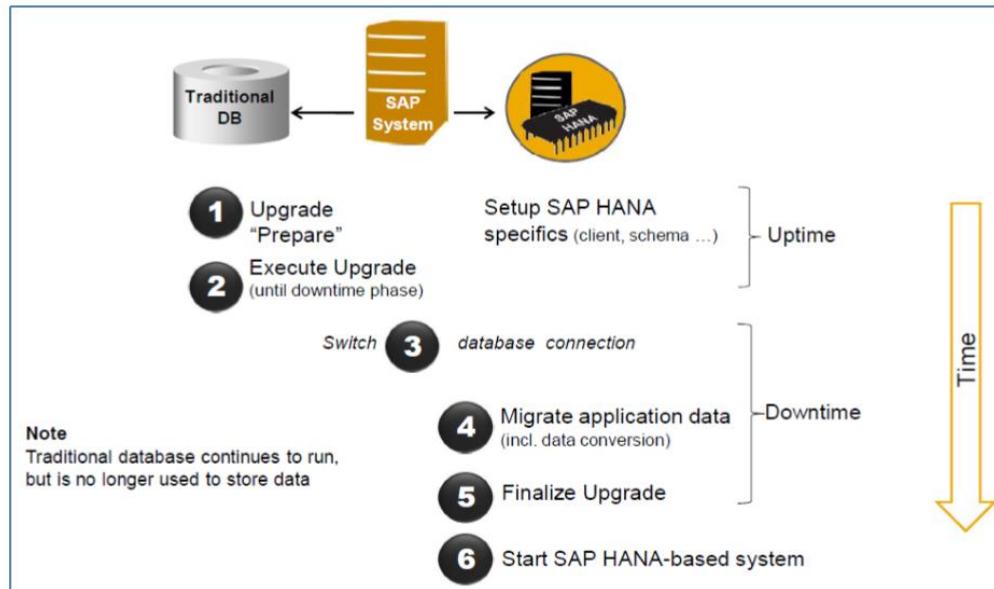
## DMO in Interaction with SAP-NLS



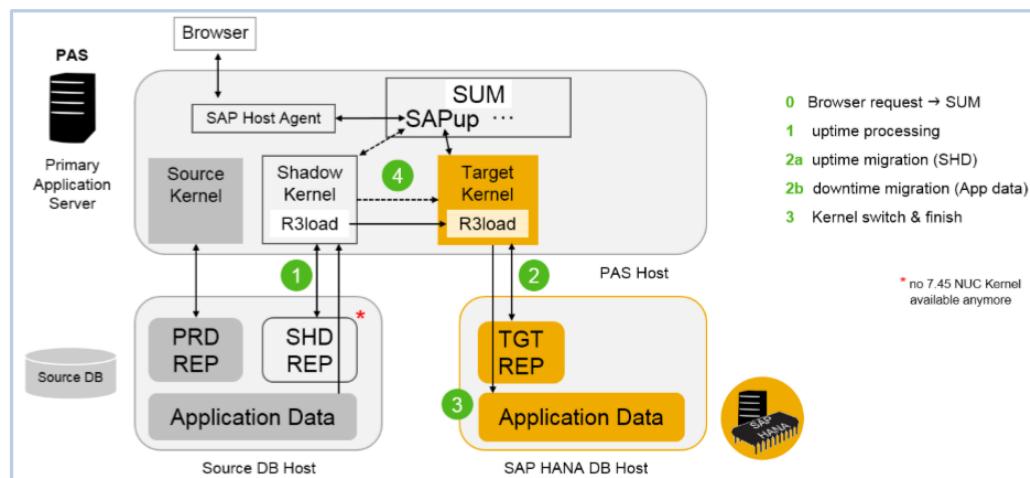
## DMO in Interaction with the New SAPHostAgent



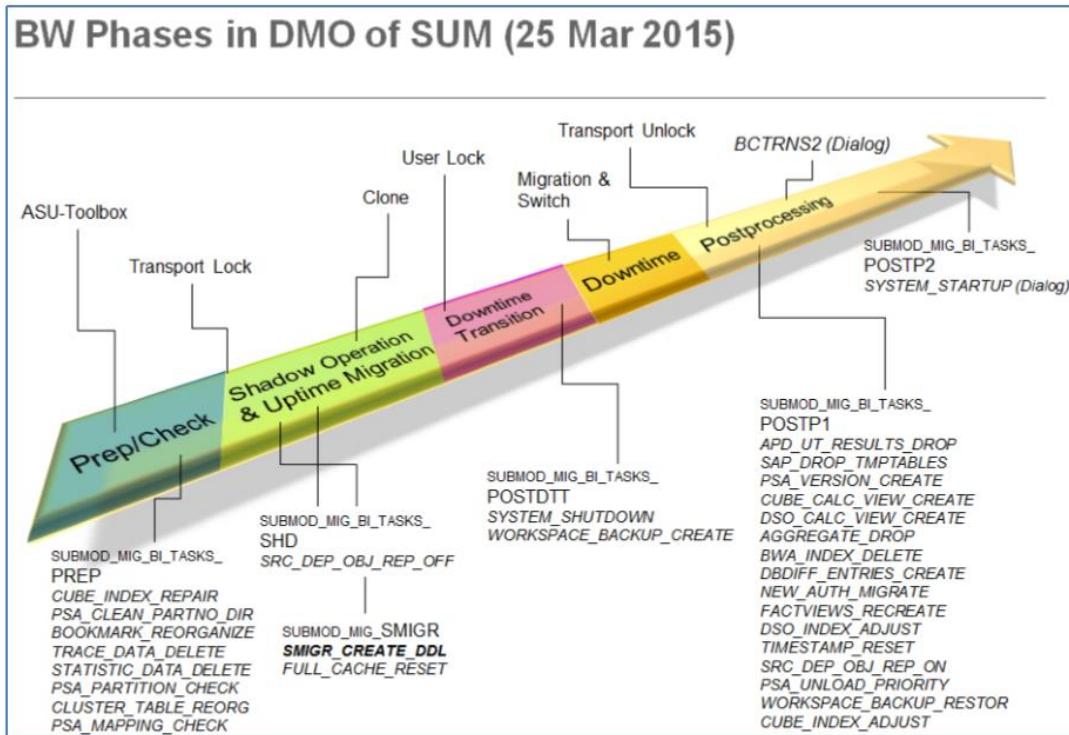
## DMO Milestones during the Procedure



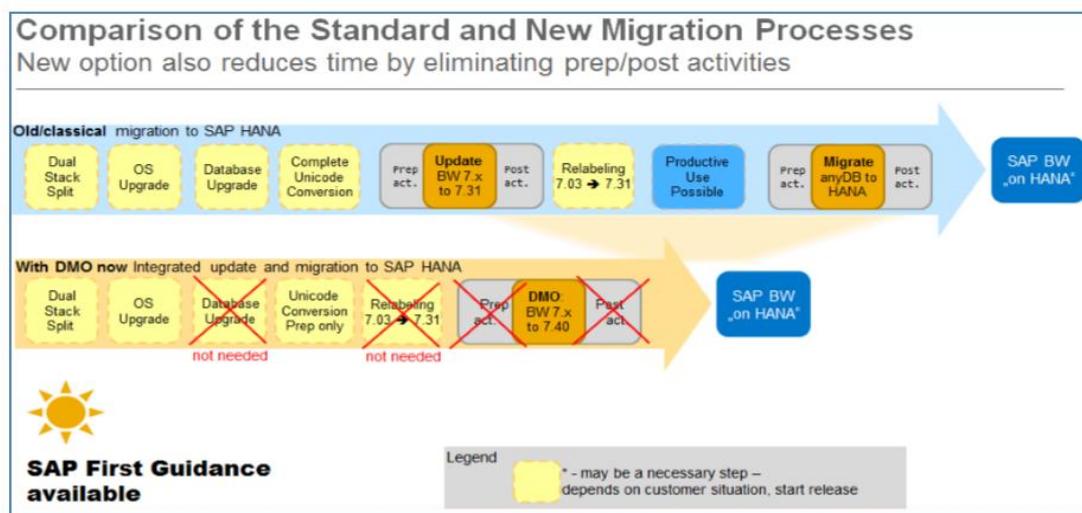
## DMO Procedure: In-Place Upgrade and Migration



## BW Phases in the Overall DMO Process

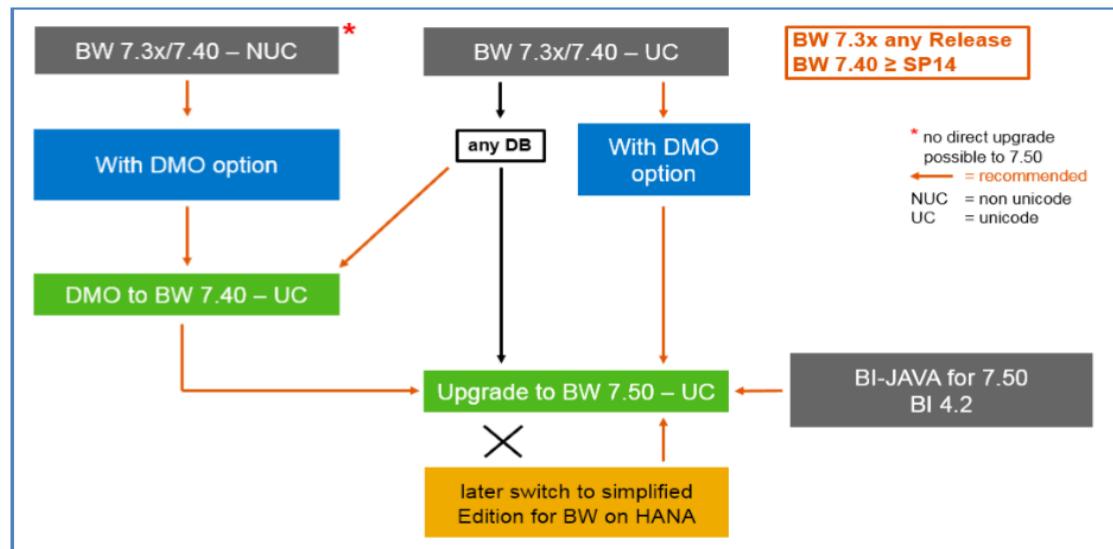
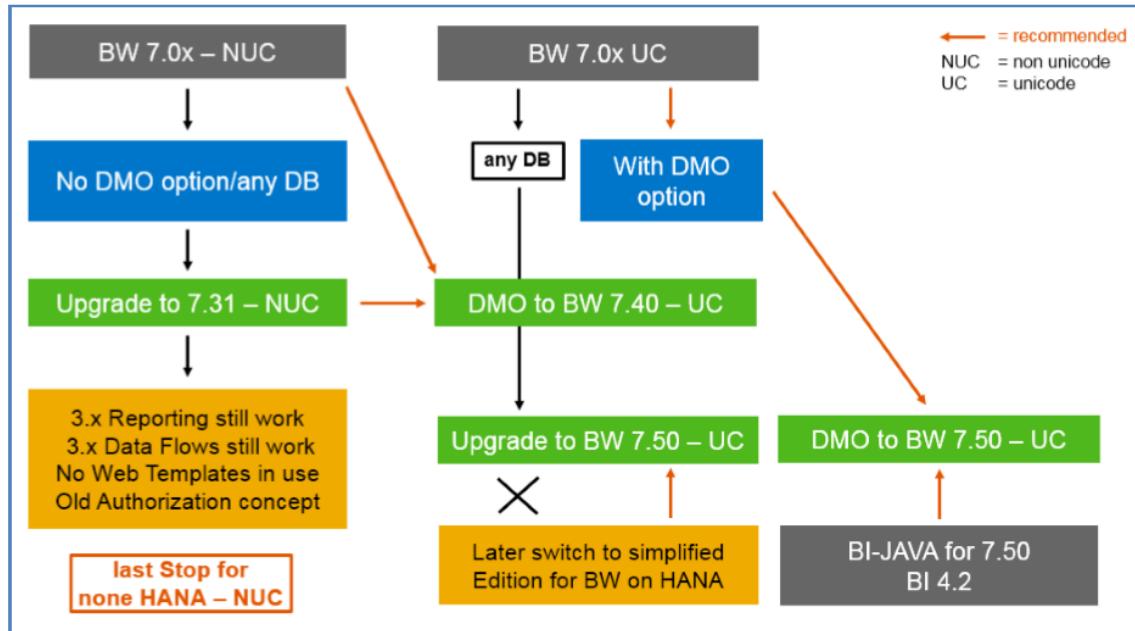


## DMO - Comparison Standard and New Process



## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

Since there is no 7.45 non unicode Kernel anymore, the DMO option cannot be used to directly migrate system to SAP BW 7.50 on HANA directly. Furthermore 7.50 is completely unicode, which also impacts the direct upgrade of non-unicode System based on 7.0x or 7.3x/7.40.



## Step by Step – DMO Option

### 3.1 Application Specific Preparation Steps

Interaction ASU Toolbox with DMO Procedure To save time, you can already start working with the Application-Specific Upgrade (ASU) toolbox in the original system. Check for the latest XML file in SAP Note 1000009 - ASU Toolbox 2008 To use the ASU toolbox, download the latest XML file from the attachment section of the SAP Note. The reminder for the ASU toolbox appears in the extraction phase.

The screenshot shows the SAP Note 1000009 - ASU Toolbox 2008. It displays the following information:

- Version:** 51, **Validity:** 06.01.2014 - active
- Language:** English
- Content:** Summary, Header Data, Validity, References, Attachments
- Symptom:** See also Note 1132617, which provides current information about the ASU Toolbox.
- Description of the ASU Toolbox:**
- Attachments:** A table listing four XML files:

File Name	File Size (KB)	Mime Type
ASU_BW_70x_74x_1.zip	9	application/x-zip-compressed
ASU_BI_2.zip	13	application/x-zip-compressed
ASU_ERP.zip	645	application/x-zip-compressed
ASU_BW_70x_73x_5.zip	8	application/x-zip-compressed

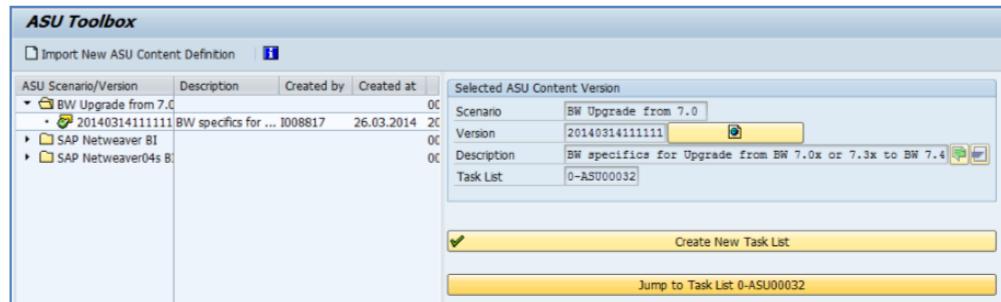
Start transaction /ASU/START and upload the XML file and create a new task list.

The screenshot shows the ASU Toolbox interface with the following details:

- ASU Toolbox** header
- Import New ASU Content Definition** button
- ASU Scenario/Version** tree view:
  - SAP Netweaver BI
  - SAP Netweaver04s BI
- Import New ASU Content Definition (F5) Version** form:
  - Scenario: [empty field]
  - Version: [empty field] (highlighted)
  - Description: [empty field]
  - Task List: [empty field]

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

Create a new Task List and Jump to Task List 0-ASU000xx



Check and execute the tasks before the technical DMO procedure starts. This will save time during the runtime of the DMO procedure.

SAP First Guidance ... database migration option (DMO) - BW on HANA



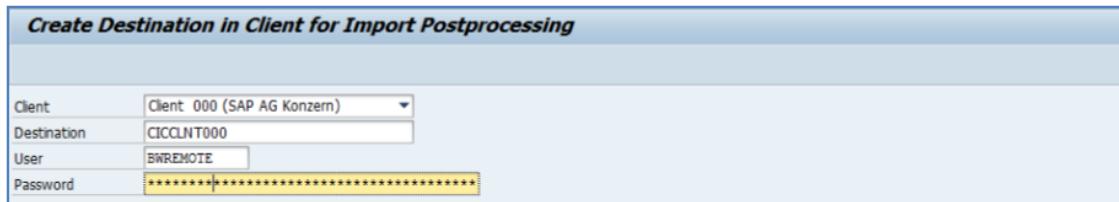
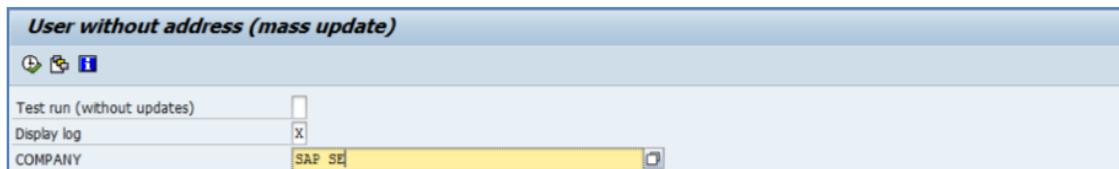
ASU Schedule Manager: Display - BW specifics for Upgrade from BW 7.0x											
User Notes On		Display/Change Task List									
				Severity	Descript.	Note	Docu.	UserRemark	Status	Spool List	J...
Task List											
- Scenario "BW Upgrade from 7.0" Version "20140314111111"											
- Preparation Steps											
- Manual Preparation Steps											
• Check some notes before upgrade				✗	Obligatory						
• Add-On Compatibility of SAP NetWeaver 7.4				✗	Obligatory						
• Stop RDA Daemon				✗	Obligatory						
• Domain RSCHAVL will be changed from CHAR60 to SSTRING 1333.				✗	Obligatory						
• Check activate ODS Objects.				✗	Obligatory						
• Upgrade Check Report: RSUPGRCHECK				✗	Obligatory						
• Remove temporary BI tables				✗	Obligatory						
• Check/Repair Status of Info Objects				✗	Optional						
• Check inconsistencies with RSZ* Tables				✗	Optional						
• Activate Info Objects				✗	Optional						
• Clean/delete the messages for error logs				✗	Optional						
• Cleanup entries from table RSDXWWW.				✗	Optional						
• Check codepage settings.				✗	Optional						
• Check Master Data consistency.				✗	Optional						
• Cleanup background jobs.				✗	Optional						

### BW backend processing with DMO Procedure

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

<https://help.sap.com/viewer/93bea049296a41508d972e117149f784/7.5.13/enUS/4a795f6749196b70e10000000a42189c.html>

Transaction SPRO → F5 → Business Intelligence → Transport Settings → Create Destination for



Furthermore, make sure that the password you choose here is the correct one. In advance check with Transaction SU01 the correct password. At the end of the DMO procedure the program RS\_UPG\_TOOL\_HMW is also using this destination. The password of BWREMOTE must be correct.

New Entries: Overview of Added Entries			
FINB TR: RFC Destination for Transport Methods			
Client	Name	Dest.	Description
000	SAP AG Konzern	N4SCLNT000	Client 000 for After Import
001	Produktiver Client	N4SCLNT001	BW Client for After Import

After this use the Transaction FINB\_TR\_DEST to create RFC Destinations for Transport Methods. This will prevent additional errors in the Phase MAIN\_NEWBAS/XPRAS\_AIIMMRG.

Additional Notes for optimizing the phase MAIN\_NEWBAS/XPRAS\_AIIMMRG:

#### Unicode preparations for the DMO Procedure

Note 2631098 - Database Migration Option (DMO) of SUM 1.0 SP23 Note 1968508 - Release Change & Single Code Page Conversion to Unicode with DMO The mentioned SAP Note above contains an unicode conversion guide together with the DMO procedure. If your Source System based on SAP BW is already on unicode (UC) you can skip this Chapter. Nevertheless, running the reports mentioned in the following SAP Notes is for your reference.

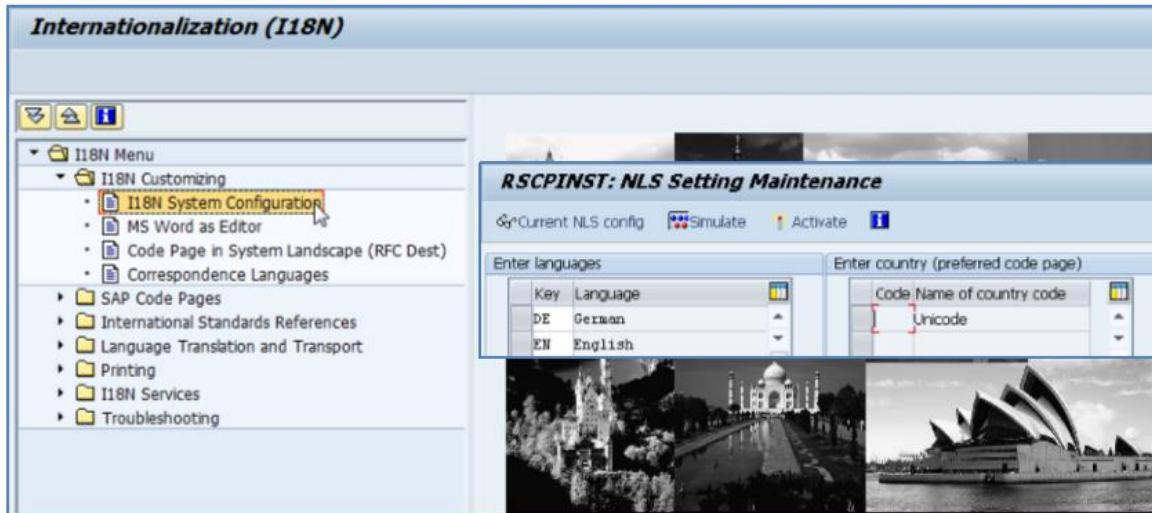
Note 1784377 - Checking pool tables and cluster tables Note 1807959 - Improved versions of reports SDBI\_POOL\_CHECK and SDBI\_CHECK\_BCD\_NUMBERS Note 2462824 - DMO: "sql error - 10802" occurred during phase PARCONV\_UPG Note 2227432 - How to: Declustering and depooling with NW 7.4 SP03 and higher on databases other than SAP HANA

In all other Systems based on SAP BW 7.0x and BW 7.3x must run the Transaction SPUMG first to prepare the existing data for the unicode conversion. For these Systems, the complete and successful preparation with SPUMG is a mandatory step. The Transaction SPUMG is a complete set of preparation modules which can run independently from the other preparation steps. SAP BW contains only one Code page and almost all the ABAP coding (might include customer coding) is already UC enabled since NetWeaver Release 6.20 and onwards. The Reason for this is the fact, that existing data must be prepared for the conversion while the new data which comes with the upgrade process must be merged within the DMO process to enable the UC conversion during the parallel export and import phase with R3load.

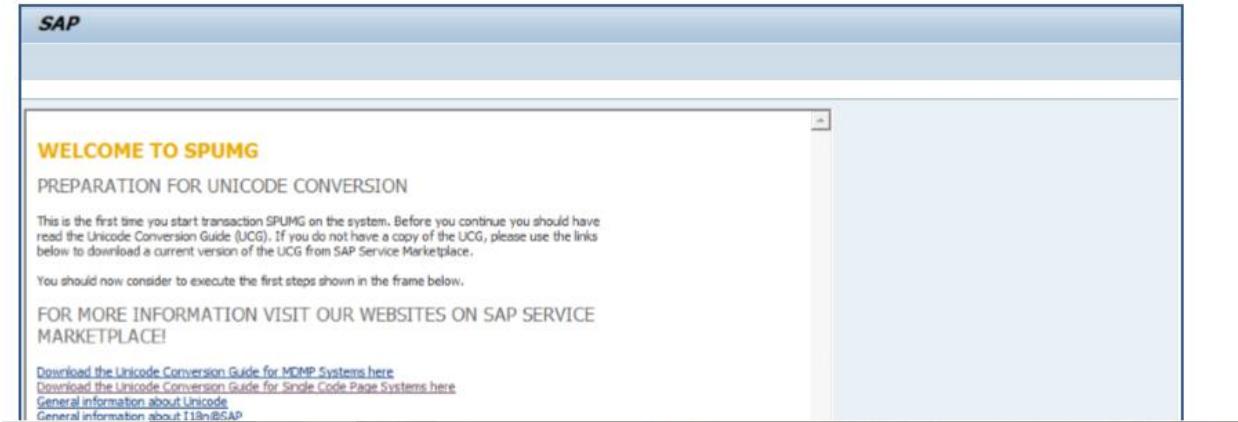
The following Notes contains detailed Guides for the usage of SPUMG for every NetWeaver Release based on 7.0x and 7.3x. These guides are optional, as a specific guide for DMO is attached to SAP Note 1968508 Note 1051576 - Conversion of Single Code Page Systems to Unicode Note 2108396 - SUM DMO with Unicode Conversion: R3load requirements

check for corrections of SPUMG and additional preparation steps Note 662215 - SPUMG and SUMG in Basis Release 6.20, 6.40 and 7.0X Note 1457258 - Correction instruction for the Additional Preparation Steps Note 1319517 - Unicode Collection Note

In addition, check with Transaction I18N the RSCPINST settings



Starting Transaction SPUMG the first time (follow the first steps)



SAP First Guidance ... database migration option (DMO) - BW on HANA



First Steps

Download Exception List from note 996990	Info
Update the SPUMG exception tables	Info
Start additional preparation steps	Info
<input type="checkbox"/> Would you like to replace code page 1100 with 1160 in the Language List ?	Info
<b>Continue with transaction SPUMG</b>	

SPUMG after running the pre-checks (UMG-PIMG\_WORKER\_JOB\_1)

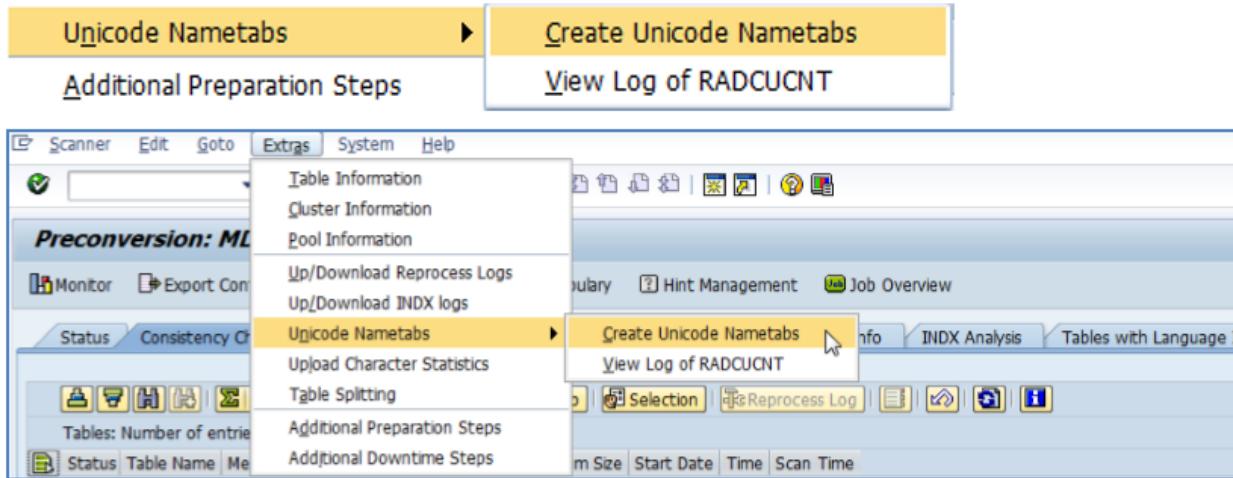
**Konvertierungsvorbereitung: Single Codepage -> Unicode**

Überwachen Export Control Table Ausnahmenliste Job-Übersicht

**Überwachen**

AV-Status (Konsistenzprüfung)
Tab. 27.995
Status Initialisierung beendet
Übersicht Anzahl Tabellen
Transparente Tab. 27.507 Tab.-Pools 28
Tab.-Cluster 34 Pool-Tabellen 370
Cluster-Tabellen 56
Arbeitsvorrats-Übersicht
Jobnummer Suchebene In Bearb. Initial Beendet Warnung Abgebr.
0 Konsistenzprüfung 0 0 27.995 0 0

Running the “Create Unicode Nametabs” Job (UMG\_PMIG\_NTAB\_JOB)



Additional troubleshooting Notes

[Note 765475 - Unicode Conversion: Troubleshooting](#) (contain a troubleshooting guide)

[Note 837173 - RADCUCNT in Unicode Conversion: Collective Note](#)

### The DMO Procedure in Detail

#### Phase Extraction (1)

After you start the Software Update Manager (SUM), specify the correct stack.xml file.

Please note: the following directories are selected by default. - SUM root directory:

/usr/sap/<SID>/SUM - Download directory: /usr/sap/<SID>/download

If you want to use a different location for the SUM directory, you must specify this in the Instance Parameter DIR\_PUT and restart the server. Otherwise the Parameter will be set automatically. If the path to the SUM directory is longer than 25 characters, you can move the SUM directory to a shorter path as well. The Download Directory is the location where the stack.xml is resided including all additional needed files during the SUM/DMO process. On Win64 based systems remain to the default download directory to avoid ACL errors in the phase EHP\_INCLUSION.

Unpack the SUM 2.0 SP04 or higher file as follows: /usr/sap/<SID>/SAPCAR -xvf SUM20SP04\_2-80002456.SAR Start the SUM/DMO UI with the following URL:

Example: <http://<server>.wdf.sap.corp:1128/lmsl/sumabap/<SID>/doc/slui/>

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

**SAP Software Update Manager 1.0 SP21 (PL0)**

**HOME**

0% Process is in dialog state  
Current Phase: MOD\_SELROADMAP/SELECT\_ROADMAP

Welcome to Software Update Manager

Specify a valid stack configuration file. The selection of Add-Ons and Support Packages is derived from this file.

Important information for this program is included in SAP Note 2418924 and further SAP Notes mentioned therein. Read the current version before you start preparing the procedure and check the SAP Note again for changes before you start the procedure.

Enter a valid XML file name:  
STACKFILE

**Archive Verification**

The SAP archives are signed with digital signatures. Mark this checkbox if you want to check the authenticity of all the archives in the download directory. Download the Certificate Revocation List from <https://tcs.mysap.com/crl/crlbag.p7s>, and provide it in the download directory for checking the authenticity. For details see the SUM Guide.

Check archives authenticity

**SAP Software Update Manager 1.0 SP21 (PL0)**

**HOME**

1 Extraction    2 Configuration    3 Checks    4 Preprocessing    5 Execution    6 Postprocessing

0% Process is in running state  
Current Phase: PREP\_EXTRACT/SCAN\_DOWNLOADDIR

1% Process is in dialog state  
Current Phase: PREP\_PRE\_CHECK/PROFREAD

Required System Passwords

**Password for User DDIC**

Enter the password for SAP user DDIC in client 000:  
DDIC PASSWORD

**OS-Specific Password**

Enter the password for the operating system account .!SAPServiceBWS:  
OS PASSWORD

Software Update Manager

HOME

66% Process is in dialog state

Current Phase: MOD\_SELROADMAP/SELECT\_ROADMAP

Stack Configuration File

Specify a valid stack configuration file. The selection of add-ons and Support Packages is derived from this file.

Enter a valid XML file name:

STACKFILE

Phase: 10% select STACK CONFIGURATION FILE

Location of the **stack.xml** file:

**/usr/sap/<SID>/download/SMSDXML\_<SID>\_<date><time>.xxx.xml**  
**/usr/sap/HBD/download/SMSDXML\_HBD\_20150609151427.762.xml** (path valid also for Win64)

By selecting the **stack.xml** you define the download directory, where all necessary files, support packages, updates, etc. can be found for the following phases. The **stack.xml** cannot be loaded from a local destination.

In addition, provide any updated files here as well, e.g. SAPCryptoLib, ST-A/PI, Kernel, etc. which are not collected by the **stack.xml**.

If you already have executed several SUM/DMO runs you can place the existing UPGANA.xml files into the download directory as well. This allows the DMO process to calculate the different Phases more precisely, especially the comparison between long and short runtimes Phases (e.g. TABIM\_UPG vs. xyz)

Phases marked with "R3trans depending" are directly performance relevant, so make sure that you specified the maximum R3trans process possible, or move the CI (temporary) to the HANA server before you start the DMO process - <http://scn.sap.com/docs/DOC-59250>

<input type="checkbox"/>	 <b>UPGANAWDEUMH.XML</b> Created 4 hours ago by Roland Kramer 597 KB No Description No Tags <a href="#">Favorite</a>   <a href="#">Like 0</a>   <a href="#">Comment</a>
<input type="checkbox"/>	 <b>UPGANAN4S_lwdf4366.XML</b> Modified 5 hours ago by Roland Kramer 630 KB No Description No Tags <a href="#">Favorite</a>   <a href="#">Like 0</a>   <a href="#">Comment</a>

0% Process is in dialog state

Current Phase: PREP\_EXTRACT/SCAN\_DOWNLOADDIR

Welcome to Software Update Manager

Important information for this program is included in [SAP Note 1843776](#) and further SAP Notes mentioned therein. The keyword is included in the relevant product-specific SAP Note. Read the current version before you start preparing the procedure and check the SAP Note again for changes before you start the procedure.

The download directory might contain the following type of files:

- Stack configuration file for enhancement packages or Support Package stacks.
- DVDs.
- ABAP patch archives, for example, Support Packages or ADD-Ons.
- ABAP kernel for your target SAP system.

Your SAP system is HBT with HDB database.

This is SAPUp version lmt\_005, build SAPUp release lmt\_005 version 54.000

**Download Directory**

Enter the path to the download directory. *Note:* You can also use symbolic links in the download directory.

DOWNLOAD DIRECTORY

Phase: 2 0% PREP\_EXTRACT/SCAN\_DOWNLOADDIR

HOME

1 Extraction    2 Configuration    3 Checks    4 Preprocessing    5 Execution    6 Postprocessing

0% Process is in running state

Current Phase: PREP\_EXTRACT/SCAN\_DOWNLOADDIR

In this phase the download directory must be already available, as all needed files are extracted to **/usr/sap/trans/EPS/in**

0% Process is in dialog state

Current Phase: PREP\_PRE\_CHECK/PROFREAD

Required System Passwords

**Password for User DDIC**

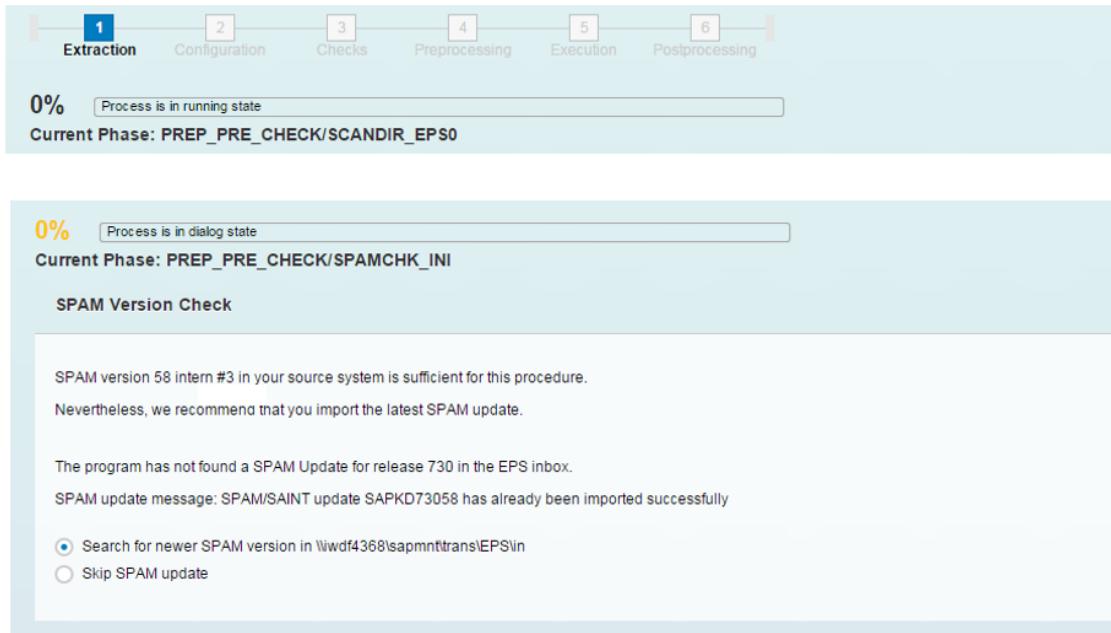
Enter the password for SAP user DDIC in client 000:

DDIC PASSWORD

Phase: 3 0% PREP\_PRE\_CHECKPROFREAD

For a better overview you can always open the "TASKLIST" on the right side of the UI.

For a better overview you can always open the "TASKLIST" on the right side of the UI.



Phase: 4 0% PREP\_PRE\_CHECK/SPAMCHK\_INI

In case you didn't apply the latest SAPM update, yet you will be asking to install the latest Version for your NetWeaver Release. Current Version is 0061 (06/2016).

Note 1828915 - Upgrade stops in MOD\_INSTNR\_PRE phase  
Note 1933892 - Checks after phase MAIN\_NEWBAS/JOB\_RSINDCHK were negative!  
Note 2144370 - Error in SUM phase MAIN\_SHDIMP/SUBMOD\_SHDIMP/SHADOW\_IMPORT\_INC  
Note 2050846 - Error in phase MAIN\_SHDINST/SUBMOD\_SHDALIASCRE/EU\_CLONE\_CRE\_SHDVEWS using DMO option of SUM

If there is NetWeaver 7.30 as Start for the DMO procedure, the NetWeaver 7.40 SR1 export DVD must be available in the download location. Please Note, that the MOPz process only selects only the delta files after the availability of the NetWeaver 7.40 SR1. The created stack.xml file will recognize this correctly. If you are running the DMO procedure between 7.40 SR1 (based on SP05) and 7.40 SR2 (based on SP08) you have to create for the RDBMS Oracle and DB6 an additional table space called PSAP<SID>740X for the exchange of the complete ABAP source. In this context you also have to consider the SAP Note Note 1819182 - Tables (TTREE\*) remain in old exchange table space

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

HOME



1% Process is in running state

Current Phase: PREP\_INPUT/SCANDIR\_EXTRACT

Phase: 5 1% PREP\_INPUT/SCANDIR\_EXTRACT

In this phase the download directory is checked for the Kernel archives. You can also copy newer \*.SAR packages to the directory. The SUM/DMO process will always recognize the latest file and, if your source kernel is higher than in the scan directory.

In this phase the download directory is checked for the Kernel archives. You can also copy newer \*.SAR packages to the directory. The SUM/DMO process will always recognize the latest file and, if your source kernel is higher than in the scan directory.

1% Process is in dialog state

Current Phase: PREP\_INPUT\_CHECK/EXTRACTKRN\_PRE

Enter DVD Mount Points

Enter mount points for the DVDs of the kit "NW740SR2" required for the procedure

Path	Media description	Error message
D:\usr\lsap\CIH\download\ADDON740	Label: D51045590	
D:\usr\lsap\CIH\download\BL_CONT_7.5;	Label: D51047366	
D:\usr\lsap\CIH\download\EXPORT	Label: D51048524_2; NW740SR2:ex...	
D:\usr\lsap\CIH\download\KERNEL7.21	Label: D51044253; NW731:kernel	
D:\usr\lsap\CIH\download\LANGUAGE	Label: D51048524_3; NW740SR2:la...	

Add Remove

Enter at least the mount point containing Kernel DVD for OS NTAMD64 and Unicode  
The requested data carrier is not mounted on any of the mount points you entered.

Dispose old mount points and rebuild scope

Phase: 6 1% PREP\_INPUT/EXTRACTKRN\_PRE

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

In this case the DVD for the Kernel 7.42 is not found in the SUM/download directory.

The screenshot shows the SAP Kernel 7.42 Linux on x86\_64 64bit download interface. At the top, it displays the file name '51049350\_S' and the date '15.01.2015'. Below this, there are buttons for 'Add to Download Basket', 'Maintain Download Basket', 'Select All', and 'Deselect All'. A progress bar at the top indicates '1% Process is in dialog state'. The current phase is 'PREP\_INPUT\_CHECK/EXTRACTKRN\_PRE'. The main area is titled 'Enter DVD Mount Points' and contains a table for entering mount points for the 'NW740SR2' kit. The table has columns for 'Path', 'Media description', and 'Error mess...'. Two entries are listed: 'D:\usr\sap\CI\download\SAP\_JCE' with 'Label: CD51042720' and 'D:\usr\sap\CI\download\KERNEL\_742'. There are 'Add' and 'Remove' buttons above the table. Below the table, a message says 'Phase: 7 1% PREP\_INPUT/EXTRACTKRN\_PRE - Kernel 7.42 DVD'.

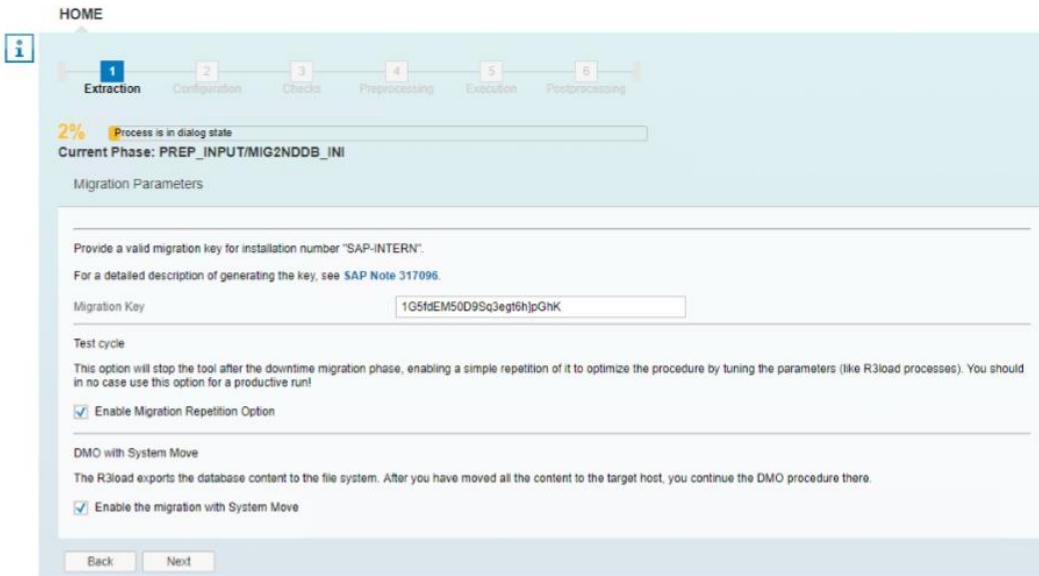
SAP First Guidance ... database migration option (DMO) - BW on HANA



The screenshot shows the SAP First Guidance DMO - BW on HANA interface. It features a horizontal navigation bar with steps 1 through 6: Extraction, Configuration, Checks, Preprocessing, Execution, and Postprocessing. Step 1, 'Extraction', is highlighted. A progress bar at the top indicates '1% Process is in dialog state'. The current phase is 'PREP\_INPUT/MIG2NDBB\_INI'. The main area is titled 'Database Migration Option' and asks for the target database type. It lists three options: 'No migration' (radio button), 'SAP HANA' (radio button, selected), and 'SAP ASE'. To the right, a table lists tasks with their status and descriptions:

Task Type	Status	Description
CHKSYSTYPE	OK	CHKSYSTYPE
SSFS_INI	OK	SSFS_INI
LC_CHECK	OK	LC_CHECK
MIG2NDBB_INI	IN PROGRESS	MIG2NDBB_INI
READDATA_ORACLNT	PENDING	READDATA_ORACLNT
DBQUERY_PRE	PENDING	DBQUERY_PRE
CONFCHK_IMP	PENDING	CONFCHK_IMP
TOOLCHECKXML_DBCL_1ST	PENDING	TOOLCHECKXML_DBCL_1ST
ASCS_CHK	PENDING	ASCS_CHK

The screenshot shows the SAP Software Update Manager 1.0 SP21 (PL0) interface. It follows the same step-based navigation as the previous screen. Step 1, 'Extraction', is highlighted. A progress bar at the top indicates '2% Process is in dialog state'. The current phase is 'PREP\_INPUT/MIG2NDBB\_INI'. The main area is titled 'Database Migration Option' and asks for the target database type. It lists three options: 'No migration' (radio button), 'SAP HANA' (radio button, selected), and 'SAP ASE' (radio button). Below the table, there are 'Back' and 'Next' buttons. To the right, a table lists tasks with their status and descriptions, which is identical to the one shown in the previous screenshot.



Phase: 8 1% PREP\_INPUT/MIG2NDBB\_INI - choose DMO

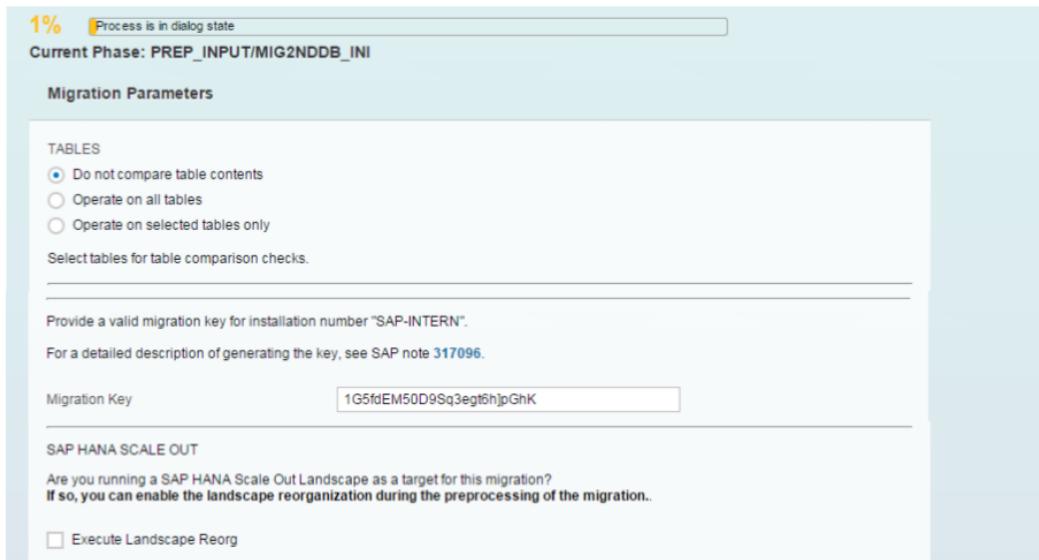
Check the log MIG2NDBB\_INI.LOG to make sure your database is supported for the DMO procedure. Note 1134948 - ABAP Migration Key for special installation numbers

Migration key 1G5fdEM504qSq3egt6h]pGhK for instance number SAP-INTERN lasts until 2020/12/31

The CHECKS.LOG can be checked by clicking “LOGS” on the right side of the UI.

Leave the Option Execute Landscape Reorg unticked, if you are running on a single HANA node, otherwise allow DMO to prepare the Landscape reorg.

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



New with SUM SP14 - Introduce Test cycle option

New with SUM SP14 - Introduce Test cycle option



Phase: 9 1% PREP\_INPUT/MIG2NDBB\_INI - DMO choose options

By pressing refresh in the Browser, the overlaying CHECKS window will disappear, and you are back in the COCKPIT monitor. This is also suitable, when you have the following Pop-Up due to inactivity of the screen.

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

The screenshot shows a list of migration steps under the heading "6 Infos and 0 Errors". The steps listed are:

- > PREP\_PRE\_CHECK/SPAMCHK\_INI info
- > PREP\_INPUT/READCVERS\_DUMP info
- > PREP\_INPUT/SCANDIR\_COLLECT info
- > PREP\_INPUT/CONFCHK\_IMP info
- > PREP\_INPUT/ASCS\_CHK info
- < PREP\_INIT/ADDON\_INFO info

Phase PREP\_INIT/ADDON\_INFO

INFO: The upgrade strategy for the addon DMIS is described in note 1231203.  
INFO: The upgrade strategy for the addon DMIS\_CNT is described in note 1231203.  
INFO: The upgrade strategy for the addon PI\_BASIS is described in note 555060.  
INFO: The upgrade strategy for the addon SAP\_ABA is described in note 632429.  
INFO: The upgrade strategy for the addon SAP\_BASIS is described in note 632429.  
INFO: The upgrade strategy for the addon SAP\_BW is described in note 632429.  
INFO: The upgrade strategy for the addon ST-PI is described in note 539977.

An error in the file CHECKS.log appears as a red flag in the “old UI”.

An error in the file CHECKS.log appears as a red flag in the “old UI”.

Software Update Manager

HOME

Extraction Configuration Checks Preprocessing Execution Postprocessing

3% Process is in running state

Current Phase: PREP\_INIT/JOB\_RSUPDTEC

Process execution in progress!

Task Type Status Description

DBCHK_INI	Green
SQLDB_LIST_AVERS_EXT	Green
SWITCHPARAM_UPGDIR	Green
REQ_J2EEUPG	Green
SETSYNC_PREP_STARTED	Green
VERSCHK_INI	Green
VALCHK_INI	Green
EHP_CHK	Green
UNICODE_CHK_PRE	Green
SCANDIR_UPG1	Green
TOOLCHECKXML_UPG	Grey

Software Update Manager

HOME

Extraction Configuration Checks Preprocessing Execution Postprocessing

3% Process is in running state

Current Phase: PREP\_INIT/JOB\_RSUPDTEC

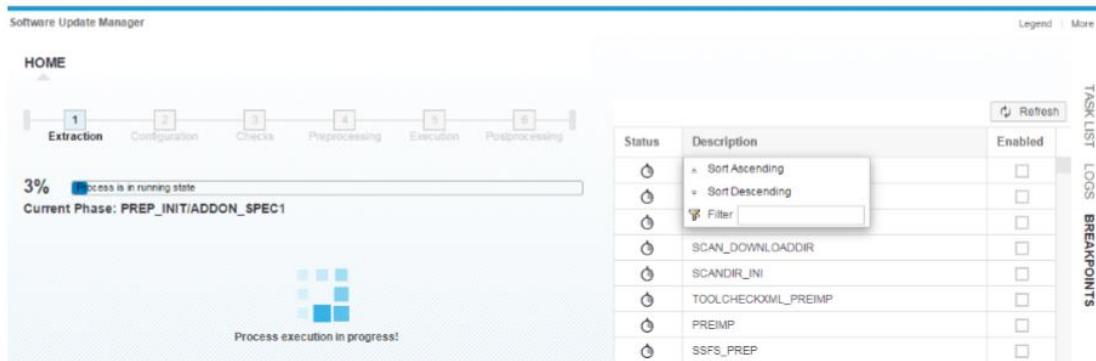
Process execution in progress!

Description Last Modified On

PSUPDTEC.LOG	2015.04.02 - 14:53:35
SAPup.log	2015.04.02 - 14:52:33
SAPupConsole.log	2015.04.02 - 14:52:33
ULOG15_2	2015.04.02 - 14:52:33
PHASES.LOG	2015.04.02 - 14:52:33
OPENPATCHES.LOG	2015.04.02 - 14:52:33
SQLSTMSTD OUT	2015.04.02 - 14:52:32
OPENPATCHES.SAV	2015.04.02 - 14:52:32
PHASES.SAV	2015.04.02 - 14:52:31

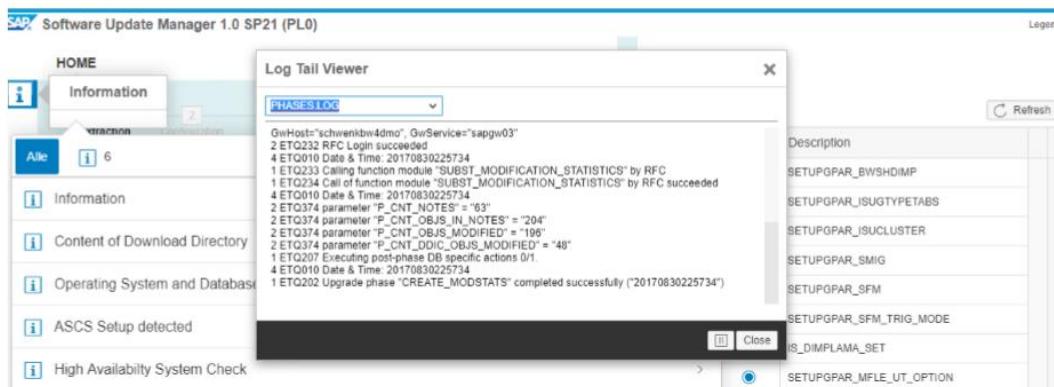
Setting explicit Breakpoints can be optimized by clicking into the column header and use the search.

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



By hoover the Mouse Pointer over the Phase Bar, automatically you will see the overall rumtime estimate of the DMO procedure (file **SAPupStat.log** constantly updated).

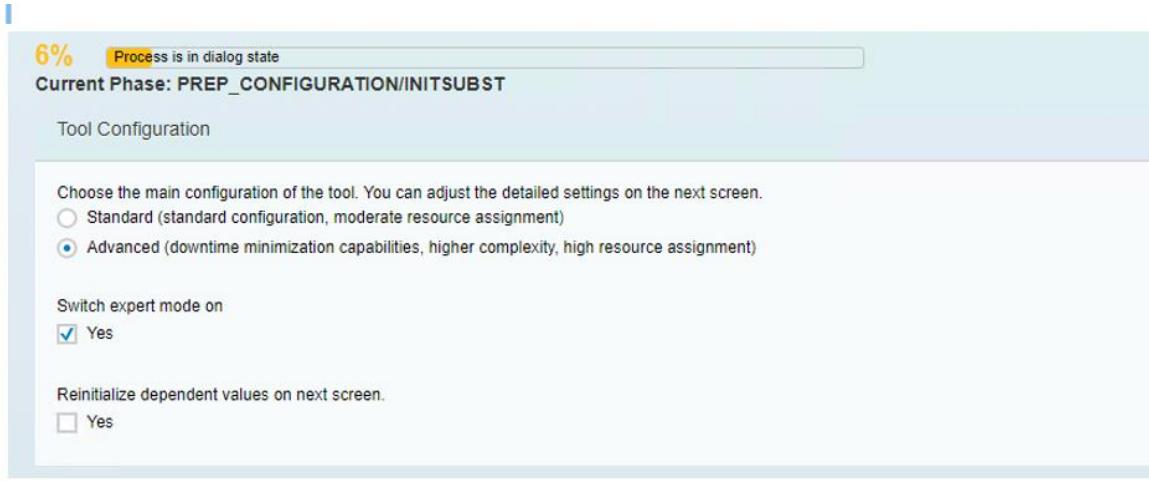
You can always open the current phase list on the right side of the UI for details



The new functionality Log Tail Viewer allows you to watch some important SAPUp log permanently. Clicking on the active task opens the current Phase List Log.

**PREP\_INIT/ADDON\_INFO TEXT INFO:** The upgrade strategy for the addon BI\_CONT is described in note 1000822. **INFO:** The upgrade strategy for the addon BI\_CONT\_XT is described in note 632429. **INFO:** The upgrade strategy for the addon CPMBPC is described in note 1142913. **INFO:** The upgrade strategy for the addon CTS\_PLUG is described in note 632429. **INFO:** The upgrade strategy for the addon DMIS is described in note 1231203. **INFO:** The upgrade strategy for the addon FINBASIS is described in note 438520. **INFO:** The upgrade strategy for the addon FSAPPL

is described in note 983007. INFO: The upgrade strategy for the addon FSCM\_CCD is described in note 632429. INFO: The upgrade strategy for the addon FSPOT is described in note 632429. INFO: The upgrade strategy for the addon HANABPC is described in note 632429. INFO: The upgrade strategy for the addon MDG\_FND is described in note 632429. INFO: The upgrade strategy for the addon PI\_BASIS is described in note 555060. INFO: The upgrade strategy for the addon POASBC is described in note 1511393. INFO: The upgrade strategy for the addon SAP\_ABA is described in note 632429. INFO: The upgrade strategy for the addon SAP\_BASIS is described in note 632429. INFO: The upgrade strategy for the addon SAP\_BS\_FND is described in note 632429. INFO: The upgrade strategy for the addon SAP\_BW is described in note 632429. INFO: The upgrade strategy for the addon SAP\_GWFND is described in note 632429. INFO: The upgrade strategy for the addon SAP\_UI is described in note 632429. INFO: The upgrade strategy for the addon SEM-BW is described in note 186299. INFO: The upgrade strategy for the addon ST-A/PI is described in note 69455. INFO: The upgrade strategy for the addon ST-PI is described in note 539977. INFO: The upgrade strategy for the addon WEBCUIF is described in note 632429. INFO: The upgrade strategy for the addon PCAI\_ENT is described in note 632429. INFO: The upgrade strategy for the addon



## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

Extraction Configuration Checks Preprocessing Execution Postprocessing

6% Process is in dialog state  
Current Phase: PREP\_CONFIGURATION/INITSUBST

Parameters for procedure

The tool uses strategy Downtime-minimized. Provide further parameters to configure the procedure. To return to the main configuration screen, choose "Back".

Enter the maximum number of ABAP processes (dialogue and batch) during the update:

ABAP PROCESSES (UPTIME)	24
ABAP PROCESSES (DOWNTIME)	24

Enter the maximum number of parallel processes for execution of SQL commands

SQL PROCESSES (UPTIME)	16
SQL PROCESSES (DOWNTIME)	16

Enter the maximum number of parallel import processes:

R3TRANS PROCESSES (UPTIME)	24
R3TRANS PROCESSES (DOWNTIME)	24

Enter the maximum number of parallel R3load or table comparison processes: Migration phases doing export + import, half of it are used on either side.

R3LOAD PROCESSES (UPTIME)	48
R3LOAD PROCESSES (DOWNTIME)	48

Select the instance of your system that shall be used as background server.

Note: If it is different from the central instance (primary application server instance) host, F:\usr\sap\BWS\SUM\abap must be mounted on the background host.

Also note that during the system downtime, all background jobs are started on your central instance (primary application server instance) while the background server has to down.

Automated batch job distribution (system will decide where to run the jobs)  
 schwenkbw4dmo\_BWS\_03 (10 batchprocesses located)

Choose an execution strategy for transaction SGEN.

Execution mode

Do not start ABAP load generation during the update.  
 Start asynchronously in post downtime.

Back Next

HOME

! 1 Extraction 2 Configuration 3 Checks 4 Preprocessing 5 Execution 6 Postprocessing

9% Process is in error state  
Current Phase: PREP\_CONFIGURATION/UPDATE\_SHAREDINPUT\_CONFIG

Continue with roadmap step "Configuration"

Current status: continue with phase PREP\_CONFIGURATION/INITSUBST  
The step did not complete successfully and will continue at the point it failed.

Note that additional mandatory manual steps might be listed in the file "CHECKS.LOG" (html)  
Identical content, but in TEXT format, can be found in the file "CHECKS.TXT" (plain text)  
It contains entries of the following types:

- error
- info

In order to complete the procedure, please process any manual tasks listed there.

Back Next

Phase 9: PREP\_CONFIGURATION/UPDATE\_SHAREDINPUT\_CONFIG

The SAP Notes listed below contain corrections that are essential for a correct execution of the procedure. You can only continue with the procedure after you have implemented the SAP Notes. Use the Note Assistant to download the following SAP Notes and implement them if

applicable. You can ignore notes that are classified as "cannot be implemented" or "obsolete" by the Note Assistant.

0001488040 0001680583 0001696748 0001797462 0001861585 0002045835 0002294460  
0001994245 0002091348 0002311092 0001667685 0002344014 0002408559 000212233

7% Process is in dialog state

Current Phase: PREP\_PARSETUP/SPAU\_FILL\_LEVEL\_DEC

Open actions in transaction SPDD and SPAU

To minimize the effort for modification adjustment we recommend to

- Confirm all obsolete notes.
- Reset all not-adjusted objects with active SAP-version to SAP-Standard.

If this is the Development System you can use report RSUPG\_AUTO\_ADJ\_SPAU to get a list of modified objects that are likely candidates for reset to SAP standard. Depending on the number of objects listed above it is advisable to execute the report in back ground. The report writes the list of candidates to a log file.  
This report also offers the possibility to perform the reset to SAP standard for the listed candidates automatically. The workbench request required for this automatic adjustment must be imported into the follow up system before the update of these systems.

There are open actions in transaction SPDD and SPAU from former upgrades or support package implementations:  
Number of obsolete and non-adjusted Notes: 207  
Number of non-adjusted modified objects: 14

Summary of non-adjusted modified objects.

with Modification Assistant:	8
thereof SPDD-relevant:	0
without Modification Assistant:	6
thereof SPDD-relevant:	2

Non-adjusted objects with active version from SAP.

total number:	11
thereof SPDD-relevant:	1

Phase: 10 6% - PREP\_PARSETUP/SPAU\_FILL\_LEVEL\_DEC

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

The SUM utility UI can be opened via the drop-down menu in the upper right corner.

The screenshot shows the SAP Software Update Manager 1.0 SP21 (PL0) interface. At the top, it says "HOME". Below that is a horizontal bar with six steps: Extraction, Configuration, Checks, Preprocessing, Execution, and Postprocessing. Step 2 (Configuration) is highlighted with a blue box. A progress bar below the steps shows "10% Process is in running state" and the "Current Phase: PREP\_EXTENSION/EHP\_INCLUSION". On the right side, there is a vertical menu with options: Legend, More, Toggle Color Schema, SUM Guide, SUM Note, SAP Help Portal, Log Tail, Utilities (which is also highlighted with a red box), and Get support File.

This screenshot shows the "Software Update Manager Utilities" page. On the left, there is a navigation sidebar with links: SUM Parameters, SUM Phaselist, SUM Analysis, DMO Migration Preparation, DMO Migration Control Center, and DMO Migration Post Analysis. The main content area is titled "Welcome" and contains the text: "The Software Update Manager (SUM) Utilities offer an easy access to configure and analyze your SUM run." It also lists "Navigation Items" with the following bullet points:

- **SUM Parameters:** adapt your configuration
- **SUM Phaselist:** display the phase list (phaselist.xml visualization)
- **SUM Analysis:** display the phase runtimes (UPGANAXML visualization)
- **DMO Migration Preparation:** visualize the migration preparation procedure
- **DMO Migration Control Center:** display the R3load process evolution and SAP HANA load (during migration phases)
- **DMO Migration Post Analysis:** display the R3load process utilization chart (after finished migration phases)

This screenshot shows the "Configuration" step of the SUM utility. At the top, there is a horizontal bar with the same six steps: Extraction, Configuration, Checks, Preprocessing, Execution, and Postprocessing. Step 2 (Configuration) is highlighted with a blue box. A progress bar below the steps shows "6% Process is in dialog state". The main content area says "SUM ABAP process started" and "Continue with roadmap step "Configuration"". It also displays the current status: "selected PREP\_CONFIGURATION, PREP\_SETUP, PREP\_EXTENSION, PREP\_INTEGRATION, PREP\_INSTALL". Below that, it says "Previous step finished successfully and the next one will be started." and "Please be advised that additional mandatory manual steps may be listed in file "CHECKS.TXT" (plain text) resp. "CHECKS.LOG" (HTML)." It also says "In order to complete the procedure, please process any manual tasks listed there." At the bottom, there are three buttons: Back, Next, and Reset.

Phase: 11 6% PREP\_CONFIGURATION/INITSUBST - END (1)

## Phase Configuration (2)

6% Process is in dialog state

Current Phase: PREP\_CONFIGURATION/INITSUBST

### Tool Configuration

Choose the main configuration of the tool. You can adjust the detailed settings on the next screen.

Standard (standard configuration, moderate resource assignment)  
 Advanced (downtime minimization capabilities, higher complexity, high resource assignment)

Keep archiving on during the whole procedure  
 Yes

Switch expert mode on  
 Yes

 Check here with the latest finding mentioned in the Blog - <http://scn.sap.com/community/bw-hana/blog/2015/03/17/dmo-optimizing-system-downtime>

6% Process is in dialog state

Current Phase: PREP\_CONFIGURATION/INITSUBST

### Parameters for procedure

The tool uses strategy Downtime-minimized. Provide further parameters to configure the procedure. To return to the main configuration screen, choose "Back".

Enter the maximum number of ABAP processes (dialogue and batch) during the update:

ABAP PROCESSES (UPTIME)   
ABAP PROCESSES (DOWNTIME)

Enter the maximum number of parallel processes for execution of SQL commands

SQL PROCESSES (UPTIME)   
SQL PROCESSES (DOWNTIME)

Enter the maximum number of parallel import processes:

R3TRANS PROCESSES (UPTIME)   
R3TRANS PROCESSES (DOWNTIME)

Enter the maximum number of parallel R3load or table comparison processes: Migration phases doing export + import, half of it are used on either side.

R3LOAD PROCESSES (UPTIME)   
R3LOAD PROCESSES (DOWNTIME)

Enter the maximum number of parallel phases to run:

PARALLEL PHASES (UPTIME)   
PARALLEL PHASES (DOWNTIME)

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

Select the instance of your system that shall be used as background server:

Note: If it is different from the central instance (primary application server instance) host, /db2log/PB0/SUM/abap must be mounted on the background host.

Also note that during the system downtime, all background jobs are started on your central instance (primary application server instance) while the background server has to be shut down.

- Automated batch job distribution (system will decide where to run the jobs)
- hdbpoc03\_PB0\_02 (32 batchprocesses located)

If you use the "Downtime-minimized" strategy, you can run the shadow instance on a different host in your system landscape.

Do you want to use this feature?

- Use remote shadow instance

Choose an execution strategy for transaction SGEN.

Execution mode

- Do not start ABAP load generation during the update.
- Generate ABAP loads on shadow system during uptime.
- Generate ABAP loads on shadow system during uptime and start asynchronously in post downtime.

Enter the maximum number of processes to be used for load generation.

Note: Generation of ABAP program loads needs high CPU resources. Choosing a number too high might affect productive operation.

SGEN PROCESSES

24

Back

Next

Reset

### Phase: 12 6% PREP\_CONFIGURATION/INITSUBST - tool configuration

PHASE: 12 6% PREP\_CONFIGURATION/INITSUBST - tool configuration

Even if you try to change the settings in the next screen, it will go back to these settings. However, the selected option (Advanced and Switch expert mode on) is the most effective way to get the maximum on the available resources for the Upgrade/DMO process.

As with a BW upgrade the "business downtime" is more relevant than the "technical downtime". The "Downtime-minimized" strategy is not from concern here. So, the Advanced/Standard strategy is the right choice.



Please Note that the Parameters have a massive influence of the time-consuming phase during the SUM/DMO procedure. The seen values might not fit to your environment (increase them accordantly).

7% Process is in dialog state

Current Phase: PREP\_CONFIGURATION/SUBMOD\_MIG\_INSTCLIENT/HDB\_INSTCLIENT

Target database client

The tool needs access to the target database client.

Enter the following information:

Path to hdbinst for client installation

### Phase: 13 7% PREP\_CONFIGURATION/SUBMOD\_MIG\_INSTCLIENT/HDB\_INSTCLIENT

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

SAP HANA 1.0 database client

Error! Hyperlink reference not valid.

[\\\[REDACTED\].wdf.sap.corp\sapmnt\CIH\download\SAP\\_HANA\\_CLIENT](\\[REDACTED].wdf.sap.corp\sapmnt\CIH\download\SAP_HANA_CLIENT)

7% Process is in dialog state

Current Phase: PREP\_CONFIGURATION/SUBMOD\_MIG\_CONFIG/HDB\_MIGCONFIG

**Required Migration Specific Passwords**

Enter parameters for the Hana database on host "[REDACTED] corp" instance number "02":

**Target database SYSTEM password**

Enter target database specific passwords.

Enter the password for the DB user SYSTEM

Phase: 14 7% PREP\_CONFIGURATION/SUBMOD\_MIG\_INSTCLIENT/HDB\_INSTCLIENT

8% Process is in dialog state

Current Phase: PREP\_CONFIGURATION/SUBMOD\_MIG\_CONFIG/HDB\_MIGCONFIG

**Database Migration Initialization**

You are going to migrate your system to a new database.

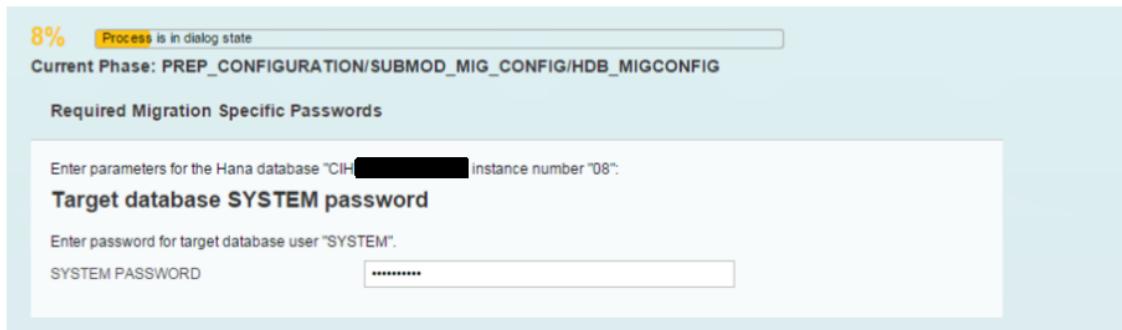
Enter the following parameters of the target database:

Target Hostname

Enter the SID and instance number of the target database instance (might be different from your SAP system):

SID of the target database  CIH

Target Instance Number  08



Phase: 16 8% PREP\_CONFIGURATION/SUBMOD\_MIG\_CONFIG/HDB\_MIGCONFIG

SAP HANA 1.0 License

Error! Hyperlink reference not valid.

[\\\[REDACTED\].wdf.sap.corp\sapmnt\CIH\download\CIH\\_Standard\\_15.06.2016.txt](\\[REDACTED].wdf.sap.corp\sapmnt\CIH\download\CIH_Standard_15.06.2016.txt)

Get a migration key for anyDB to HDB - see internal Note (SAP Employees)

[Note 1134948 - ABAP Migration Key for special installation numbers](#)

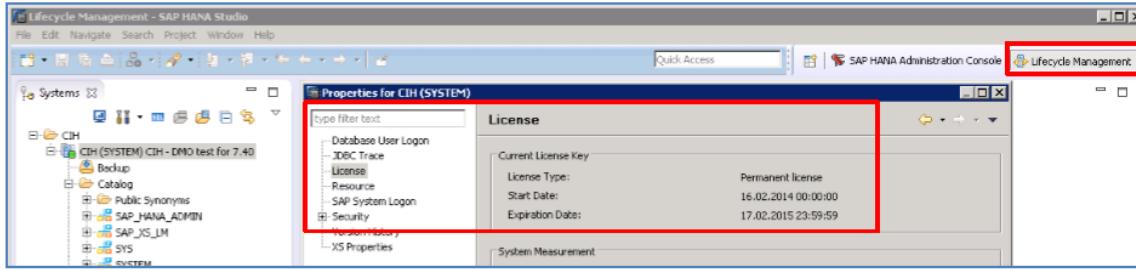
SAP HANA 1.0 License Error! Hyperlink reference not valid.

[\\iwdf4368.wdf.sap.corp\sapmnt\CIH\download\CIH\\_Standard\\_15.06.2016.txt](\\iwdf4368.wdf.sap.corp\sapmnt\CIH\download\CIH_Standard_15.06.2016.txt)

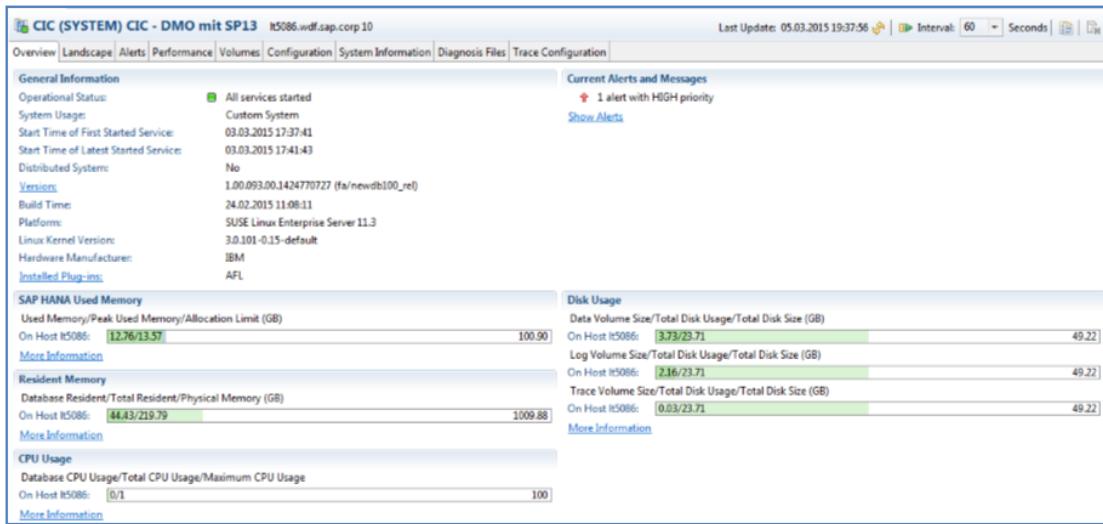
Get a migration key for anyDB to HDB - see internal Note (SAP Employees) Note 1134948 -

ABAP Migration Key for special installation numbers

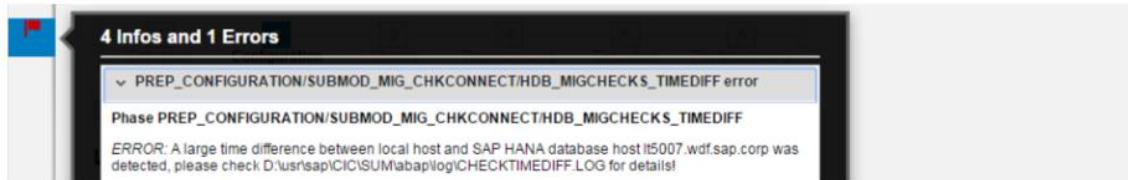
## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



Phase: 17 - SAP HANA Studio - Lifecycle Management



Phase: 18 - SAP HANA Studio - HDB Connection



Errors during the Phases will be shown with a red flag in the left upper corner of the UI. Precede with the error messages before the end of the phase is reached.

By clicking on the symbol the message become visible, clicking again will go back to the main UI.

7% Process is in dialog state

Current Phase: PREP\_CONFIGURATION/SUBMOD\_MIG\_CONFIG/HDB\_PREPARE

**Required Migration Specific Passwords**

Enter parameters for the Hana database on host [REDACTED].corp" instance number "05".

**SAP HANA DBACOCKPIT user password**

Enter SAP HANA specific passwords.

\*Enter the password for the DB user DBACOCKPIT (this user will be created)

.....

\*Confirmation : Enter the password for the DB user DBACOCKPIT (this user will be created)

.....

Phase: 19 8% PREP\_CONFIGURATION/SUBMOD\_MG\_CONFIG/HDB\_PREPARE - DBACOCKPIT

Phase: 19 8% PREP\_CONFIGURATION/SUBMOD\_MG\_CONFIG/HDB\_PREPARE - DBACOCKPIT

8% Process is in dialog state

Current Phase: PREP\_CONFIGURATION/SUBMOD\_MIG\_CONFIG/HDB\_PREPARE

**Required Migration Specific Passwords**

Enter parameters for the Hana database "CIH" [REDACTED] instance number "08".

**Target database SAPSID password**

Enter the password for the target database user SAPSID (this user will be created)

\*SAPSID PASSWORD

.....

\*Confirmation : SAPSID PASSWORD

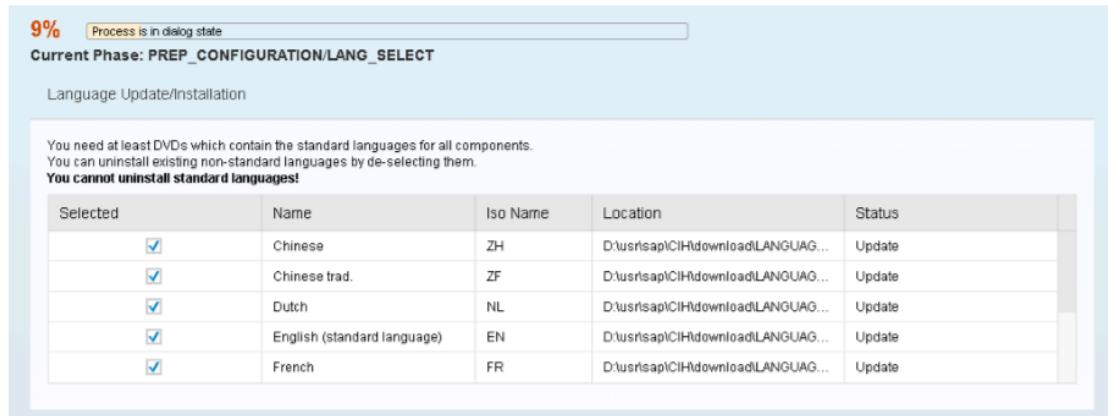
.....

Phase: 20 8% PREP\_CONFIGURATION/SUBMOD\_MG\_CONFIG/HDB\_PREPARE - SAPSID

8% Process is in running state

Current Phase: PREP\_SETUP/TOOLIMP\_INTERNAL\_TOOLS

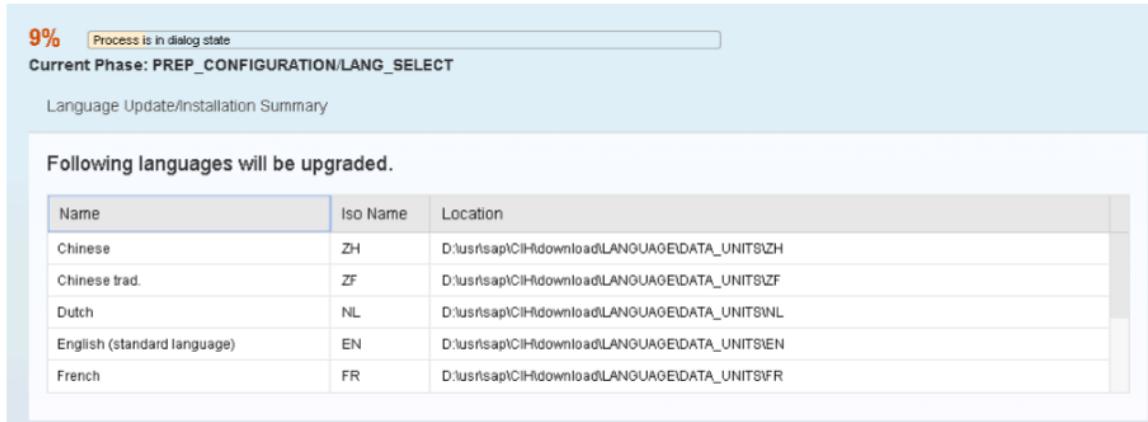
```
indexserver.ini → use_startup_timezone = false
.sapenv.csh → set TZ=CET      #add this at the end of the file
```



Phase: 21 9% PREP\_CONFIGURATION/LANG\_SELECT

If you have additional languages installed in your system, the language DVD must also be present in the download directory. You can deinstall additional languages in this phase, but not the default languages which are DE and EN. The language files will also be extracted by default to the DVD 51047454.

If you have additional languages installed in your system, the language DVD must also be present in the download directory. You can deinstall additional languages in this phase, but not the default languages which are DE and EN. The language files will also be extracted by default to the DVD 51047454.

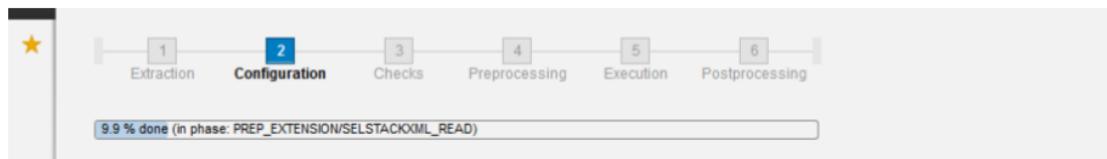


Phase: 22 9% PREP\_CONFIGURATION/LANG\_SELECT

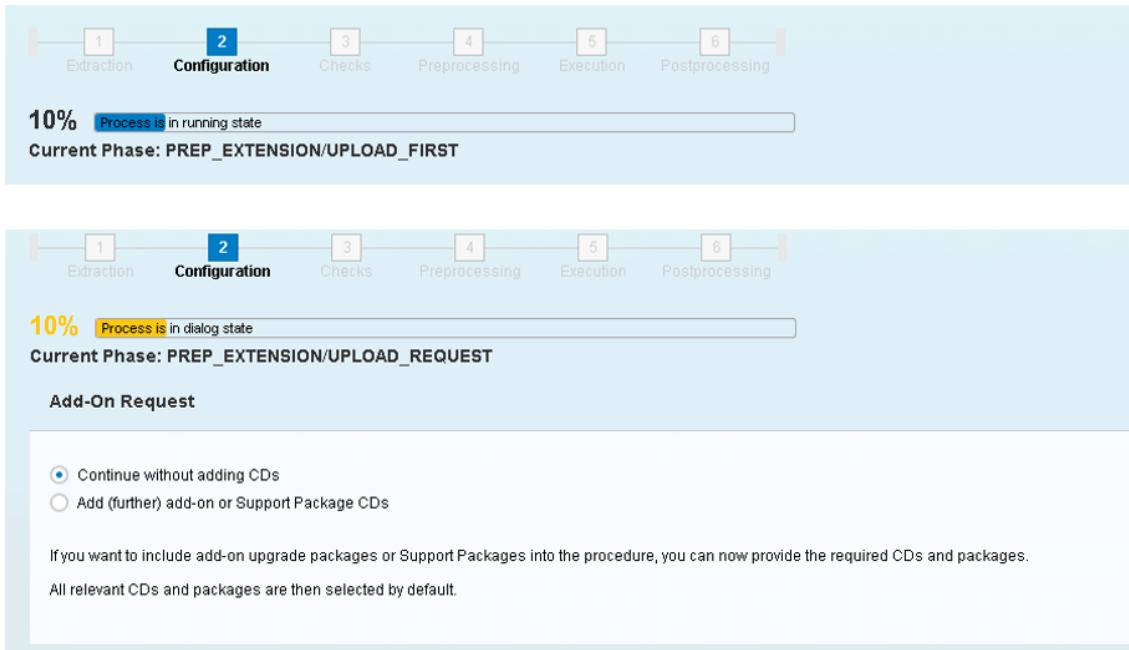
By hoover the Mouse Pointer over the Phase Bar, automatically you will see the overall rumtime estimate of the DMO procedure (file **SAPupStat.log** constantly updated).

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

By hovering the Mouse Pointer over the Phase Bar, automatically you will see the overall runtime estimate of the DMO procedure (file **SAPupstat.log** constantly updated).



If you run the DMO process on a system based on copy, make sure you applied a valid license; otherwise an error will occur in this phase.



Phase: 23 10% PREP\_EXTENSION/UPLOAD\_REQUEST

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

10% Process is in dialog state

Current Phase: PREP\_EXTENSION/UPLOAD\_REQUEST

Enter DVD Mount Points

Enter mount points for the DVDs of the kit "NW740SR2" required for the procedure

Path	Media description	Error message
D:\usr\sap\CIH\download\KERNEL7.45	Label: MATNUMBER: NW750:kernel; BS2016:ker...	
D:\usr\sap\CIH\download\LANGUAGE	Label: D51048524_3; NW740SR2:language	
D:\usr\sap\CIH\download\SAP_HANA_CLIENT	Label: CDxxxxxx	
D:\usr\sap\CIH\download\SAP_JCE	Label: CD51042720	
D:\usr\sap\CIH\download\DMIS_2011		

Enter at least the mount point containing ADD-On DVD

Dispose old mount points and rebuild scope

Phase: 24 10% PREP\_EXTENSION/IS\_INST

11% Process is in running state

Current Phase: PREP\_EXTENSION/EHP\_INCLUSION

Phase: 25 11% PREP\_EXTENSION/EHP\_INCLUSION

11% Process is in dialog state  
Current Phase: PREP\_EXTENSION/IS\_INST

Add-On Request

Enter the additional add-ons that you want to install. Check the relevant SAP Notes to find out whether you can actually install these add-ons.

Enter the IDs and the versions of the add-ons you want to install.

Add-On ID	Add-On Version	Details

Add Remove

1 Extraction 2 Configuration 3 Checks 4 Preprocessing 5 Execution 6 Postprocessing

11% Process is in running state  
Current Phase: PREP\_EXTENSION/SCANDIR\_EPS

[Note 1083365 - Upgrade behavior of Addon ST-A/PI](#)

Password Vendor Key KEEP (SUM/DMO): 2902571

[Note 1678780 - Installation or upgrade of BI\\_CONT/BI\\_CONT\\_XT 7x7](#)

Password (SUM/DMO): 3668936

Note 1083365 - Upgrade behavior of Addon ST-A/PI Password Vendor Key KEEP (SUM/DMO): 2902571 Note 1678780 - Installation or upgrade of BI\_CONT/BI\_CONT\_XT 7x7 Password (SUM/DMO): 3668936 Note 1943931 - Installation/Upgrade for the ABAP Add-On BI\_CONT / BI\_CONT\_XT 757 Password (SUM/DMO): 3821837, 5156796 Note 1577503 - Upgrade to DMIS 2011\_1 in the system switch upgrade Password (SUM/DMO): 4690407 Note 1577441 - Installation and delta upgrade of DMIS 2011\_1\_731 Password (SUM/DMO): 4690407 Note 1577504 - Upgrade to DMIS\_CNT 2011\_1 in the system switch upgrade Password (SUM/DMO): 6855059

Please Note that the MOPz process is not reflecting the latest Version of the ST-A/PI Add-On when the stack.xml is created. Update to the latest Version first, before you create the stack.xml and start DMO. (Use the Installation instead of Exchange-Upgrade package)

Full Update Exchange Update Add-On Version SAPKITAB8M SAPK-01RB8INSSA ST-A/PI 01S\_710 (until 7.30) SAPKITAB9Q SAPK-01RB9INSSA ST-A/PI 01S\_731 (from 7.31 to 7.50)

11% Process is in dialog state  
Current Phase: PREP\_EXTENSION/IS\_SELECT

Add-On Selection

Select the add-ons for which you want to change the decision about the target release.

Selected	Add-On ID	Source Release	Target Release	Status	Note
<input type="checkbox"/>	PCAI_ENT	100	100	KEEP VERSION	632429
<input checked="" type="checkbox"/>	ST-A/PI	01M_BCO720	?	UNDECIDED	69455

11% Process is in dialog state  
Current Phase: PREP\_EXTENSION/IS\_SELECT

Decision About Add-On ST-A/PI

Select the operation to be performed

- Upgrade the add-on with SAINT package.
- Upgrade the add-on with CD/DVD.
- Keep the add-on with the current version. Use only if supported by the add-on vendor! A vendor key is required.
- Delete the add-on with SAINT package actively.
- Delete the add-on passively. Use only if supported by the add-on vendor!

Vendor key for KEEP decision

Phase: 26 11% PREP\_EXTENSION/IS\_SELECT - ST-A/PI

Phase: 26 11% PREP\_EXTENSION/IS\_SELECT - ST-A/PI

Select the add-ons for which you want to change the decision about the target release.

Selected	Add-On ID	Source Release	Target Release	Status	Note
<input type="checkbox"/>	PCAI_ENT	100	100	KEEP VERSION	632429
<input type="checkbox"/>	ST-A/PI	01M_BCO720	01M_BCO720	KEEP VERSION	69455

Enter the IS keyword of  SAP Note 1943931 . (IS "BI\_CONT", version "757")  
This is SAPup version lmt\_005, build SAPup release lmt\_005 version 54.000

IS keyword

Phase: 27 11% PREP\_EXTENSIONS/IS\_SELECT - BW\_CONT

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

Enter the IS keyword of [SAP Note 1943931](#) . (IS "BI\_CONT", version "757")

This is SAPup version lmt\_005, build SAPup release lmt\_005 version 54.000

IS keyword

3821837

Phase: 27 11% PREP\_EXTENSIONS/IS\_SELECT - BW\_CONT

Enter the IS keyword of [SAP Note 1943931](#) . (IS "BI\_CONT\_XT", version "757")

This is SAPup version lmt\_005, build SAPup release lmt\_005 version 54.000

IS keyword

5156796

Phase: 28 11% PREP\_EXTENSIONS/IS\_SELECT - BW\_CONTEXT

Enter the IS keyword of [SAP Note 1577441](#) . (IS "DMIS", version "2011\_1\_731")

This is SAPup version lmt\_005, build SAPup release lmt\_005 version 54.000

IS keyword

4690407

Phase: 29 11% PREP\_EXTENSIONS/IS\_SELECT - DMIS 2011\_1\_731

11% Process is in error state

Current Phase: PREP\_EXTENSION/ADDONSEPARATION

Repeat Phase

Severe error(s) occurred in phase PREP\_EXTENSION/ADDONSEPARATION!

Last error code set: The MOBILE functionality is used but the 'SUPDOE' addon is not included in the xml file

Phase: 30 11% PREP\_EXTENSION/ADDONSEPARATION

If you come along this error message, you must add the SPUDOE Add-On (K-731AHINSUPDOE.SAR) to the stack.xml despite if it was in use or not. Update your stack.xml with the additional Add-On needed.

[Note 1651470 - Release strategy for the ABAP add-on SUPDOE](#)

The screenshot shows the SAP Hana Migration Steps interface. At the top, a progress bar indicates "11.6 % done (in phase: PREP\_EXTENSIONS/IS\_SELECT)". Below it, a navigation bar shows steps 1 through 6: Extraction, Configuration (highlighted in blue), Checks, Preprocessing, Execution, and Postprocessing. A section titled "Decision About Add-On PCAI\_ENT" contains three options: "Upgrade the add-on with SAINT package.", "Keep the add-on with your version.", and "Delete the add-on with SAINT package actively." (the third option is selected). Below this, a message says "Phase: 31 11% PREP\_EXTENSIONS/IS\_SELECT - PCAI\_ENT".

Phase: 31 11% PREP\_EXTENSIONS/IS\_SELECT - PCAI\_ENT

Select Support Packages You Want to Include

Select the Support Packages that you want to include:  
You need this if the current package level can only be retained with equivalent Support Packages of the target release.

Compo...	Release	Export ...	Minimu...	Equival...	Maxim...	Calcula...	Current...	Status
SAP_ABA	740	8	12	12	12		12	
SAP_GW...	740	8	12	12			12	
SAP_UI	740	9	13	13			13	
SAP_BA...	740	8	12	12	12		12	
ST-PI	740	0	2	2			2	

Depending on the number of available files in the download directory this can be a time-consuming phase.

On Win64 based system make sure, that the directory /sapmnt/<SID>/download is read/write accessible from the <sid>adm and SAPService<SID> to prevent errors and switch off the virus scanner during this phase. With the Advantage of the Service Releases SR2 ≤ SP08, only the Delta to the latest Support Stack must be calculated.

12% Process is in dialog state

Current Phase: PREP\_EXTENSION/BIND\_PATCH

Select Support Packages You Want to Include

Select the Support Packages that you want to include:  
You need this if the current package level can only be retained with equivalent Support Packages of the target release.

Comp...	Release	Export ...	Minimu...	Equival...	Maxim...	Calcul...	Curren...	Status	
SAP_ABA	740	8	12	12	12		12		
SAP_G...	740	8	12	12			12		
SAP_UI	740	9	13	13			13		
SAP_BA...	740	8	12	12	12		12		
ST-PI	740	0	2	2			2		
CTS_PL...	200		15	15			15		
PI_BASIS	740	8	12	12			12		
SAP_BW	740	8	12	12	12		12		
BI_CONT	757		6	6			6		
BI_CON...	757		6	6			6		
SUPDOE	731		0	0			0		
DMIS	2011_1...		6	6			8		
PCAI_ENT	100		0	0			0		
ST-A/PI	01M_B...		0	0			0		

Back Next Reset

Phase: 33 12% PREP\_EXTENSIONS/BIND\_PATCH

12% Process is in dialog state

Current Phase: PREP\_EXTENSION/BIND\_PATCH

Include SPAM Update

The program has found the following SPAM Update package:

Request	SAPKD74058
Version	0058
Text	SPAM/SAINT Update - Version 740/0058

Choose how you want to proceed:

Include SPAM update SAPKD74058  
 Search for newer SPAM update in \\wdf4368\sapmnttrans\EPS\  
 Do not include a SPAM update

Phase: 34 12% PREP\_EXTENSIONS/BIND\_PATCH - SPAM update

12% Process is in dialog state

Current Phase: PREP\_EXTENSION/BIND\_PATCH

Include Change Request

Enter a Customer Change Request that you want to include into the procedure. If you do not want to include a Customer Change Request, leave the field empty.

 Add  Remove

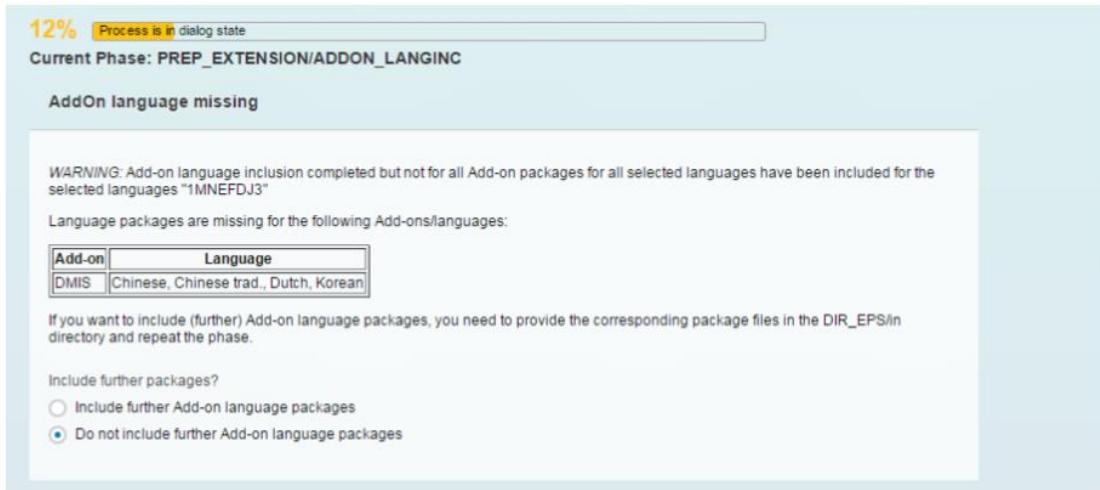
Request	Status
---------	--------

Phase: 35 12% PREP\_EXTENSIONS/BIND\_PATCH - include change request

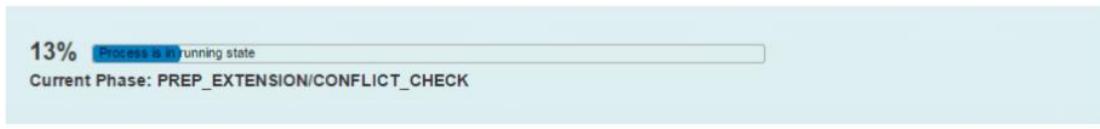
The Report SCWN\_TRANSPORT\_NOTES allow you to add SAP Notes as transports, instead of having this interaction screen. See more details here - [Note 1788379 - Transport of SAP NOTES](#)

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

The Report SCWN\_TRANSPORT\_NOTES allow you to add SAP Notes as transports, instead of having this interaction screen. See more details here - [Note 1788379 - Transport of SAP NOTES](#)



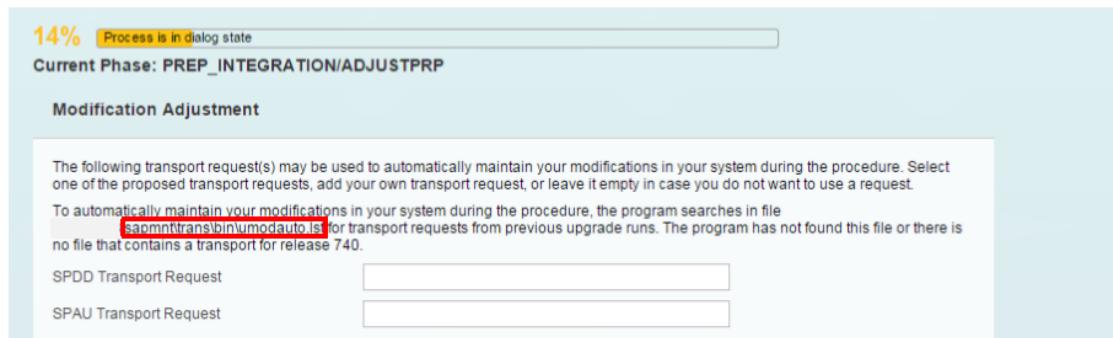
Phase: 36 12% PREP\_EXTENSIONS/ADDON\_LANGINC - DMIS Add-On decision



Phase: 37 13% PREP\_EXTENSIONS/CONFLICT\_CHECK - Note 889596

If errors occur, the Report RSSPAM\_PREPARE\_UC is started by preparation report UMG\_ADD\_PREP\_STEP and its only action is to delete the contents of table OCSCMPLOBJ.

This table is used by the Support Package Manager and by the Add-On Installation Tool to save formatted object lists for add-on conflict verification during the import of Support Packages. Since the contents of the table depend on the type of character encoding used (UNICODE, non-UNICODE), the contents must be deleted prior to a UNICODE conversion.



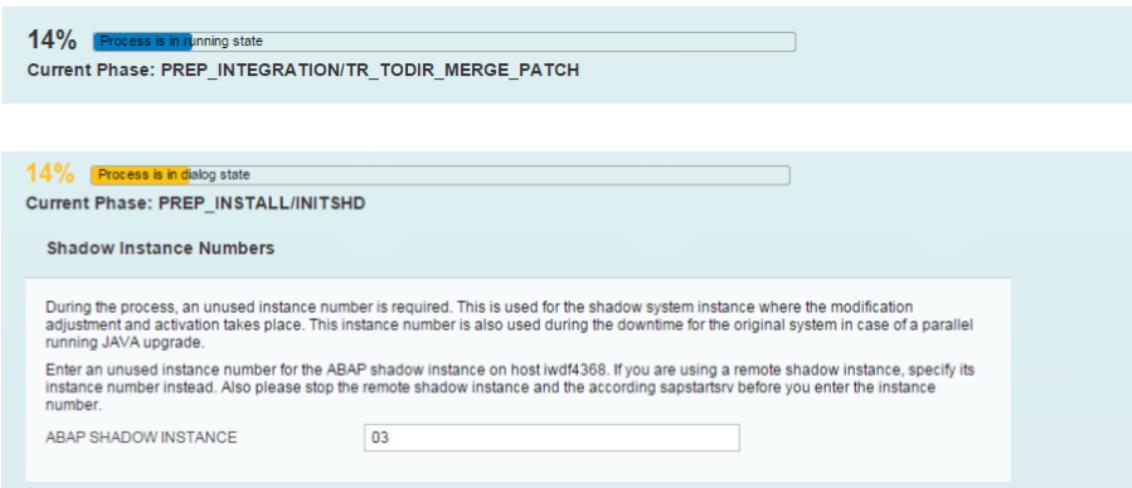
Phase: 38 14% PREP\_INTERACTION/ADJUSTTPRP

If you prepare the file `\server\sapmnt\trans\bin\umodauto.lst` then you have to provide the entries in the following format before you enter the phase.

SPDD/SPAU 740 trcorr, for example

SPAU 740 CIHK900031

If the transport was created for a different SP, you have to tick the option box in addition.



Phase: 39 14% PREP\_INSTALL/INITSHD - advanced option

14% Process is in dialog state

Current Phase: PREP\_INSTALL/SHDINST\_CPY

**Shadow System Profiles**

If you have run the procedure before in an identical environment, you can use the profiles generated there for the shadow system. If you want to use this feature, make sure that these profiles are located in the subdirectory <save>. Do you want to use the profiles from <save> subdirectory?

Yes  
 No

Phase: 40 14% PREP\_INSTALL/SHDINST\_CPY

15% Process is in running state

Current Phase: PREP\_SHDTABLES/RUN\_DBCLONE\_INIT

15% Process is in dialog state

Current Phase: PREP\_SPACECALC/INIT\_CNTRANS\_NEW

Continue with roadmap step "Checks"

Current status: continue with phase PREP\_SPACECALC/INIT\_CNTRANS\_NEW  
Previous step finished successfully and the next one will be started.

Note that additional mandatory manual steps might be listed in the file "CHECKS.LOG" (html)  
Identical content, but in TEXT format, can be found in the file "CHECKS.TXT" (plain text)  
It contains entries of type info.

In order to complete the procedure, please process any manual tasks listed there.

Phase: 41 15% PREP\_INSTALL/JOB\_FILL\_TPF\_CHK\_PHASES - END (2)

## Phase Checks (3)

16% Process is in running state  
Current Phase: PREP\_SPACECALC/TR\_GET\_SPCREQ\_IMP

16% Process is in running state  
Current Phase: PREP\_SPACECALC/TR\_GET\_SPCREQ\_ADD

16% Process is in running state  
Current Phase: PREP\_SPACECALC/TR\_GET\_SPCREQ\_DISC

17% Process is in running state  
Current Phase: PREP\_GENCHECKS/JOB\_STRU\_TADIR\_GEN\_1

Phase: 42 17% PREP\_GENCHECKS/JOB\_RSUPGRCHECK\_PRE

18% Process is in running state  
Current Phase: PREP\_GENCHECKS/JOB\_TS\_UPG41

Phase: 43 18% PREP\_GENCHECKS/JOB\_TS\_UGR41 - report RSUGRCHECK

18% Process is in running state  
Current Phase: PREP\_GENCHECKS/NTACT\_CHK

20% Process is in dialog state  
Current Phase: PREP\_PREPROC/SAVE\_VAR\_CHK

### Save Variants

The next phase runs a report which saves and restores variants from your system. Read [SAP Note 1696821](#) carefully.

Do you want to run the JOB\_RASUVAR1(2) phases?

- Yes  
 No

Phase: 44 20% PREP\_PREPROC/SAVE\_VAR\_CHK - save variants

20% Process is in running state  
Current Phase: PREP\_PREPROC/JOB\_RASUVAR1

20% Process is in running state  
Current Phase: PREP\_PREPROC/RUN\_RSWBO230\_PRE

20% Process is in dialog state  
Current Phase: PREP\_PREPROC/SUBMOD\_MIG\_BI\_TASKS\_PREP/MIG2NDDB\_HANA\_BW\_PARAMS

#### Parameters for BI-Specific reports

Within the next phases certain BI housekeeping tasks will be performed. Please decide which data shall be deleted in the database.  
**Caution:** The data deleted during the next phases as specified in the fields below cannot be restored by resetting upgrade process.

Enter the amount of data to be deleted:

Delete temporary BW query bookmarks  
older than ... days:

2

Delete sent BW query bookmarks older than  
... days:

2

Delete BW traces older than ... days:

2

Delete BW statistics older than ... days:

2

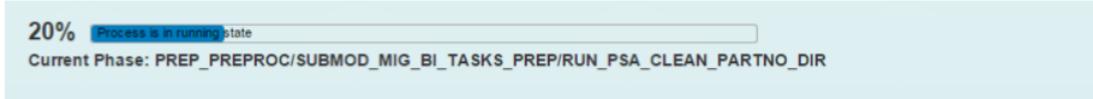
Phase: 45 20% PREP\_PREPPROC/SUBMOD\_MIG\_BI\_TASKS\_PREP/MIG2NDDB\_HANA\_BW\_PARAMS

18% Process is in dialog state  
Current Phase: PREP\_PREPROC/REQ\_ASU\_RUN

[Start ASI I Toolbox](#)



Furthermore in this Phase and in the next Phases additional cleaning Tasks are running, which are part of the pre migration task list - **SAP\_BW\_BEFORE\_MIGRATION**



Phase: 46 20% SUBMOD\_MIG\_BI\_TASKS\_PREP/RUN\_PSA\_\*

[Note 2182306 - 730SP14: PSA Version create step in DMO tool hangs](#)

Depending on the size of the source database these Phases can be very time intensive. Cleaning out the PSA beforehand can save a lot of time in advance, Reports

**RSAR\_PSA\_CLEANUP\_DIRECTORY** and **RSAR\_PSA\_CLEANUP\_DEFINITION**

Note 2026343 - SP34: Performance improvement of PSA Housekeeping tasks Note 2026853 -

PSA: Dump in RSAR\_PSA\_CLEANUP\_DIRECTORY - PSA table are more than 2 billion rec. Note

2062928 - SP34: Incorrect behavior during Extraction of data from DataSource (PSA) using DTP

Note 2129477 - 730SP14: Selection Option unavailable for the report

**RSAR\_PSA\_CLEANUP\_DEFINITION** Note 2132264 - SP35: Incorrect error messages shown report

'RSAR\_PSA\_CLEANUP\_DIRECTORY/\_MS Note 2190948 - 730SP14: DMO/Housekeeping Task

'PSA\_MAPPING\_CHECK' inac. older version of PSAs KBA Note 1909069 - error DA093 &

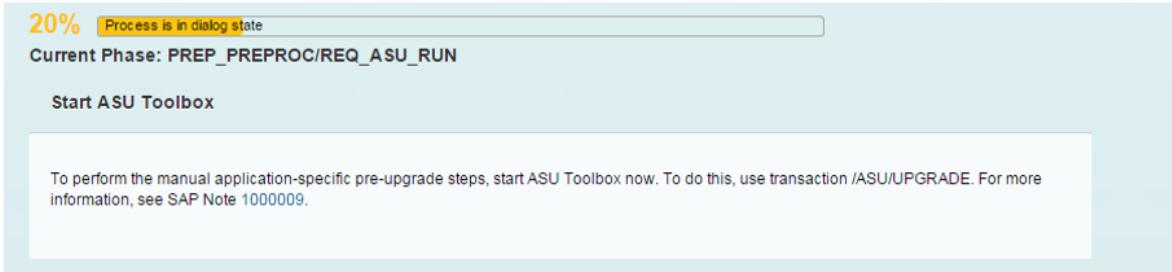
RSM1156 during PSA/changelog deletion

<b>Table RSADMINA Display</b>	
CUSTOMIZID	BW
BW USER	ALEREMOTE
DEBUG USER	
BEX REQUEST	
DBSYSDEPGLBL	
DBSYSDEPREAD	
HIERREL	
MONFILLED	
IDOCLASTNBR	93
ISLASTNBR	0
TSLASTNBR	0
MONARCHNBR	0
XPRADONE	
BWMANDT	3
ODSMAXTASKS	0
ODSMINPAKSIZE	0
ODSACTTIMEOUT	0
ENQ PROT ON	
ODSSERVGROUP	
BWMANDTRFC	
TPBWMANDTRFC	CIHCLNT003
MDINSRECBYREC	
TREX RFC DEST	TREX_CIM_003
PAK MD DEL	X
TLOGO EXEC DISAB	

Phase: 47 - Edit table RSADMINA - select BEX REQUEST to delete

Check that the table RSADMINA (transaction SE16) the entry BEX REQUEST is removed. Later in the process the correct entry TPBWMANDTRFC to logon on will be used as well. In case of Oracle and DB6 you also must create additional temporary table spaces. Example for DB6:  
 Create tablespace MIG#ES740DX with 7680 MB Create tablespace MIG#ES740IX with 4890 MB  
 Create tablespace MIG#EL740DX with 5110 MB Create tablespace MIG#EL740IX with 420 MB  
 db2 -tvf DB6TBSXT.CLP

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



Phase: 48 20% PREP\_PREPROC/REQ\_ASU\_RUN - start ASU toolbox

Transaction /ASU/UPGRADE (Note 1000009)

ASU Toolbox  
Import New ASU Content Definition  
ASU Scenario/Version Description Created by  
BW Upgrade with DMO  
20140314111111 BW specifics for Upgrade with DMO from BW 7.0x or 7.... I008817  
SAP Netweaver BI  
SAP Netweaver04s BI  
Selected ASU Content Version  
Scenario BW Upgrade with DMO  
Version 20140314111111  
Description BW specifics for Upgrade with DMO from BW 7.0x or 7.3x  
Task List 0-ASU00032

ASU Schedule Manager: Display - BW specifics for Upgrade with DMO from  
User Notes On Display/Change Task List  
Task List Severity Descript. Note Docu. UserRemark Status Spool List Jo...  
Scenario "BW Upgrade with DMO" Version "20140314111111"  
Preparation Steps  
Manual Preparation Steps  
Check some notes before upgrade (Obligatory)  
Add-On Compatibility of SAP NetWeaver 7.4 (Obligatory)  
Domain RSCHAVL will be changed from CHAR60 to SSTRING 1333. (Obligatory)  
Check/Repair Status of Info Objects (Optional)  
Check inconsistencies with RC7\* Tables (Optional)

20% Process is in dialog state  
SUM ABAP process started  
Continue with roadmap step "Checks"  
Current status: continue with phase PREP\_GENCHECKS/CONFCHK  
The step did not complete successfully and will continue at the point it failed.  
Please be advised that additional mandatory manual steps might be listed in the file "CHECKS.LOG" (HTML)  
resp. - in a more human readable form - in "CHECKS.TXT" (plain text)  
In order to complete the procedure, please process any manual tasks listed there.

Phase: 50 20% MAIN\_INIT/BEGIN - END (3)

### Phase Preprocessing (4)

Note 1764085 - Error Update records still exist - Please process during phase JOB\_RSVBCHCK\_D  
Note 1705774 - Error in phases MAIN\_SWITCH/JOB\_RSVBCHCK2 or  
MAIN\_SWITCH/JOB\_RSVBCHCK\_D; Checks after phase MAIN\_INIT/JOB\_RSVBCHCK\* were

negative. Note 2089122 - SAP HANA DB: CDS view with external view as base object cannot be created in the database

Note 2519247 - MAIN\_NEWBAS/XPRAS\_AIIMMRG: Invalid objects: 'After Import' terminated

Settings in table RSADMIN to optimize runtime and errors in Phase XPRAS\_AIIMMRG:

Note 1629923 - Skip BW technical content objects activation during upgrade Set the parameter with the Report SAP\_RSADMIN\_MAINTAIN into table RSADMIN

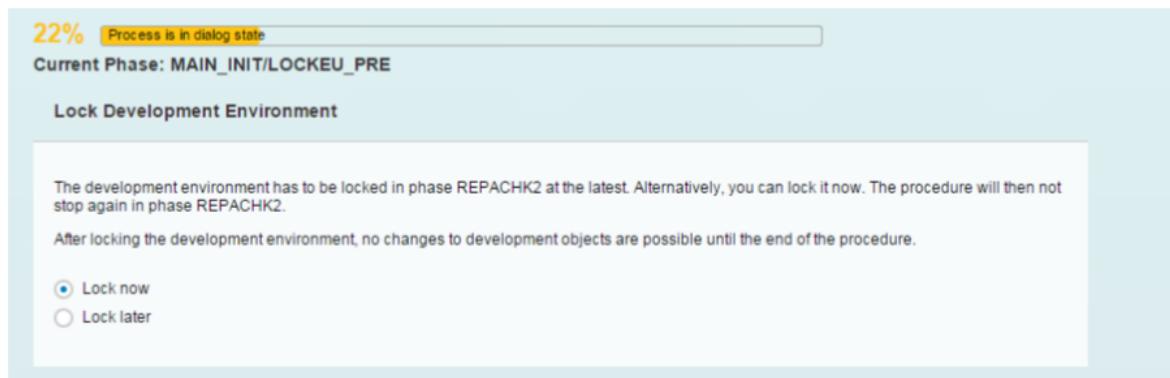
SKIP\_TCO\_ACTIVATION\_XPRA = X

You can run the XPRA RS\_TCO\_ACTIVATION\_XPRA after the technical upgrade has finished. Make sure the parameter mentioned above is removed from table RSADMIN before executing the XPRA.

Note 1649901 - Time-critical processes in BW upgrade/Support Package import

PSEUDO\_D\_AFTER\_IMPORT\_D = '' REPL\_D\_AFTER\_IMPORT\_D = X

Note 1934939 - CX\_SY\_IMPORT\_MISMATCH\_ERROR dump during XPRA of a transport during upgrade RSVERS\_BI\_IMPORT\_ALL = ''

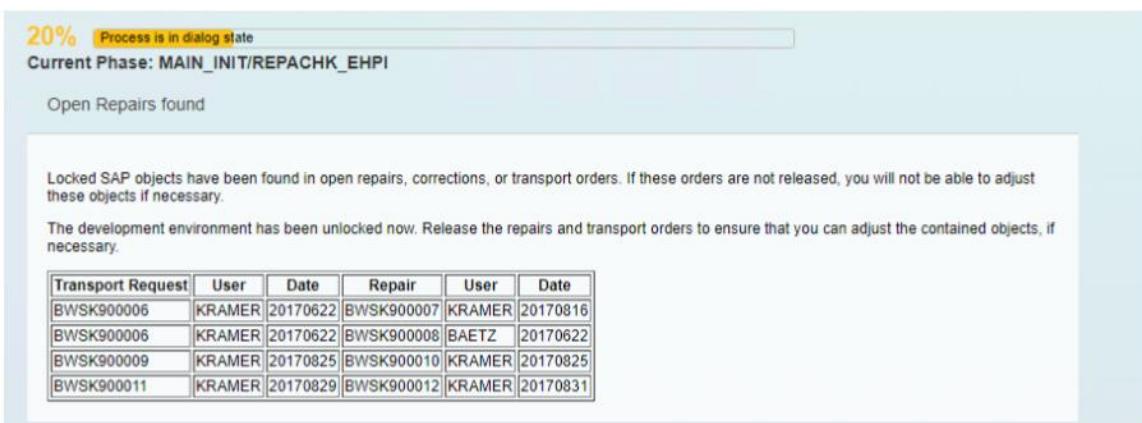


Phase: 51 22% MAIN\_INIT/LOCKEU\_PRE - lock development environment



Despite what information you might have from other sources, from now on you cannot maintain BW objects anymore without doing it on your own risk!

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



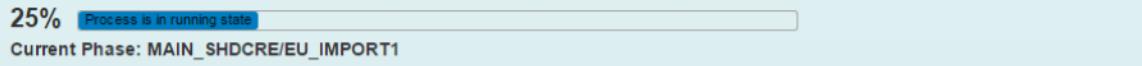
Phase: 52 21% MAIN\_INIT/REPACHK1 - check open transports



Phase: 53 24% MAIN\_SHDRUN/SUBMOD\_SHDDBCLONE/DBCLONE



Phase: 53 24% MAIN\_SHDRUN/SUBMOD\_SHDDBCLONE/DBCLONE



Phase: 54 25% MAIN\_SHDCRE/EU\_IMPORTx - R3trans depending



Phase: 55 25% MAIN\_SHDCRE/SHADOW\_IMPORT\_UPG1 - R3trans depending



1 Extraction    2 Configuration    3 Checks    4 Preprocessing    5 Execution    6 Postprocessing

6 done (in phase: MAIN\_SHDRUN/SUBMOD\_DIFFEXP/ADJUSTCHK\_UPG)

### Decide About Incomplete Modification Transport

**CAUTION:** The program has found the transport "CIHK900031" for SPAU but it does not contain all objects which need adjustment.

Nevertheless you may decide to use this transport. Check the log file for RGUMOD01: UMODPROT.CIH or run transaction SPAU now for a more detailed description.

If you use the transport by choosing "Yes" below and later want to use a different one, you have to reset the whole procedure! If you choose "No", be prepared to run transaction SPAU after the procedure.

Double checking the result of this import requires running transaction SPAU after the procedure (recommended).

Do you want the transport to be imported automatically?

Yes, but do not double check  
 Yes, but double check  
 No

Phase: 56 34% MAIN\_SHDRUN/SUBMOD\_DIFFEXP/ADJUSTCHK\_UPG

35% Process is in running state

Current Phase: MAIN\_SHDRUN/START\_SHDI\_FIRST

Phase: 57 35% MAIN\_SHDRUN/START\_SHDI\_FIRST

35% Process is in running state

Current Phase: MAIN\_SHDRUN/ALTNTAB\_FILL

36% Process is in running state

Current Phase: MAIN\_SHDRUN/DDIC\_UPG

Phase: 58 36% MAIN\_SHDRUN/DDIC\_UPG - R3trans depending

37% Process is in dialog state

Current Phase: MAIN\_SHDRUN/ACT\_UPG

#### Repository Modifications

You must now include your repository modifications in the new SAP import.

The program has found 49 modified objects that you need to adjust and 0 objects are automatically maintained by import of an adjustment transport that you have included into this procedure.

If you do not have included adjustment transports, please check log file SPDD\_RESET\_CANDIDATES.CIH for potential candidates to reset to SAP original. You may use report RSUPG\_SPDD\_RESET\_CANDIDATES in the shadow system to automatically perform this reset to SAP original for all identified candidates.

To adjust your repository, proceed as follows:

37% Process is in running state  
Current Phase: MAIN\_SHDRUN/ACT\_UPG

Phase: 60 37% MAIN\_SHDRUN/ACT\_UPG - Batch Process depending (SHD)

37% Process is in error state  
Current Phase: MAIN\_SHDRUN/ACT\_UPG

**Repeat Phase**

Checks after phase MAIN\_SHDRUN/ACT\_UPG were negative!

Last error code set: Detected 167 errors summarized in 'ACTUPG.ELG'  
Calling 'D:\usr\sap\CIH\SUM\abap\exe\tp' failed with return code 8, check D:\usr\sap\CIH\SUM\abap\log\SAPup.ECO  
tp used shadow connect

**ERROR:**  
Detected the following errors:

```
# D:\usr\sap\CIH\SUM\abap\log\SAPA731ESI.CIH:  
1EED0519 "DDL Source" "ACM_DDLSTOBVIEW_ONEROW" could not be activated  
1EED0519 "DDL Source" "ACM_DT_DEPENDENCIES" could not be activated  
1EED0519 "DDL Source" "ACM_USED_AUTHVIEW_OBJECTS" could not be activated  
1EED0519 "DDL Source" "SACMAT2RT_VIEW" could not be activated  
1EED0519 "DDL Source" "SACMAT_ROLES_AND_ITS_ASPECTS" could not be activated  
1EED0519 "DDL Source" "SADL_CDS_RS_SO_ROOT_PARA_ACT" could not be activated  
1EED0519 "DDL Source" "SADL_SB_AUNIT_SCARR" could not be activated  
1EED0519 "DDL Source" "SADL_SB_AUNIT_SFLIGHT" could not be activated  
1EED0519 "DDL Source" "SADL_SB_AUNIT_SPFLI" could not be activated  
1EED0519 "DDL Source" "SADL_V_ANNOTATIONS_RT" could not be activated  
1EED0519 "DDL Source" "SADL_V_EXP_NAMING" could not be activated  
1EED0519 "DDL Source" "SADL_V_EXP_PRODUCT" could not be activated  
1EED0519 "DDL Source" "SADL_V_EXP_SEARCH" could not be activated  
1EED0519 "DDL Source" "SADL_V_EXP_SO" could not be activated
```

...skipped 249 more lines.  
Please see ACTUPG.html for more information.

**System Has Been Unlocked**

The shadow system has been unlocked to enable login for non-DDIC users. When you repeat this phase, the system will be locked again.

Repeat phase MAIN\_SHDRUN/ACT\_UPG to continue at the point it stopped

The shadow system has been unlocked to enable login for non-DDIC users. When you repeat this phase, the system will be locked again.

Repeat phase MAIN\_SHDRUN/ACT\_UPG to continue at the point it stopped

Initialize phase MAIN\_SHDRUN/ACT\_UPG to restart it from the beginning

INIT

Accept errors and repeat phase MAIN\_SHDRUN/ACT\_UPG

ACCEPT

Phase: 61 37% MAIN\_SHDRUN/ACT\_UPG – create CDS views

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

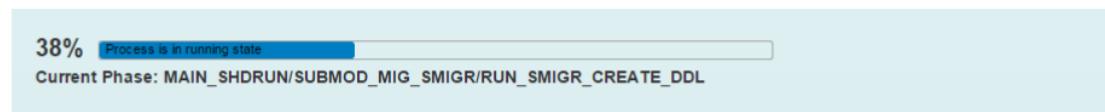
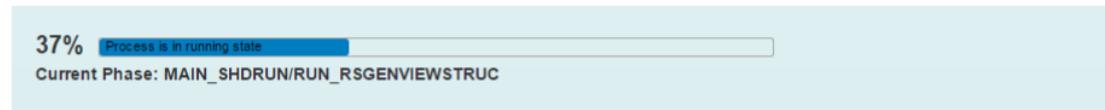
[Note 2086899 - Upgrade phase MAIN\\_SHDRUN/ACT\\_UPG returns error messages](#)

Repeat the activation phase ACT\_UPG within the DMO/SUM procedure. Several repetitions might be required.

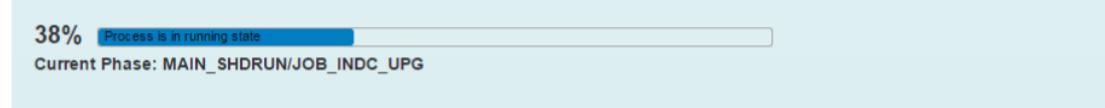
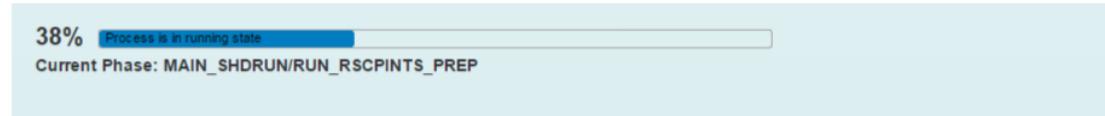
Unlock the shadow Instance

[http://wiki.scn.sap.com/wiki/display/TechTSG/\(Un\)lock+the+shadow+instance](http://wiki.scn.sap.com/wiki/display/TechTSG/(Un)lock+the+shadow+instance)

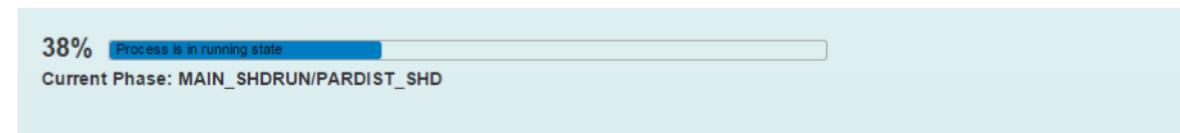
. /SAPup unlockshd



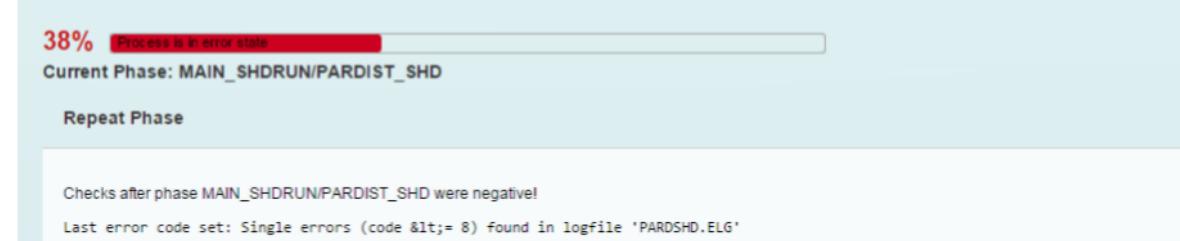
Phase: 62 38% MAIN\_SHDRUN/SUBMOD\_MIG\_SMIGR/RUN\_SMIGR\_CREATE\_DDL



Phase: 63 38% MAIN\_SHDRUN/RUN\_INDC\_UPG



Phase: 64 38% MAIN\_SHDRUN/PARDIST\_SHD



## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

Detected the following errors:

```
# D:\usr\sap\CIH\SUM\abap\log\DS150622.CIH:  
2 ED0307 Platform.....: "CUSTOMER"->"CIH"("740")/"MSSQL/WindowsNT/iwdf4368"  
2 ED0311 Tool.....: "BATCH"/"LSDSBU02"  
2 ED0315 Log.....: "F", "D:\usr\sap\CIH\SUM\abap\tmp\DS150622.CIH"  
2 ED0302 *****  
4 EDAS07 -> "ACMAT2RT_V" - - - "iwdf4368_13_17552" "21:52:16" "22.06.2015" - - - - -  
A2EESDDL_PARSER_MSG 000 Syntax Errors  
2EEDA122 Error generating the program for "ACMAT2RT_V" "  
2EEDA476 Code for creating view "ACMAT2RT_V" could not be generated  
2EEDA471 Result "ACMAT2RT_V": Action: "CIN" Mode flag: "E" Return code: "95"  
4 EDAS07 -> "ACMATDT2RT_NLNKV" - - - "iwdf4368_13_17552" "21:52:16" "22.06.2015" - - - - -  
A2EESDDL_PARSER_MSG 000 Syntax Errors  
2EEDA122 Error generating the program for "ACMATDT2RT_NLNKV" "  
2EEDA476 Code for creating view "ACMATDT2RT_NLNKV" could not be generated  
2EEDA471 Result "ACMATDT2RT_NLNKV": Action: "CIN" Mode flag: "E" Return code: "95"  
...skipped 118 more lines.  
Please see PARDSHD.html for more information.
```

### Trouble Ticket Generation

A trouble ticket and an archive with all relevant log files have been generated.  
Trouble ticket: "D:\usr\sap\CIH\SUM\abap\log\SAPup\_troubleticket.log"  
Log archive: "D:\usr\sap\CIH\SUM\abap\log\SAPup\_troubleticket\_logs.sar"

Repeat phase MAIN\_SHDRUN/PARDIST\_SHD to continue at the point it stopped

Initialize phase MAIN\_SHDRUN/PARDIST\_SHD to restart it from the beginning

INIT

Phase: 65 38% MAIN SHDRUN/PARDIST SHD

40%

Process is in running state

Current Phase: MAIN\_SHDRUN/PARDIST\_SHD2

Phase: 66 40% MAIN\_SHDRUN/PARDIST\_SHD2

42%

Process is in running state

Current Phase: MAIN\_SHDIMP/PARMVNT\_SHD

Phase: 67 44% MAIN\_SHDIMP/PARMVNT\_SHD

[Note 589296 - Problems w/ database links during the System Switch Upgrade](#)

45%

Process is in running state

Current Phase: MAIN\_SHDIMP/SUBMOD\_SHDALIASCRE/SCEEXEC\_ALIAS

Repeat Phase

Severe error(s) occurred in phase MAIN\_SHDIMP/SUBMOD\_SHDALIASCRE/SCEEXEC\_ALIAS!

Last error code set: Non single errors (code > 8) found in logfile 'SQLEXEAL.LOG'  
3 error during parallel execution of processes, check 'SQLEXEAL.LOG' for details  
6 processes failed, check 'SCEEXEC\_A.\*' for details

```
ERROR:  
Detected the following errors:  
# D:\usr\sap\CIH\SUM\abap\log\PTALDC15.LOG:  
3 ETQ398 SQL: DROP VIEW [cih_shd].[TBAC_TENORT]  
3 ETQ398 SQL: CREATE VIEW [cih_shd].[TBAC_TENORT] AS SELECT * FROM [cih].[TBAC_TENORT]  
3 ETQ398 SQL: DROP VIEW [cih_shd].[TBAT_PRICEQUOT_O]  
1 ETQ000 ======  
4 ETQ010 Date & Time: 20150711131153  
1EETQ008 Error message: DBSL error 99 (db code 3705):  
1EETQ009X Cannot use DROP VIEW with 'cih_shd.TBAT_PRICEQUOT_O' because  
1EETQ009X 'cih_shd.TBAT_PRICEQUOT_O' is a table. Use DROP TABLE.  
1EETQ003 exit code: "20"
```

### Trouble Ticket Generation

A trouble ticket and an archive with all relevant log files have been generated.  
Trouble ticket: "D:\usr\sap\CIH\SUM\abap\log\SAPup\_troubleticket.log"  
Log archive: "D:\usr\sap\CIH\SUM\abap\log\SAPup\_troubleticket\_logs.sar"

- Repeat phase MAIN\_SHDIMP/SUBMOD\_SHDALIASCRE/SCEEXEC\_ALIAS to continue at the point it stopped

Phase: 68 45% MAIN\_SHDIMP/SUBMOD\_SHDALIASCRE/PSCRGEN\_ALIAS

[Note 1844436 - ORA-00955: name is already used by an existing object](#)

SQLEXEAL.LOG ➔ DROP TABLE <sid>\_shd.TBAT\_PRICE\_FWD

46% Process is in error state

Current Phase: MAIN\_SHDIMP/SUBMOD\_SHDVIEWCRE/EU\_CLONE\_CRE\_SHDVEWS

Repeat Phase

Phase: 69 46% MAIN\_SHDIMP/SUBMOD\_SHDVIEWCRE/EU\_CLONE\_CRE\_SHDVEWS

Read/Write permissions in /SUM/abap

46% Process is in running state

Current Phase: MAIN\_SHDIMP/SUBMOD\_CP2SHD/SHADOW\_NTACT\_RECV

46% Process is in running state

Current Phase: MAIN\_SHDIMP/SUBMOD\_CP2SHD/SUBMOD\_DIFFCP2SHD/DIFFEXPABAP\_CIGPR

Phase: 70 46% MAIN\_SHDIMP/SUBMOD\_CP2SHD/SUBMOD\_DIFFCP2SHD/DIFFEXPABAP\_CIGPR

47% Process is in running state  
Current Phase: MAIN\_SHDIMP/SUBMOD\_SHDIMP/SHADOW\_IMPORT\_UPG2

Phase: 71 47% MAIN\_SHDIMP/SUBMOD\_SHDIMP/SHADOW\_IMPORT\_UPG2 - R3trans depended

47% Process is in running state  
Current Phase: MAIN\_SHDIMP/SUBMOD\_SHDIMP/SHADOW\_IMPORT\_INC

Process is in running state  
Current Phase: MAIN\_SHDIMP/SUBMOD\_SHDIMP/SHADOW\_IMPORT\_INC



Process execution in progress

4% Task is in running state  
Executing phase  
MAIN\_SHDIMP/SUBMOD\_SHDIMP/SHADOW\_IMPORT\_INC:  
Imports included Add-on and Support Packages  
into the shadow tables and the new tables

Phase: 72 47% MAIN\_SHDIMP/SUBMOD\_SHDIMP/SHADOW\_IMPORT\_INC - R3trans dependent

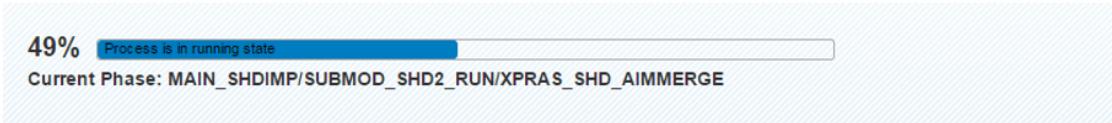
47% Process is in running state  
Current Phase: MAIN\_SHDIMP/SUBMOD\_SHDIMP/TABIM\_REDUCE

47% Process is in running state  
Current Phase: MAIN\_SHDIMP/SUBMOD\_SHD2\_RUN/NTACT\_ALTN

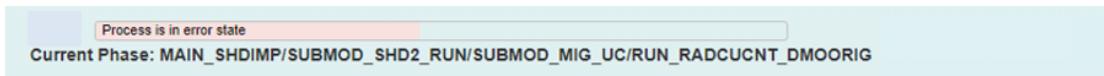
Phase: 73 47% MAIN\_SHDIMP/SUBMOD\_SHD2\_RUN/NTACT\_ALTN

49% Process is in running state  
Current Phase: MAIN\_SHDIMP/SUBMOD\_SHD2\_RUN/RUN\_RSAIMMERGE\_UPG\_SHD

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



Phase: 74 49% MAIN\_SHDIMP/SUBMOD\_SHD2\_RUN/XPRAS\_SHD\_AIMMERGE



```
4 ETG039 -----
2EETG012 "UC-Nametab does not exist for: /BIC/F100033" " "
2EETG012 "UC-Nametab does not exist for: /BIC/F100034" " "
2EETG012 "UC-Nametab does not exist for: /BIC/F100261" " "
2EETG012 "UC-Nametab does not exist for: /BIC/F100346" " "
2EETG012 "UC-Nametab does not exist for: /BIC/F100352" " "
2EETG012 "UC-Nametab does not exist for: /BIC/F100354" " "
```

```
### Phase MAIN_SHDIMP/SUBMOD_SHD2_RUN/SUBMOD_MIG_UC/JOB_UCMIG_TO_DDYTT1:
### Phase MAIN_SHDIMP/SUBMOD_SHD2_RUN/SUBMOD_MIG_UC/JOB_UCMIG_TO_DDYTT1:
### Phase MAIN_SHDIMP/SUBMOD_SHD2_RUN/SUBMOD_MIG_UC/JOB_UCMIG_TO_DDYTT1:
### Phase MAIN_SHDIMP/SUBMOD_SHD2_RUN/SUBMOD_MIG_UC/JOB_UCMIG_TO_DDYTT1:
```

Phase: 75 50% MAIN\_SHDIMP/SUBMOD\_SHD2\_RUN/SUBMOD\_MIG\_UC/JOB\_UCMIG\_TO\_DDYTT1

Check table DDYTT in case of DMO problems with DDNTT\_CONV\_UC and Phase JOB\_UCMIG\_TO\_DDYTT1 and follow the suggestion from [SAP Note 1307982](#)

[Note 1426513 - Unicode Conversion: check nametab tables](#)

[Note 2463053 - DD source table <table name> could not be read \[collection note\]](#)

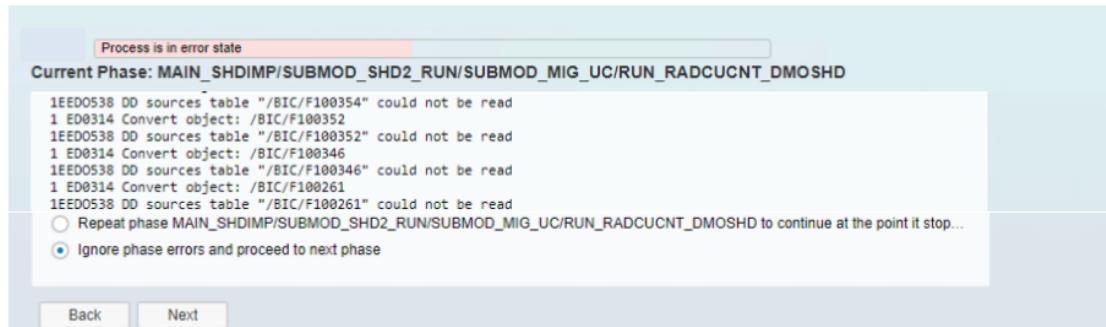
## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

Phase: 76 50% MAIN\_SHDIMP/SUBMOD\_SHD2\_RUN/SUBMOD\_MIG\_UC/JOB\_UCMIG\_TO\_DDYTT1

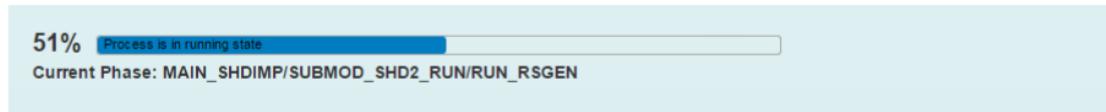
Check table DDYTT in case of DMO problems with DDNTT\_CONV\_UC and Phase JOB\_UCMIG\_TO\_DDYTT1 and follow the suggestion from [SAP Note 1307982](#)

[Note 1426513 - Unicode Conversion: check nametab tables](#)

[Note 2463053 - DD source table <table name> could not be read \[collection note\]](#)



Phase: 76 50% MAIN\_SHDIMP/SUBMOD\_SHD2\_RUN/SUBMOD\_MIG\_UC/RUN\_RADCUCNT\_DMOSHD



Phase: 77 51% MAIN\_SHDIMP/SUBMODE\_SHD2\_RUN/RUN\_RSGEN - Batch Process depending

51%   
Current Phase: MAIN\_SHDIMP/SUBMOD\_SHD2\_RUN/SUBMOD\_MIG\_DIST/NTACT\_ALTNT\_PREPMIG

Phase: 78 51% MAIN\_SHDIMP/SUBMOD\_SHD2\_RUN/SUBMOD\_MIG\_DIST/NTACT\_ALTNT\_PREPMIG

Process is in running state  
Current Phase: MAIN\_SHDIMP/SUBMOD\_SHD2\_RUN/SUBMOD\_MIG\_DIST/PARDIST\_MIG

Phase: 79 51% MAIN\_SHDIMP/SUBMOD\_SHD2\_RUN/SUBMOD\_MIG\_DIST/PARDIST\_MIG

55%   
Current Phase: MAIN\_SHDIMP/SUBMOD\_SHDDEL2/PSCRGEN\_DROP\_SHD\_TABLE2

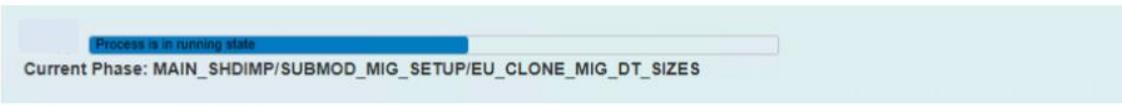
Phase: 80 55% MAIN\_SHDIMP/SUBMOD\_SHDDEL2/PSCRGEN\_DROP\_SHD\_TABLE2

57%   
Current Phase: MAIN\_SHDIMP/SUBMOD\_FATESTS/RUN\_RSDB02CK\_MOD

Phase: 81 57% MAIN\_SHDIMP/SUBMOD\_FATESTS/RUN\_RSDB02CK\_MOD

Process is in running state  
Current Phase: MAIN\_SHDIMP/SUBMOD\_MIG\_SETUP/EU\_CLONE\_MIG\_UT\_SIZES

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



Phase: 82 57% MAIN\_SHDIMP/SUBMOD\_MIG\_SETUP/EU\_CLONE\_MIG\_DT\_SIZES



Phase: 83 58% MAIN\_SHDIMP/SUBMOD\_MIG\_PREPARE/EU\_CLONE\_MIG\_DT\_PRP



55% Process is in running state

Current Phase: MAIN\_SHDIMP/SUBMOD\_MIG\_UPTIME\_EXP/EU\_CLONE\_MIG\_UT\_EXP

Process execution in progress

12% Task is in running state

processes: total=342 completed=131 running=48

Process execution in progress

97% Task is in running state

processes: total=342 completed=341 running=1

57% Process is in dialog state

Current Phase: MAIN\_MIGSERIALSETUP/HOSTCHANGE\_MOVE

DMO with System Move: Data Transfer

The tool is running on host "schwenkbw4dmo" in phase "MAIN\_MIGSERIALSETUP/HOSTCHANGE\_MOVE".

You can choose between two options for synchronization:

1. **Serial mode:**  
You only transfer the SUM directory once, in later phase "HOSTCHANGE\_STOP". There is no action required now.
2. **Parallel mode:**  
The parallel mode is based on a continuous synchronization of files and on a parallel DMO run on source and target host.

Required Actions:

1. Transfer the complete SUM directory now
2. Continue this run on the current host
3. Start the DMO run on the target host (parallel to this DMO run)
4. Synchronize the following directories continuously with the target host until phase "HOSTCHANGE\_STOP":

Phase: 84 57% MAIN\_MIGSERIALSETUP/HOSTCHANGE\_MOVE

59%

Process is in running state

Current Phase: MAIN\_SHDIMP/SUBMOD\_MIG\_UPTIME\_RUN/EU\_CLONE\_MIG\_DT\_CREATE

59%

Process is in running state

Current Phase: MAIN\_SHDIMP/SUBMOD\_MIG\_UPTIME\_RUN/EU\_CLONE\_MIG\_UT\_RUN

Phase: 85 59% MAIN\_SHDIMP/SUBMOD\_MIG\_UPTIME/EU\_CLONE\_MIG\_UT\_RUN  
- start of Preprocessing

59%

Process is in error state

Current Phase: MAIN\_SHDIMP/SUBMOD\_MIG\_UPTIME\_RUN/EU\_CLONE\_MIG\_DT\_CREATE

Repeat Phase

Checks after phase MAIN\_SHDIMP/SUBMOD\_MIG\_UPTIME\_RUN/EU\_CLONE\_MIG\_DT\_CREATE were negative!

Last error code set: Found 2 aborted processes/errors in log files.  
Found 1 failed import processes

#### Trouble Ticket Generation

A trouble ticket and an archive with all relevant log files have been generated.  
Trouble ticket: "D:\usr\sap\CIHISUM\abap\log\SAPup\_troubleticket.log"  
Log archive: "D:\usr\sap\CIHISUM\abap\log\SAPup\_troubleticket\_logs.sar"

Repeat phase MAIN\_SHDIMP/SUBMOD\_MIG\_UPTIME\_RUN/EU\_CLONE\_MIG\_DT\_CREATE to continue at the point it stopped

Initialize phase MAIN\_SHDIMP/SUBMOD\_MIG\_UPTIME\_RUN/EU\_CLONE\_MIG\_DT\_CREATE to restart it from the...

INIT

In this Case check the existence of any additional inconsistencies with shadow indexes which were left from unsuccessful BW Table Repartitioning

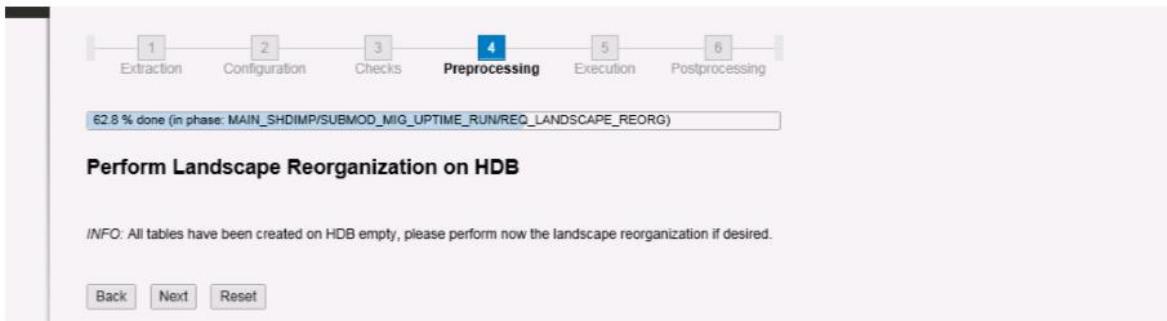
[Note 1741015 - Repartitioning of BW tables](#) (contains Report RSDU\_REPART\_UI)



Please Note that currently DSO objects with a partition number higher than 1000 are not supported by HANA. So, you must repartition the objects accordantly beforehand.

59% Process is in running state  
Current Phase: MAIN\_SHDIMP/SUBMOD\_MIG\_UPTIME\_RUN/EU\_CLONE\_MIG\_DT\_CREATE

Phase: 86 59% MAIN\_SHDIMP/SUBMOD\_MIG\_UPTIME/EU\_CLONE\_MIG\_DT\_CREATE



Phase: 87 62% MAIN\_SHDIMP/SUBMOD\_MIG\_UPTIME/REQ\_LANDSCAPE\_REORG

This Phase is very important, so please make sure you have the latest info's about the correct procedure. For a correct Landscape Reorg, at least HANA 1.0 Rev. 68 or higher is needed. For SAP BW 7.40 SP07 and higher HANA 1.0 SP08 Rev 81 and higher is needed.

For more details see also the following Blog:

<http://scn.sap.com/community/hana-in-memory/blog/2013/09/03/sap-hana-landscape-redistribution-with-sp6>

62% Process is in running state  
Current Phase: MAIN\_DTTRANS/SUBMOD\_MIG\_BI\_TASKS\_POSTDTT/RUN\_FULL\_CACHE\_RESET

Phase: 88 62% MAIN\_DTTRANS/SUBMOD\_MIG\_BI\_TASKS\_POSTDTT/RUN\_FULL\_CACHE\_RESET

62% Process is in running state  
Current Phase: MAIN\_DTTRANS/STOPSAP\_DTTRANS\_RTO\_DFRDRPL

Phase: 89 62% MAIN\_DTTRANS/STOPSAP\_DTTRANS\_RTO\_DFRDRPL

62% Process is in running state  
Current Phase: MAIN\_DTTRANS/SQLDB\_DELDBCON\_DEFAULT

Phase: 90 62% MAIN\_DTTRANS/SQLDB\_DELDBCON\_DEFAULT

62% Process is in dialog state  
Current Phase: MAIN\_DTTRANS/DOWNCONF\_DTTRANS

Preparations for Downtime

The procedure has reached the end of the "Preprocessing" step.

Perform the following actions:

- Stop all production activities now
- Ensure that no scheduled batch jobs can start anymore and await regular completion of currently running jobs
- Make sure that all users have logged out
- Isolate the central instance (primary application server instance) as described in the SUM Guide

When you confirm "Actions completed", the system will be stopped and you will be prompted to perform a complete backup.

**WARNING:** You enabled option "Testcycle", so the tool will stop in the downtime(l) after the phase EU\_CLONE\_MIG\_DT\_EXP and EU\_CLONE\_MIG\_DT\_IMP and allow to repeat the migration to further optimize the parameter settings.

You should in no case use this option for a productive run! Check the DMO Guide on how to disable this option at this point in time, if required.

- Actions completed  
 Exit program

Phase: 91 62% MAIN\_DTTRANS/DOWNCONF\_DTTRANS - preparations for downtime

62% Process is in running state  
Current Phase: MAIN\_DTTRANS/SUBMOD\_MIG BI\_TASKS\_POSTDTT/RUN\_WORKSPACE\_BACKUP\_CREATE

62% Process is in error state  
Current Phase: MAIN\_DTTRANS/SUBMOD\_MIG BI\_TASKS\_POSTDTT/RUN\_WORKSPACE\_BACKUP\_CREATE

Repeat Phase

Checks after phase MAIN\_DTTRANS/SUBMOD\_MIG BI\_TASKS\_POSTDTT/RUN\_WORKSPACE\_BACKUP\_CREATE were negative!  
Last error code set: Single errors (code <= 8) found in logfile 'BW\_WRKSPBCKCRE.ELG'

...skipped 56 more lines.  
Please see BW\_WRKSPBCKCRE.html for more information.

#### Trouble Ticket Generation

A trouble ticket and an archive with all relevant log files have been generated.  
Trouble ticket: "D:\usr\sap\CIH\SUM\abap\log\SAPup\_troubleticket.log"  
Log archive: "D:\usr\sap\CIH\SUM\abap\log\SAPup\_troubleticket\_logs.sar"

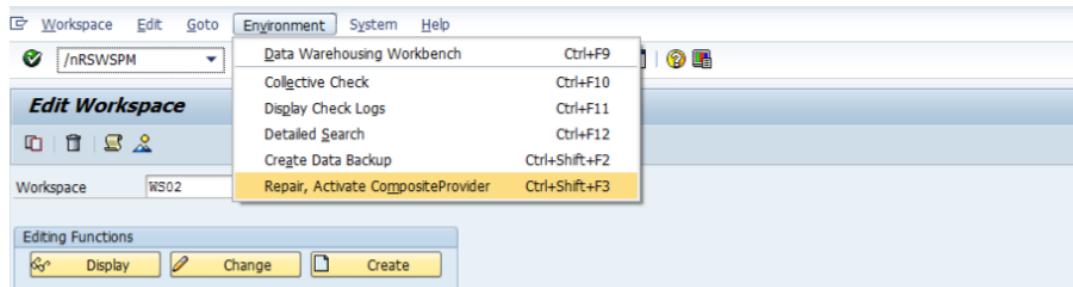
- Repeat phase MAIN\_DTTRANS/SUBMOD\_MIG BI\_TASKS\_POSTDTT/RUN\_WORKSPACE\_BACKUP\_CREATE to continue at the point of failure

Phase: 92 62% MAIN\_DTTRANS/SUBMOD\_MIG BI\_TASKS\_POSTDTT/  
RUN\_WORKSPACE\_BACKUP\_CREATE

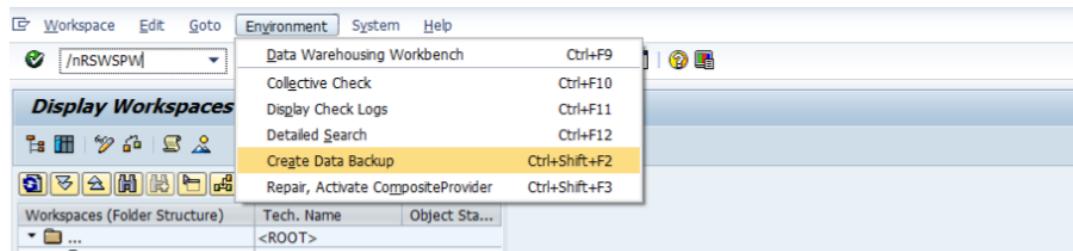
## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

To avoid errors in this phase, make sure that you have a working connection to a BWA server, as the backup program check the existence. If there are BW Workspaces which either not used anymore or can be deleted for various reasons, you can use the following option for it. Check the existence and/or the backup of the existing BW Workspaces

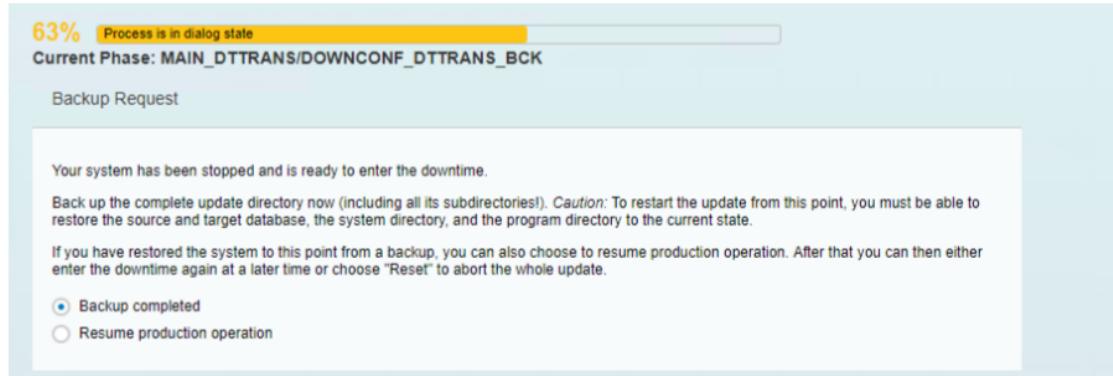
Transaction RSWSP (single WS maintenance)

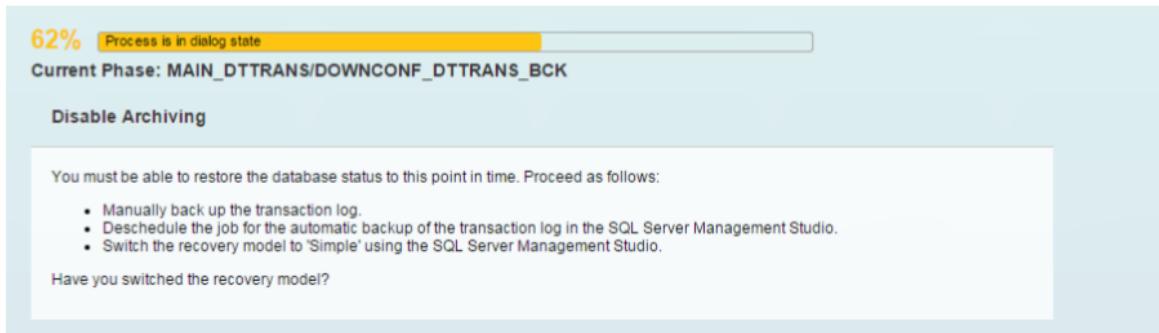


Transaction RSWSPW (mass WS maintenance)

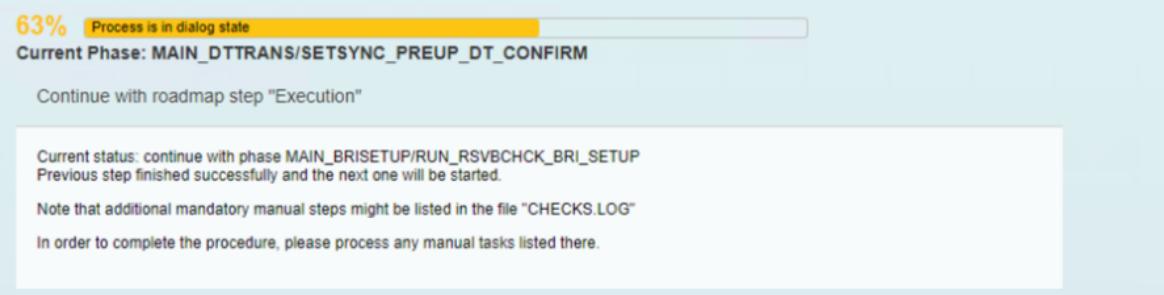


[Note 2130519 - BW on HANA upgrade and migration with DMO tool fails in phase EU\\_CLONE\\_MIG\\_DT\\_RUN with error Invalid object name '/BIC/D100XXXX'](#)





Phase: 93 63% MAIN\_DTTRANS/DOWNCONF\_DTTRANS\_BCK - backup request



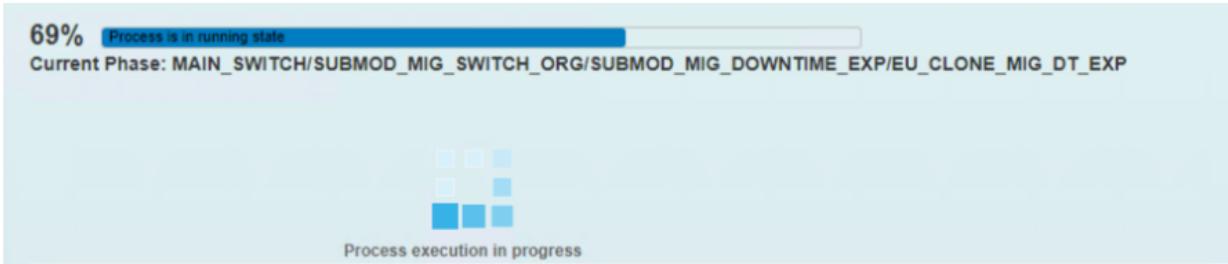
Phase: 95 63% MAIN\_DTTRANS/SETSYNC\_PREUP\_DT\_CONFIRM - END (4)

## Phase Execution (5)

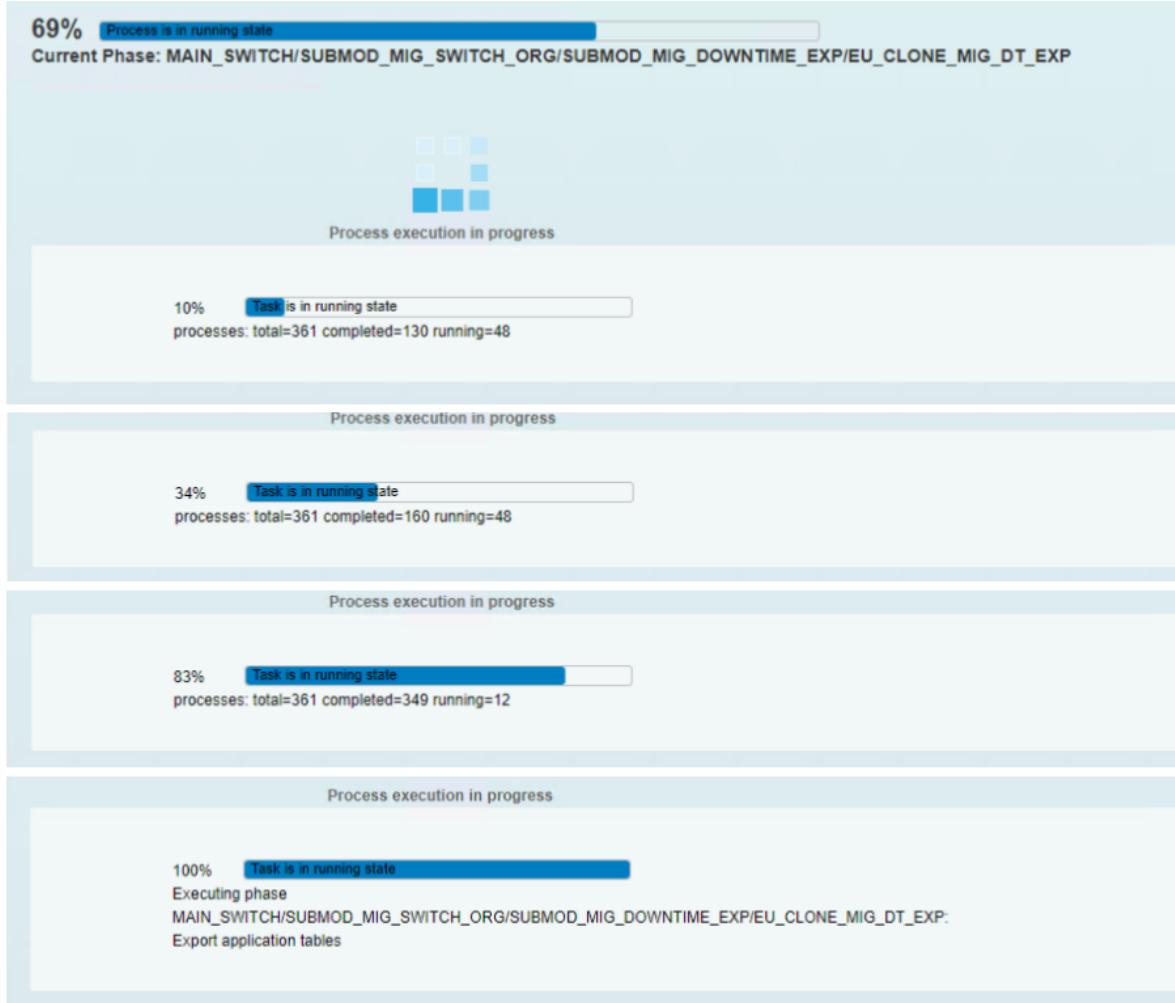
## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



Phase: 96 66% MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_ORG/STARTSAP\_MIG\_DT

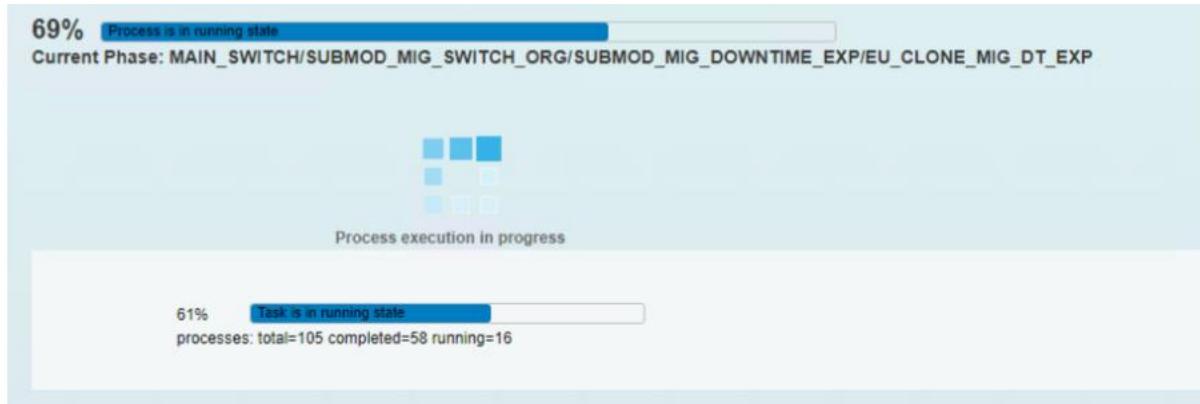


## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



Phase: 97 69% MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_ORG/SUBMOD\_MIG\_DOWNTIME\_EXP/  
EU\_CLONE\_MIG\_DT\_EXP

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



**67%** Process is in error state

Current Phase: MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_ORG/SUBMOD\_MIG\_DOWNTIME\_RUN/EU\_CLONE\_MIG\_DT\_RUN

**Repeat Phase**

Checks after phase MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_ORG/SUBMOD\_MIG\_DOWNTIME\_RUN/EU\_CLONE\_MIG\_DT\_RUN were negative!

Last error code set: Found 4 aborted processes/errors in log files.  
Found 2 failed import processes

**Trouble Ticket Generation**

A trouble ticket and an archive with all relevant log files have been generated.  
Trouble ticket: "D:\usr\sap\CIH\SUM\abap\log\SAPup\_troubleticket.log"  
Log archive: "D:\usr\sap\CIH\SUM\abap\log\SAPup\_troubleticket\_logs.sar"

Repeat phase MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_ORG/SUBMOD\_MIG\_DOWNTIME\_RUN/EU\_CLONE\_MIG\_DT\_RUN to continue

Initialize phase MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_ORG/SUBMOD\_MIG\_DOWNTIME\_RUN/EU\_CLONE\_MIG\_DT\_RUN

INIT

If you encounter problems with tables/views/match codes/cluster tables you don't want to consider during the migration use the file **/usr/sap/<SID>/SUM/abap/bin/EUCLONEDEFS\_ADD.LST** (create the file if it is not available) and specify a custom procedure for these objects, e.g.

Example:  
/BIC/AZSPOB10300 noclone

**69%** Process is in dialog state

Current Phase: MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_ORG/SUBMOD\_MIG\_DOWNTIME\_EXP/EU\_CLONE\_MIG\_DT\_EXP

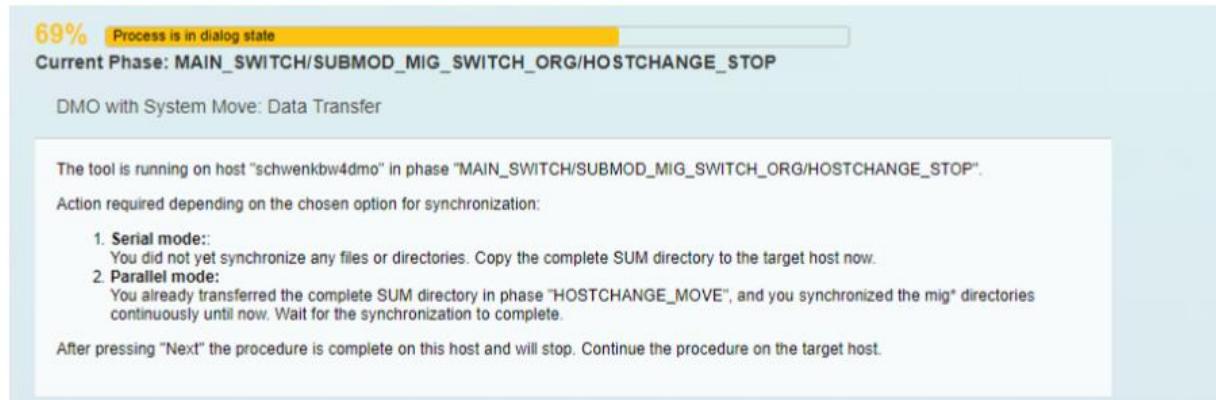
Testcycle

Downtime migration finished successfully.

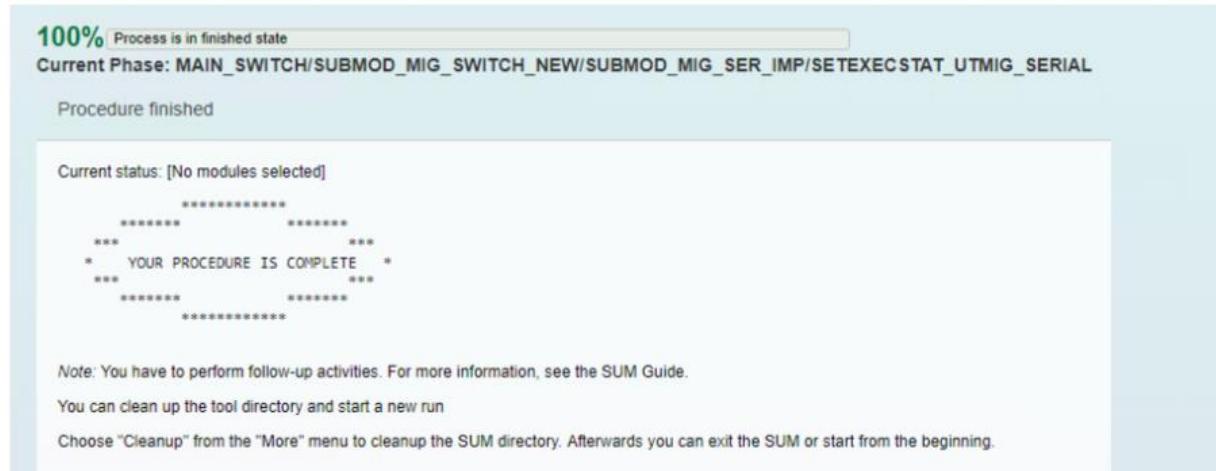
Do you want to repeat the downtime migration phase?

Yes, initialize the downtime migration phase and repeat  
 No, continue with next phase

Phase: 99 69% MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_ORG/SUBMOD\_MIG\_DOWNTIME\_EXP/  
EU\_CLONE\_MIG\_DT\_EXP



Phase: 100 69% MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_ORG/HOSTCHANGE\_STOP

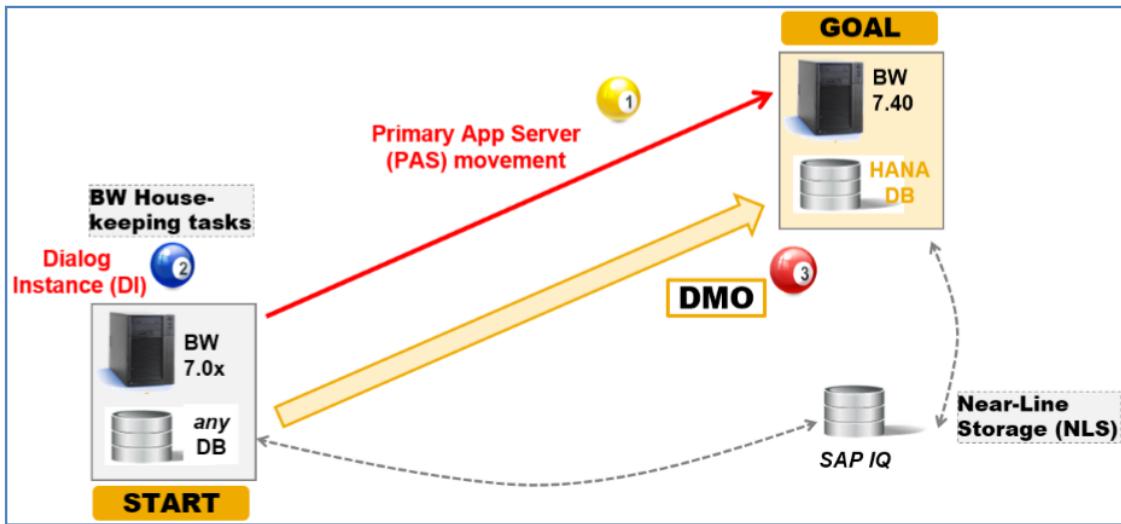


As the “serial option” was selected follow the Instruction on the screen and copy the SUM directory to the server were the HANA database resides.

## Switching the PAS to the HANA server

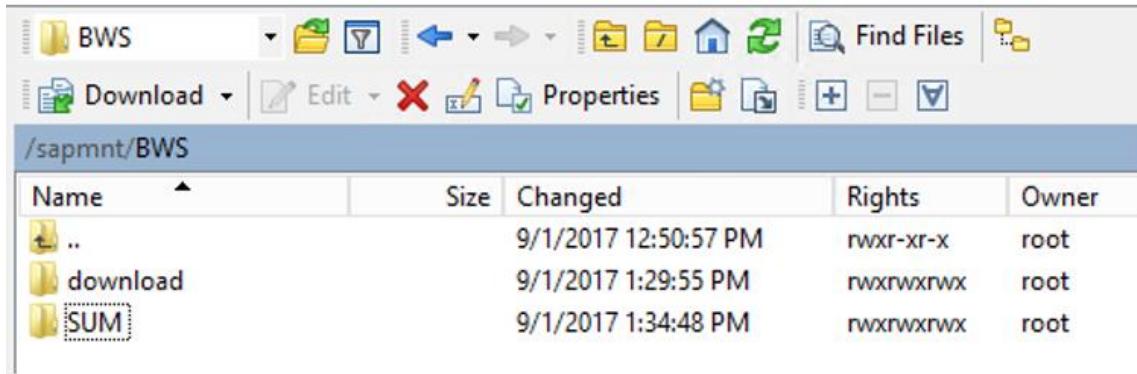
Since [SUM/DMO 1.0 SP20](#) you have the possibility to switch the PAS to the SAP HANA server during the DMO procedure. This is also helpful, if you plan to move your server in your on-premise Network to a Cloud based environment like Azure or AWS.

However, a few steps are necessary to continue with the DMO procedure. For details refer to the current [DMO of SUM 1.0 SP20 Guide \(SAP HANA\)](#).



**Copy the SUM directory** To continue, you must now copy the complete SUM directory to the new server to the same location as it was on the original server. If you not yet created the directory structure, you must manually create the /sapmnt/<SID> structure. The SUM directory might be large, as it also contains all support packages, Kernel Versions, etc. So, copying the download directory is not necessary.

**Provide the SAP Kernel of the target OS** Create the directory /sapmnt/<SID>/download and copy the target Kernel of the SAP HANA server to the directory. You will also need the files when you install the target dummy system



### Provide the SUM/DMO executables of the target OS

As you possibly move from the existing OS e.g. Windows to Linux, you also must provide the correct SUM executables for the target OS.

During the DMO procedure including system move, SUM asks you for a directory that contains the kernel files for the target system. To meet this request, proceed as follows before you start the procedure

Items Available to Download (8)						
Selected Items (1)						
<input type="checkbox"/> Name	Patch Level	File Type	File Size	Release Date	Change Date	Related Info
<a href="#">SUM10SP21_0-20006543.SAR</a>	0		470940 KB		01.09.2017	
<input checked="" type="checkbox"/> Patch 0 for SOFTWARE UPDATE MANAGER 1.0 SP21 (*)						

Create a download folder on the target system host, such as \usr\sap\<SID>\download.

Copy the two kernel files for the target into this directory. One kernel file is database independent, the other is database dependent for the target database type. Both files are for the target product version.

As all created files are written to new files, it is save to unpack now the correct SUM/DMO executables to the new structure as follows

```
server:bwsadm 55> pwd
/sapmnt/BWS
server:bwsadm 56> SAPCAR -xvf /sapmnt/software/SUM10SP21_0-20006543.SAR
```

### Install a fresh PAS of the target OS

The SUM controls the entire procedure, from checking the system requirements and importing the necessary programs through stopping production operation until production operation is resumed. The procedure is divided up into several different roadmap steps. The roadmap steps are in turn divided into individual steps. The successful completion of a step is a precondition for the success of all subsequent steps.

To install the target PAS, download the latest Version of the SWPM and the necessary files, e.g. for the target release of NetWeaver 7.40, this would be the export of NetWeaver 7.40 SR02 for HANA

Available Options	Description
<ul style="list-style-type: none"><li>▼ <input checked="" type="checkbox"/> Installation<ul style="list-style-type: none"><li>▼ <input checked="" type="checkbox"/> Application Server ABAP<ul style="list-style-type: none"><li>▼ <input checked="" type="checkbox"/> Standard System<ul style="list-style-type: none"><li>• <input checked="" type="checkbox"/> Standard System</li></ul></li><li>► <input type="checkbox"/> Distributed System</li><li>► <input type="checkbox"/> High-Availability System</li><li>► <input type="checkbox"/> Application Server Java</li><li>► <input type="checkbox"/> Standalone Engines</li></ul></li></ul></li><td><p><b>Description</b></p><p>Installs an SAP NetWeaver 7.4 Support Release 2 ABAP system with all instances except the database instance on one host</p><p>You can also install SAP systems on the same host as the SAP HANA database, without applying additional environment settings when using a <i>SAP System ID (SAPSID)</i> that is different from the <i>Database ID (DBSID)</i> of the SAP HANA database. For more information and prerequisites, see SAP Note 1953429.</p><p><b>SAP System Instances</b></p><p>Mandatory instances of an SAP NetWeaver 7.4 Support Release 2 ABAP system are:</p><ul style="list-style-type: none"><li>• ABAP central services instance (ASCS instance)</li><li>• Database instance</li></ul></td></ul>	<p><b>Description</b></p> <p>Installs an SAP NetWeaver 7.4 Support Release 2 ABAP system with all instances except the database instance on one host</p> <p>You can also install SAP systems on the same host as the SAP HANA database, without applying additional environment settings when using a <i>SAP System ID (SAPSID)</i> that is different from the <i>Database ID (DBSID)</i> of the SAP HANA database. For more information and prerequisites, see SAP Note 1953429.</p> <p><b>SAP System Instances</b></p> <p>Mandatory instances of an SAP NetWeaver 7.4 Support Release 2 ABAP system are:</p> <ul style="list-style-type: none"><li>• ABAP central services instance (ASCS instance)</li><li>• Database instance</li></ul>
<p><b>51050819_1</b></p> <p><input type="checkbox"/> NW 7.4 SR2 Installation Export</p>	<p>ZIP</p> <p>2817307 KB</p> <p>04.10.2016</p> <p>04.10.2016</p>

Please Note that for the fresh Installation of SAP HANA the Installation Package with the correct Labels is necessary.

<b>51052383_1</b>					
<input type="checkbox"/> SAP HANA Platf.Ed.1.0 SPS12 DSP(SAP HANA DB 1.00.122.11) 1/3	EXE	3906250 KB	18.08.2017	18.08.2017	
<b>51052383_2</b>					
<input type="checkbox"/> SAP HANA Platf.Ed.1.0 SPS12 DSP(SAP HANA DB 1.00.122.11) 2/3	RAR	3906250 KB	18.08.2017	18.08.2017	
<b>51052383_3</b>					
<input type="checkbox"/> SAP HANA Platf.Ed.1.0 SPS12 DSP(SAP HANA DB 1.00.122.11) 3/3	RAR	2644635 KB	18.08.2017	18.08.2017	

Current Documentation of the SWPM tool

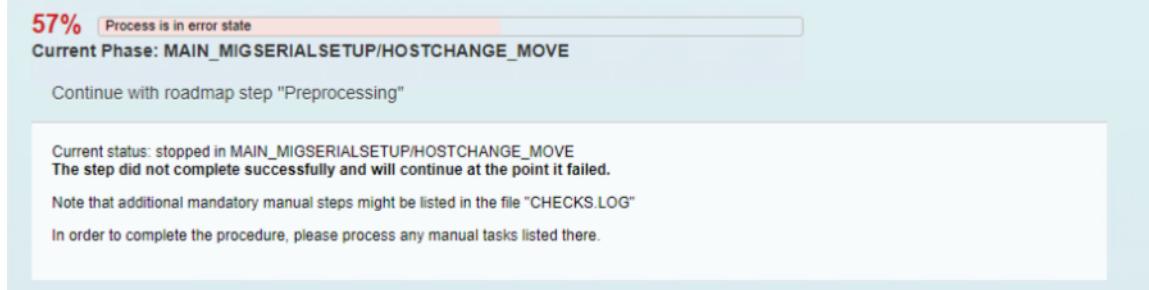
<https://support.sap.com/en/tools/software-logistics-tools.html>

[Installation Guides](#) - Application Server Svstems

## Install the target SAP HANA database

The SWPM tool also installs the target SAP HANA database. If you have trouble during the Installation, provide the correct file directory structure as seen in the following example.

```
server:/hana # dir  
total 0  
lrxwxrwxrwx 1 root root 16 Sep 1 20:02 data -> /sapmnt/BSH/data  
lrxwxrwxrwx 1 root root 15 Sep 1 19:52 log -> /sapmnt/BSH/log  
lrxwxrwxrwx 1 root root 7 Sep 1 18:13 shared -> /sapmnt  
server:/hana #
```



## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

57% Process is in dialog state

Current Phase: MAIN\_MIGSERIALSETUP/HOSTCHANGE\_MOVE

DMO with System Move: Data Transfer

The tool is running on host "saps4hsrv" in phase "MAIN\_MIGSERIALSETUP/HOSTCHANGE\_MOVE".  
The SUM detected a host change and assumes this is now the target host for the DMO with System Move procedure.

Note: If you have chosen the "parallel mode" and continuously synchronize the directories, the procedure on this host will remain active in phases "EU\_CLONE\_MIG\_DT\_IMP" and is ready for the downtime import. The import processes will be started immediately as soon as packages of the synchronized directories are available.

57% Process is in dialog state

Current Phase: MAIN\_MIGSERIALSETUP/HOSTCHANGE\_MOVE

Host Name and Instance Number

Enter the host name of your central instance (primary application server instance) and its instance number:  
SAP SYSTEM HOST: saps4hsrv  
INSTANCE NUMBER: 07

Phase: 102 57% MAIN\_MIGSERIALSETUP/HOSTCHANGE\_MOVE

57% Process is in dialog state

Current Phase: MAIN\_MIGSERIALSETUP/HOSTCHANGE\_MOVE

Profiles of the Central Instance (Primary Application Server Instance)

Enter the file names (without path) of the following profiles:  
INSTANCE PROFILE: BWS\_DVEBMGS07\_saps4hsrv

57% Process is in dialog state

Current Phase: MAIN\_MIGSERIALSETUP/HOSTCHANGE\_MOVE

Profiles of the Central Instance (Primary Application Server Instance)

Enter the file names (without path) of the following profiles:  
INSTANCE PROFILE

57% Process is in dialog state

Current Phase: MAIN\_MIGSERIALSETUP/HOSTCHANGE\_MOVE

Path to SAP Start Procedure, DB SID, and Host

Start Procedure

Enter the path to the SAP start procedure:  
STARTSAP PATH

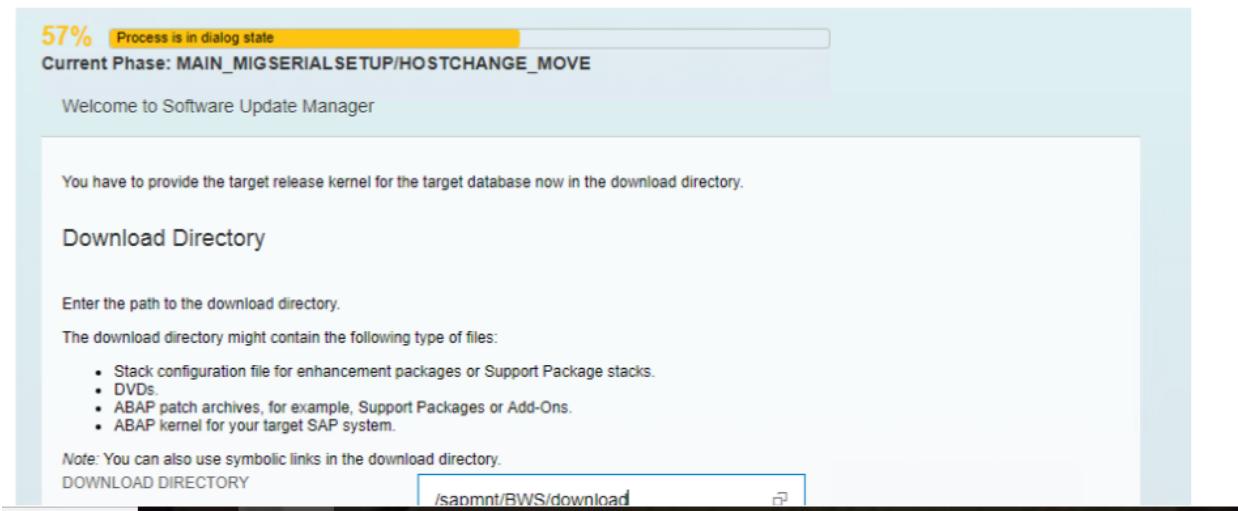
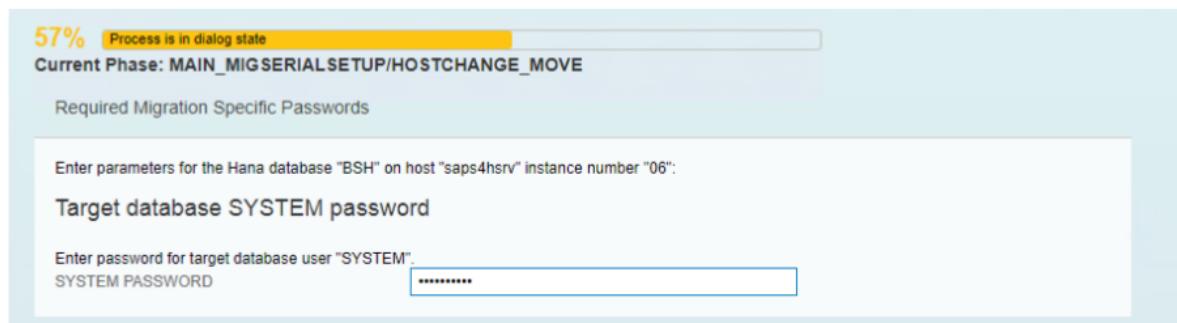
57% Process is in dialog state

Current Phase: MAIN\_MIGSERIALSETUP/HOSTCHANGE\_MOVE

Database Migration Initialization

You are going to migrate your system to a new database.

Enter the following parameters of the target database:



## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

57% Process is in dialog state  
Current Phase: MAIN\_MIGSERIALSETUP/SUBMOD\_MIG\_CONFIG/HDB\_MIGCONFIG

SAP HANA Migration Parameters

SAP HANA AUTOMATIC LOAD OF TABLE PLACEMENT

Do you want to enable the automatic load of table placement statements during the preprocessing of the migration according to

- SAP Note 1908075
- SAP Note 1958346
- SAP Note 1899817

Automatic load of Table Placement Statements

Phase: 104 57% MAIN\_MIGSERIALSETUP/SUBMOD\_MIG\_CONFIG/HDB\_MIGCONFIG

57% Process is in dialog state  
Current Phase: MAIN\_MIGSERIALSETUP/SUBMOD\_MIG\_CONFIG/HDB\_PREPARE

Required Migration Specific Passwords

Enter parameters for the Hana database "BSH" on host "saps4hsrv" instance number "06":

Target database SCHEMA password

Enter the password for the target database user "SAPBWS" (this user will be created)

\*SAPBWS PASSWORD .....

\*Confirmation : SAPBWS PASSWORD .....

Phase: 105 57% MAIN\_MIGSERIALSETUP/SUBMOD\_MIG\_CONFIG/HDB\_PREPARE

57% Process is in running state  
Current Phase: MAIN\_MIGSERIALSETUP/SUBMOD\_MIG\_CONFIG/HDB\_PREPARE

57% Process is in running state  
Current Phase: MAIN\_MIGSERIALSETUP/SUBMOD\_MIG\_CONFIG/HDB\_PREPARE

58% Process is in dialog state  
Current Phase: MAIN\_MIGOPT/WINSRV\_INST\_CRR

Continue with roadmap step "Execution"

Current status: continue with phase MAIN\_BRISETUP/RUN\_RSVBCHK\_BRI\_SETUP  
Previous step finished successfully and the next one will be started.

Note that additional mandatory manual steps might be listed in the file "CHECKS.LOG" (html)  
Identical content, but in TEXT format, can be found in the file "CHECKS.TXT" (plain text)  
It contains entries of type info.

In order to complete the procedure, please process any manual tasks listed there.

Phase: 106 58% MAIN\_MIGOPT/WINSRV\_INST\_CRR - End of Phase Host Change

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

69% Process is in dialog state  
Current Phase: MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_NEW/SUBMOD\_MIG\_SER\_IMP/SUBMOD\_MIG\_SCALEUP\_PREREQ/REQ\_SCALEUP\_PREREQ

Perform Scale Up (Single Node) Prerequisite on SAP HANA if necessary

Action Required (if condition is met):

You decided to NOT run the SAP HANA Landscape Reorganization. However, if you run an SAP HANA Single-Node system with scale-up, you must manually import a file with specific SQL-information to enable the optimal table partition.

Carry out the following procedure:

1. Download the appropriate file that is in the attachment of the following SAP Notes:
  - For SAP Business Warehouse on SAP HANA, see [SAP Note 1908075](#). From the attachment TABLE\_PLACEMENT.zip, select the suitable SQL-file.
  - For SAP Business Suite on SAP HANA or SAP S/4HANA, see [SAP Note 1899817](#). Choose the attachment: TABLE\_PLACEMENT\_ERP\_\* or TABLE\_PLACEMENT\_S4H\_\* according to the version and SP level of the target system.
2. Edit the downloaded file by replacing all occurrences of \$\$PLACEHOLDER with your SAP<sid>.
3. Import the edited files to SAP HANA using one of the following commands on OS level of the managed system:  
`/usr/sap/BWS/hdbclient/hdbsql -U SUPER -I <filename> -E 1`
4. After the import, continue with the migration procedure.

Phase: 107 69% MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_NEW/SUBMOD\_MIG\_SER\_IMP/  
SUBMOD\_MIG\_SCALEUP\_PREREQ/REQ\_SCALEUP\_PREREQ

```
./hdbsql -U SUPER -I HdbTablePlacementParameters_BWS.SQL -E 1
```

69% Process is in running state  
Current Phase: MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_NEW/SUBMOD\_MIG\_SER\_IMP/EU\_CLONE\_MIG\_DT\_CREATE\_RUN

69% Process is in error state  
Current Phase: MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_NEW/SUBMOD\_MIG\_SER\_IMP/EU\_CLONE\_MIG\_UT\_IMP

Repeat Phase

Severe error(s) occurred in phase MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_NEW/SUBMOD\_MIG\_SER\_IMP/EU\_CLONE\_MIG\_UT\_IMP

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

```
Severe error(s) occurred in phase MAIN_SWITCH/SUBMOD_MIG_SWITCH_NEW/SUBMOD_MIG_SER_IMP/EU_CLONE_MIG_UT_IMP  
Last error code set:  
Syntax error in  
'/sapmnt/BWS/SUM/abap/migrate_ut/MIGRATE_UT_00001_DONTT_CONV_UC_EXP.CMD' line  
'dat: ."\' bs=1k fs=2047M'  
Cannot read 1.2 'MIGRATE_UT.BUC'
```

### Trouble Ticket Generation

A trouble ticket and an archive with all relevant log files have been generated.  
Trouble ticket: "/sapmnt/BWS/SUM/abap/log/SAPup\_troubleticket.log"  
Log archive: "/sapmnt/BWS/SUM/abap/log/SAPup\_troubleticket\_logs.sar"  
 Repeat phase MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_NEW/SUBMOD\_MIG\_SER\_IMP/EU\_CLONE\_MIG\_UT\_IMP to continue at the point it sto...  
Initialize phase MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_NEW/SUBMOD\_MIG\_SER\_IMP/EU\_CLONE\_MIG\_UT\_IMP to res...  
 INIT

70%

Process is in running state

Current Phase: MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_NEW/SUBMOD\_MIG\_SER\_IMP/EU\_CLONE\_MIG\_UT\_IMP

Phase: 108 70% MAIN\_SWITCH/SUBMOD\_MIG\_SWITCH\_NEW/SUBMOD\_MIG\_SER\_IMP/  
EU\_CLONE\_MIG\_UT\_IMP

## Details of the export/import process

[Note 1904239 - SUM options to change parameters entered in INITPUT and INITSUBST phases](#)

[Phases behind DMO R3load parallel export/import during UPTIME and DOWNTIME to target HANA DB](#)

During the main phases for the uptime and downtime migration there are several directories created which you can link to the following phases:

 migrate_dt	10.03.2015 19:22	File folder
 migrate_dt_crc	10.03.2015 19:22	File folder
 migrate_dt_create	10.03.2015 19:25	File folder
 migrate_ut	10.03.2015 19:49	File folder
 migrate_ut_crc	10.03.2015 19:57	File folder
 migrate_ut_create	10.03.2015 19:23	File folder

The following Phases

EU\_CLONE\_UP\_PRP ➔ creates the directory **migrate\_ut\_create** "R3ldctl" phase

EU\_CLONE\_UP\_RUN ➔ creates the directory **migrate\_ut** "R3load" phase

EU\_CLONE\_DT\_PRP ➔ creates the directory **migrate\_dt\_create** "R3ldctl" phase

EU\_CLONE\_DT\_RUN ➔ creates the directory **migrate\_dt** "R3load" phase

If you want to optimize the different phases, it is not possible with a Breakpoint to stop between this phases. There will be additional files created during the first complete DMO run called

**MIGRATION\_UT\_DUR.XML\*** for details of the uptime migration

**MIGRATION\_DT\_DUR.XML\*** for details of the downtime migration

\* From SUM/DMO 1.0 SP13 the extension of the files changed from **.LST** to **.XML**

If you want to optimize the different phases, it is not possible with a Breakpoint to stop between this phases. There will be additional files created during the first complete DMO run called **MIGRATION\_UT\_DUR.XML\*** for details of the uptime migration

**MIGRATION\_DT\_DUR.XML\*** for details of the downtime migration \* From SUM/DMO 1.0 SP13 the extension of the files changed from **.LST** to **.XML**

You can specify this file within SAPup\_add.par as follows (you must create them beforehand), and reference both files, separated with a comma: /clonepar/clonedurations =  
/usr/sap/<SID>/SUM/abap/htdoc/MIGRATE\_UT\_DUR.<ext>,  
/usr/sap/<SID>/SUM/abap/htdoc/MIGRATE\_DT\_DUR.<ext>

## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

Both files are in the /usr/sap/<SID>/SUM/abap/htdocs directory and allow to keep your own settings in separate files while you can exchange the existing files by a newer SAR file of the same SUM Support Package. The command SAPUp set procpar gt=scroll allows you from SUM 1.0 SP10 onwards dynamically change the main load parameters during the phase for optimization. To completely initialize the uptime/downtime migration process you have to remove all the mentioned directories. This will restart the migration process from the beginning. If you encounter problems with tables/views/match codes/cluster tables you don't want to consider during the migration use the file

/usr/sap/<SID>/SUM/abap/bin/EUCLONEDEFS\_ADD.LST/XML (create the file if it is not available) and specify a custom procedure for these objects, e.g. Table name Option TABLE nocontent/noclone/ignlargercount/igncount/rowstore/columnstore TABLE split segmentsize/splitindex=<indname>/splitfields=<

fld>,<fld>,

### Result from the parallel export/import process

EUMIGRA | EU | RUN.LOG

```
|1 ETQ201 Entering upgrade-phase "MAIN_SHDIMP/SUBMOD_MIG_UPTIME_RUN/EU_CLONE_MIG_UT_RUN" ("20150712100003")
2 ETQ367 Connect variables are set for standard instance access
4 ETQ399 System-nr = '01', GwService = 'sapgw01' Client = '000'
4 ETQ399 Environment variables:
4 ETQ399  dbms_schema=cih
1 ETQ206 Executing pre-phase DB specific actions.
1 ETQ200 Executing actual phase 'MAIN_SHDIMP/SUBMOD_MIG_UPTIME_RUN/EU_CLONE_MIG_UT_RUN'.
1 ETQ399 Phase arguments:
2 ETQ399 Arg[0] = 'EUCLONEDEFS.LST'
2 ETQ399 Arg[1] = 'MIGRATE_UPTIME'
2 ETQ399 Arg[2] = 'migrate_ut'
2 ETQ399 Arg[3] = 'RUN_ONLY;DEST_NOCREATE;DESTSECONDDB;CHECKCOUNTS'
1 ETQ399 Using error summary log 'EUMIGRATEUTRUN.ELG'.
1 ETQ399 Getting all tables/views supposed to be cloned.
1 ETQ399 Enabling table declustering flag.
4 ETQ399 Mapping SCR class 'MIGRATE_UPTIME' to actual condition.
3 ETQ399 Selecting from 'PUTTB_SHD' with condition '( ( CLONE == "U" and ( SRCTYPE == "J" or SRCTYPE == "T" or SRCTYPE == '4 ETQ399 4883 entries matched.
3 ETQ399 ===== 2015/07/12 10:35:58, Progress 12571 MB/12583 MB (99.91%) =====
3 ETQ123 20150712103558 (1): PID 27252 exited with status 0 (time 0.000 real)
3 ETQ399 ===== 2015/07/12 10:35:58, Progress 12573 MB/12583 MB (99.92%) =====
3 ETQ123 20150712103600 (0): PID 27808 exited with status 0 (time 0.000 real)
3 ETQ399 ===== 2015/07/12 10:36:00, Progress 12583 MB/12583 MB (100.00%) =====
1 ETQ000 =====
4 ETQ010 Date & Time: 20150712103601
2 ETQ102 Finished execution of 47 process(es).
2 ETQ108 Analyzing logs for errors.
1 ETQ124 Scanned file 'migrate_ut\ MIGRATE_UT_CNT_00023_IMP.LOG' from offset 114 to 298 for errors.
1 ETQ124 Scanned file 'migrate_ut\ MIGRATE_UT_CNT_00024_EXP.LOG' from offset 114 to 296 for errors.
1 ETQ124 Scanned file 'migrate_ut\ MIGRATE_UT_CNT_00024_IMP.LOG' from offset 114 to 296 for errors.
3 ETQ114 Analyzed 47 log files.
1 ETQ399 Finished execution of buckets with rc = 0.
1 ETQ000 =====
4 ETQ010 Date & Time: 20150712103604
3 ETQ399 Checking counters/checksums from 'MIGRATE_UT_CNT.BUC'.
3 ETQ399 Skipped 8 export-only counts (declustered tables and tables without content transfer).
1 ETQ207 Executing post-phase DB specific actions.
4 ETQ010 Date & Time: 20150712103604
-----
```

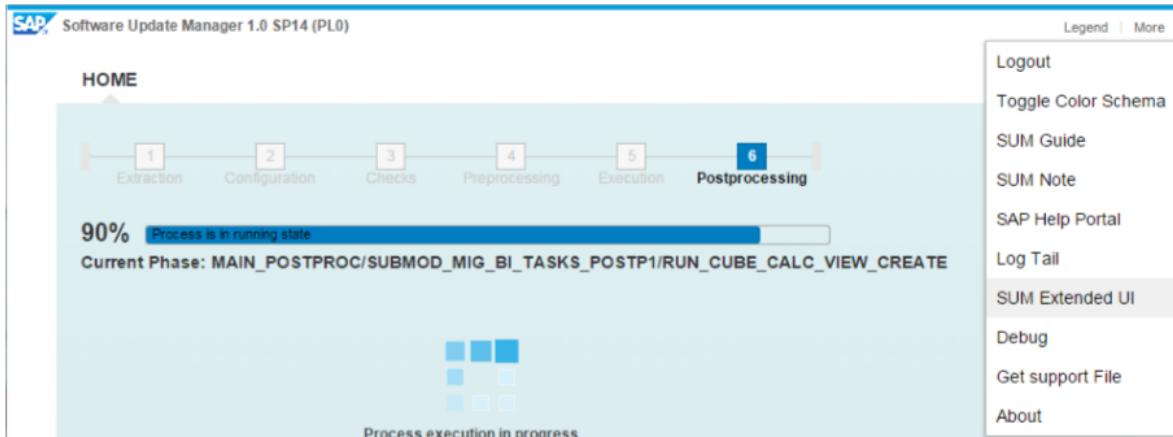
## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

### EUMIGRATEDTRUN.LOG

```
1 ETQ201 Entering upgrade-phase "MAIN_SWITCH/SUBMOD_MIG_SWITCH_ORG/SUBMOD_MIG_DOWNTIME_RUN/EU_CLONE_MIG_DT_RUN" ("2015071311
2 ETQ367 Connect variables are set for standard instance access
4 ETQ399 System-nr = '01', GwService = 'sapgw01' Client = '000'
4 ETQ399 Environment variables:
4 ETQ399   dbs_mss_schemas=cih
1 ETQ206 Executing pre-phase DB specific actions.
1 ETQ200 Executing actual phase 'MAIN_SWITCH/SUBMOD_MIG_SWITCH_ORG/SUBMOD_MIG_DOWNTIME_RUN/EU_CLONE_MIG_DT_RUN'.
1 ETQ399 Phase arguments:
2 ETQ399 Arg[0] = 'EUCLONEDEFS.LST'
2 ETQ399 Arg[1] = 'MIGRATE_DOWNTIME_NOMIGTRIG'
2 ETQ399 Arg[2] = 'migrate_dt'
2 ETQ399 Arg[3] = 'RUN_ONLY;DEST_NOCREATE;DESTSECONDDB;SEL4DOWNTIME;CHECKCOUNTS;INDEXSUPPRESSIONS;OPTIMIZE_CLONING'
1 ETQ399 Using error summary log 'EUMIGRATEDTRUN.ELG'.
1 ETQ399 Getting all tables/views supposed to be cloned.
1 ETQ399 Enabling table declustering flag.
4 ETQ399 Mapping SCR class 'MIGRATE_DOWNTIME_NOMIGTRIG' to actual condition.
3 ETQ399 Selecting from 'PUTTB_SHD' with condition '( ( CLONE == "D" or CLONE == "C" or CLONE == "G" or CLONE == "T" or CL
3 ETQ399 62570 entries matched.
2 ETQ399 Read 10 entries from 'D:\usr\sap\CIH\SUM\abap\bin\EUCLONEDEFS.LST'.
4 ETQ399 Remove /BIC/AZSPOB10300
4 ETQ399                               from clone list.
3 ETQ123 20150713120739 (0): PID 27216 exited with status 0 (time 0.000 real)
3 ETQ399 ===== 2015/07/13 12:07:39, Progress 33398 MB/33398 MB (100.00%) =====
1 ETQ000 =====
4 ETQ010 Date & Time: 20150713120739
2 ETQ102 Finished execution of 330 process(es).
2 ETQ108 Analyzing logs for errors.
3 ETQ114 Analyzed 330 log files.
1 ETQ399 Finished execution of buckets with rc = 0.
1 ETQ000 =====
4 ETQ010 Date & Time: 20150713120748
3 ETQ399 Checking counters/checksums from 'MIGRATE_DT_CNT.BUC'.
3 ETQ399 Skipped 335 export-only counts (declustered tables and tables without content transfer).
4 ETQ399 Starting dialog 'MigOptimizeCloning' at 20150713120751.
4 ETQ399 Dialog finished at 20150713145653.
1 ETQ207 Executing post-phase DB specific actions.
4 ETQ201 Date & Time: 20150713145653
1 ETQ202 Upgrade phase "EU_CLONE_MIG_DT_RUN" completed successfully ("20150713145653")
```

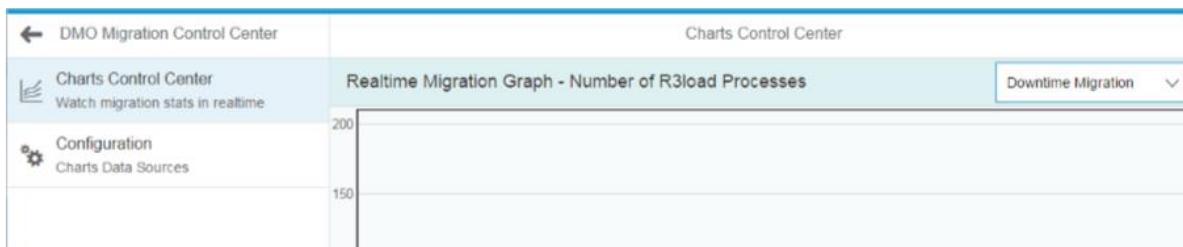
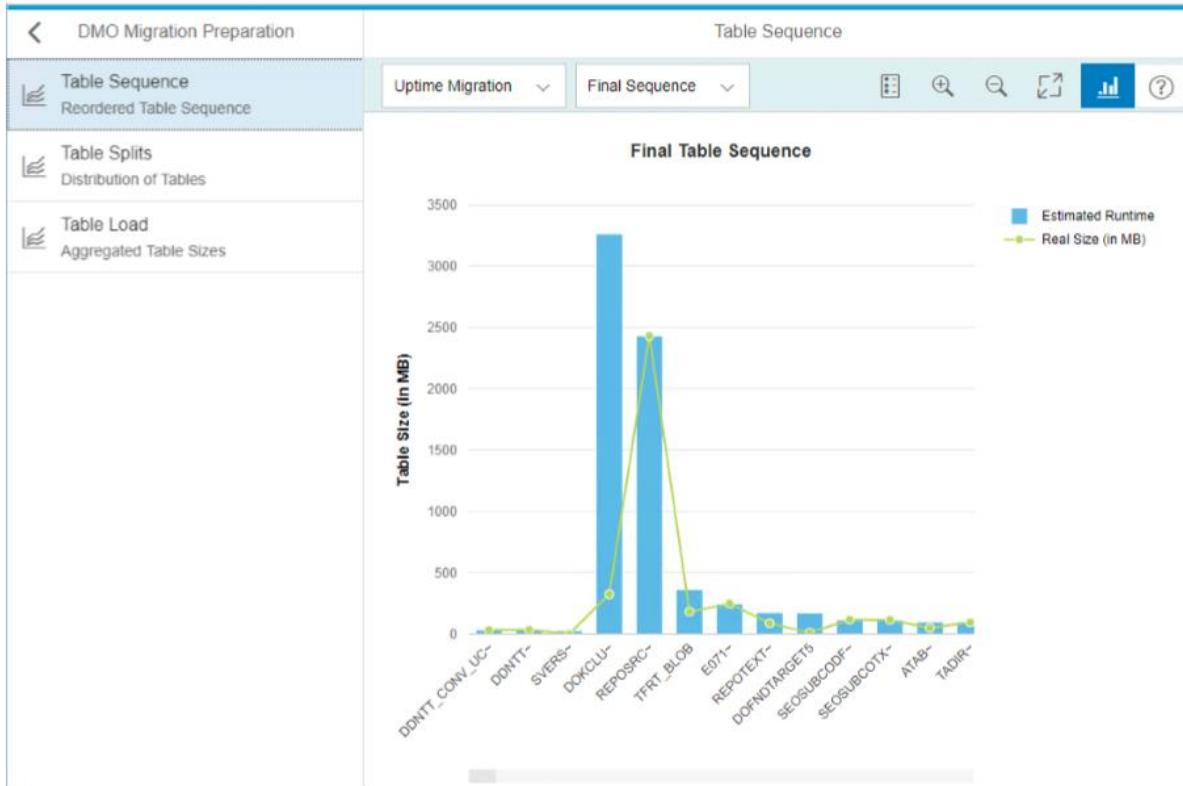
## SUM ABAP Extended SL UI (with SP14 onwards)

You can access the area either via the Menu out of the SL UI GUI or via the URL  
Error! Hyperlink reference not valid.

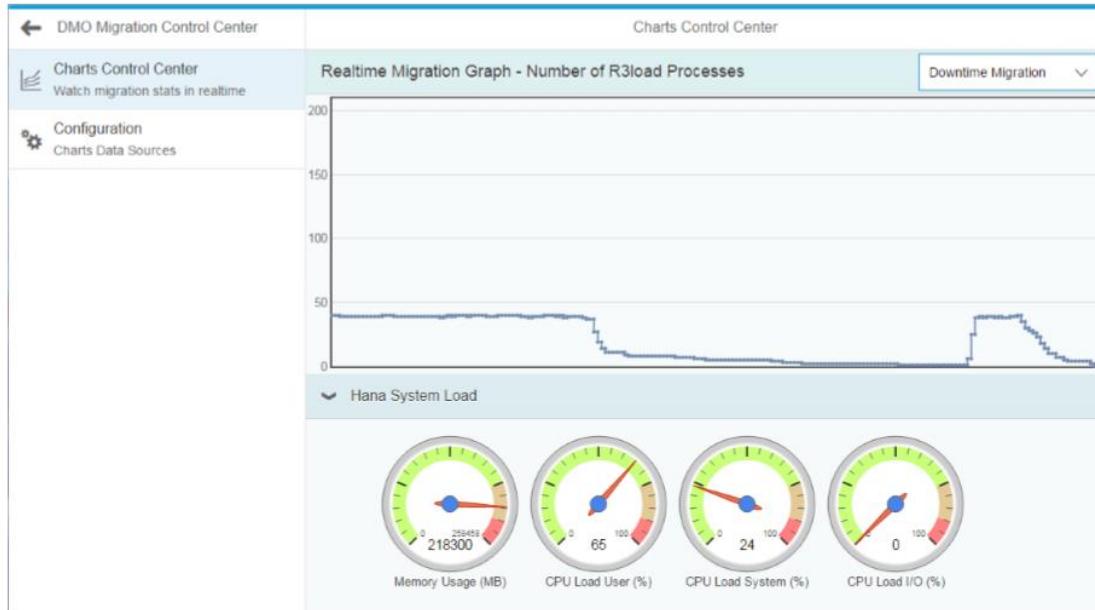


Navigation	Software Update Manager Extended UI
▶ SUM Parameters	<b>Welcome</b>
▷ SUM Phaselist	SUM ABAP Extended SL UI
▷ SUM Analysis	Bringing full throttle to your maintenance procedures.
▷ DMO Migration Control Center	Awesomell
▷ DMO Migration Charts	<b>Technology</b> Pure SAPUI5 and jQuery Magic

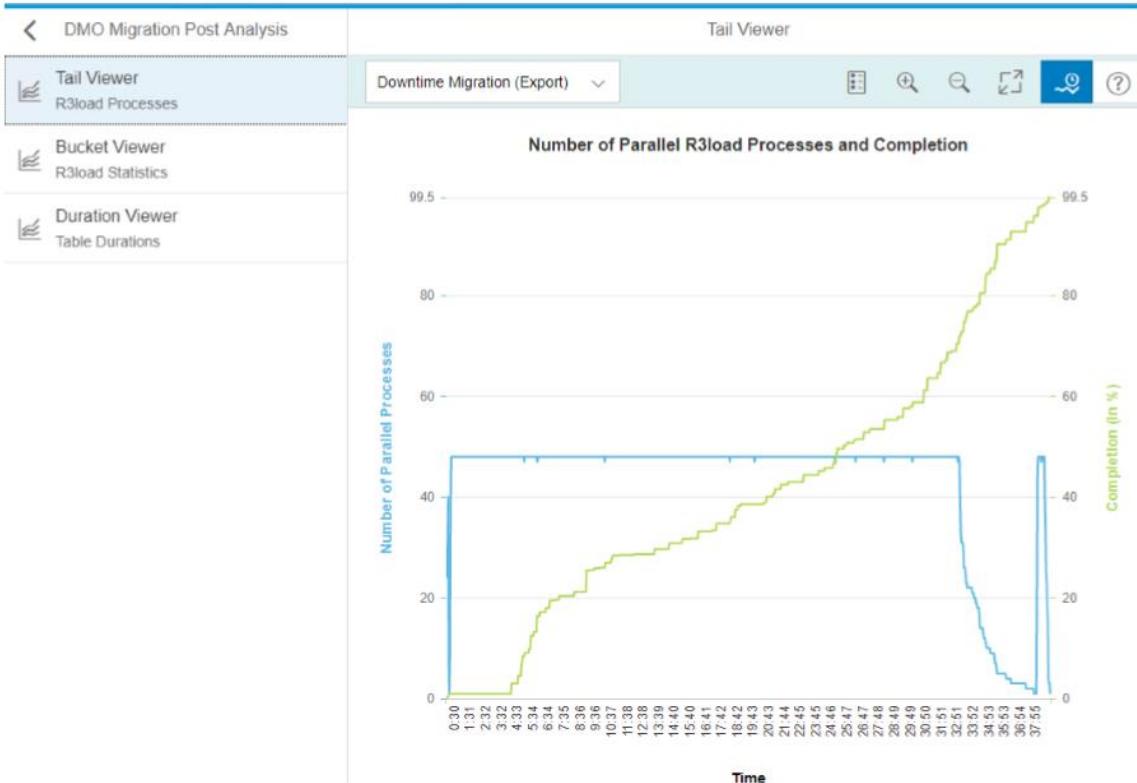
## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



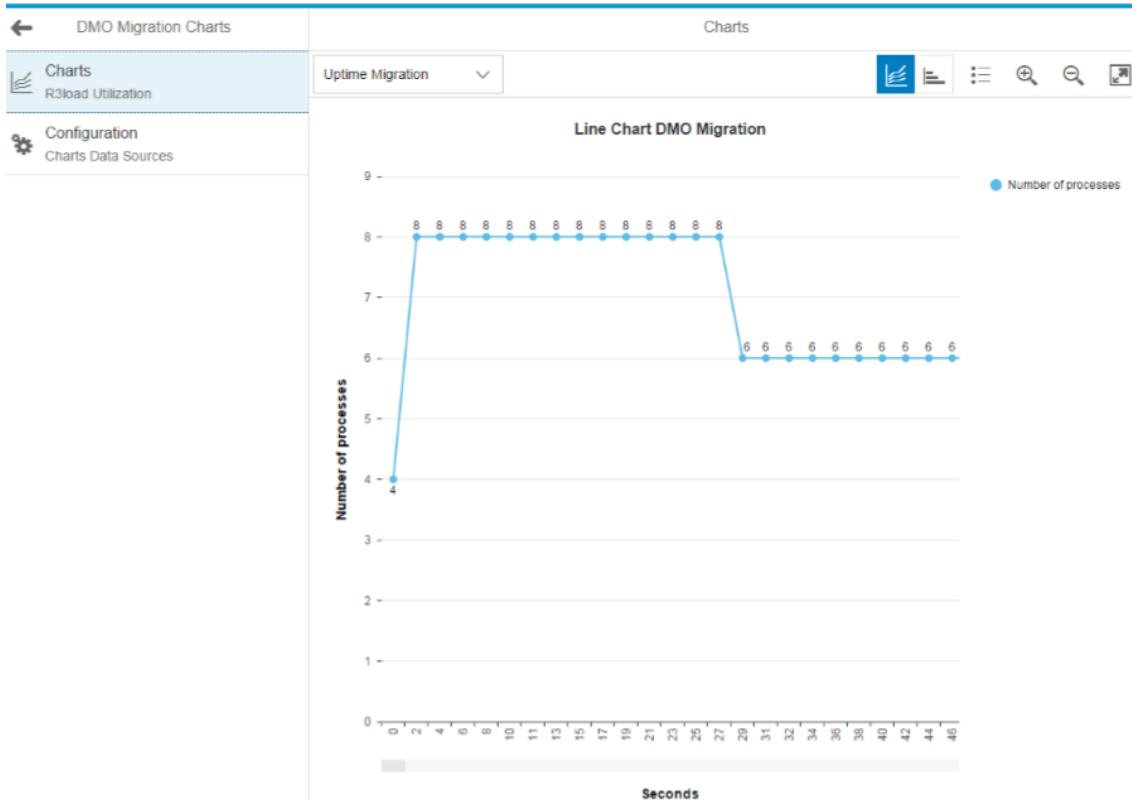
## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



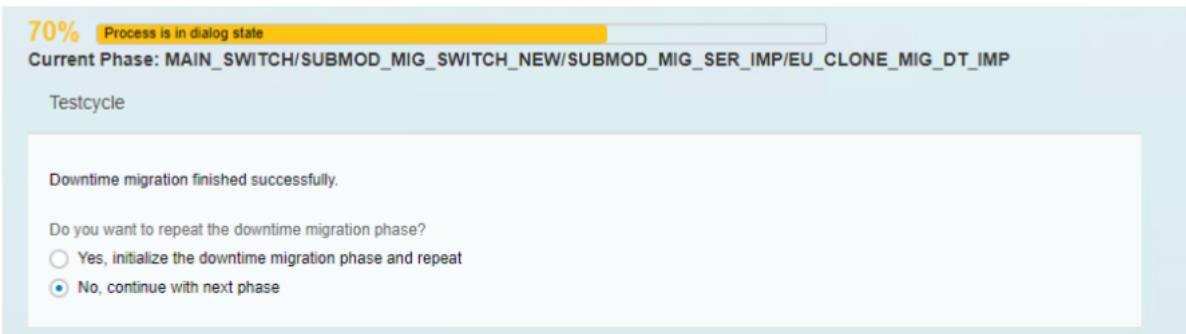
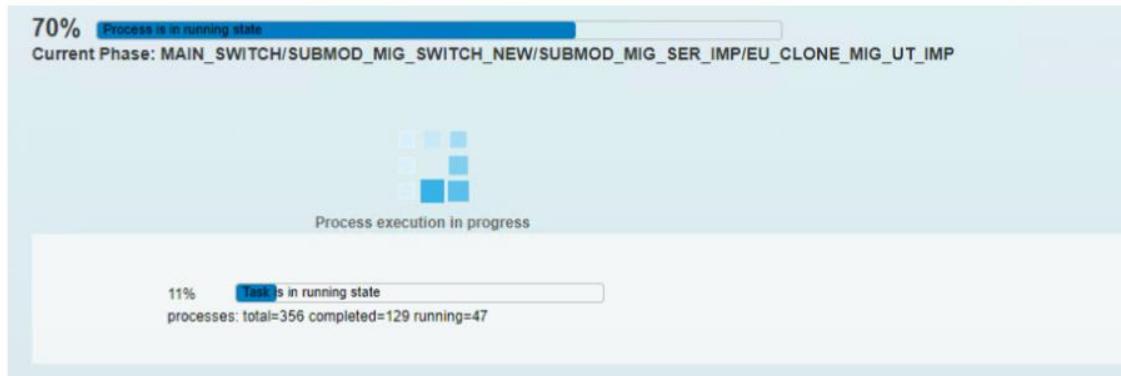
## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



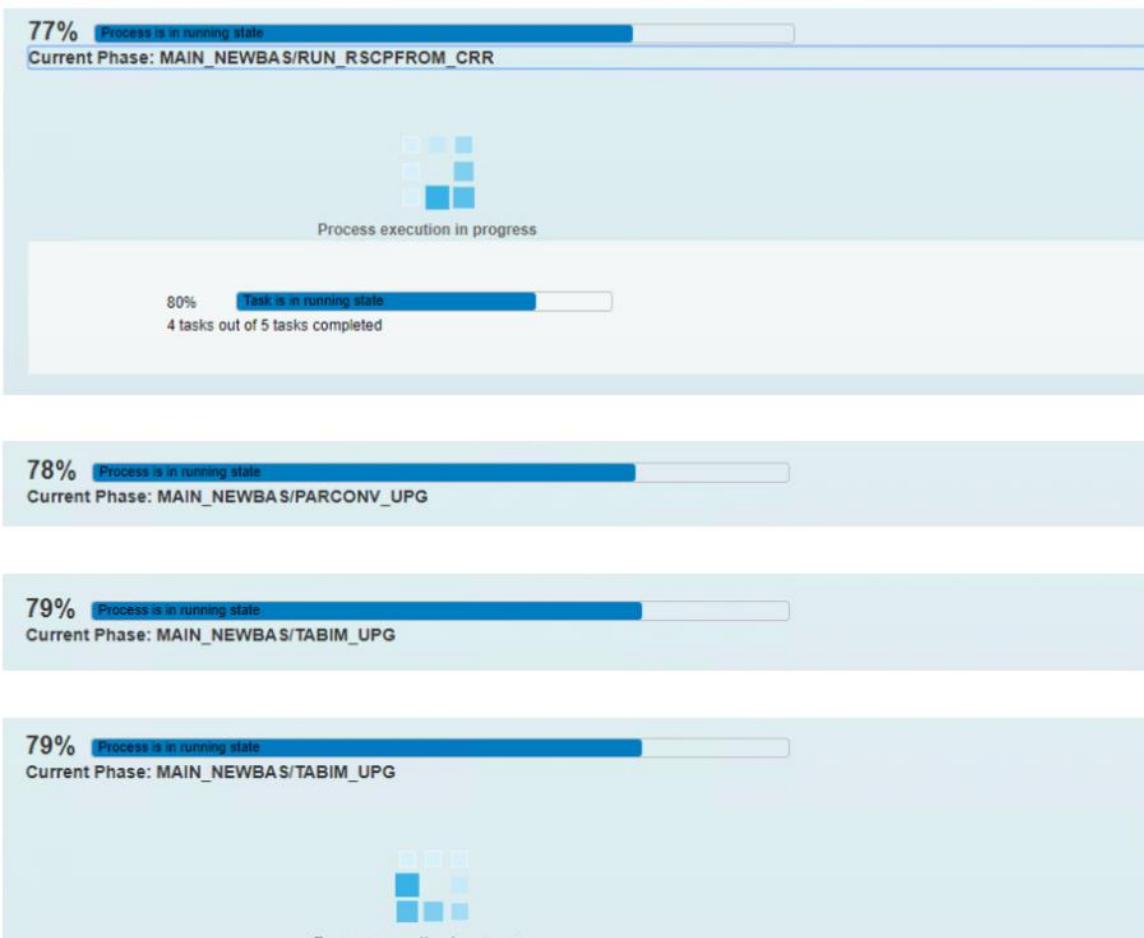
## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather

80% Process is in error state

Current Phase: MAIN\_NEWBAS/XPRAS\_AIMMRG

Repeat Phase

Checks after phase MAIN\_NEWBAS/XPRAS\_AIMMRG were negative!

Last error code set:  
Detected 3 aborted activities in 'XPRASUPG.ELG'  
Calling '/usr/sap/BW5/DVEBMGS07/exe/tp' failed with return code 222, check  
/sapmnt/BW5/SUM/abap/log/SAPup\_NEW.ECO for details

ERROR:  
Detected the following errors:

```
# /sapmnt/BW5/SUM/abap/log/SAPR740XPR90000096.BWS:  
2 EPU126XPost-import methods for change/transport request: "SAPK740XPR90000096"  
4 EPU111 on the application server: "saps4hsrv"  
2 EPU122XPost-import method "FINB_TR_AFTER_IMP_METHOD" started for "FINB_LOCAL_CONTENT" "T", date and time:  
"20170904155141"  
A2 EFINB_TR 096 Postprocessing of client cascade was skipped for client "000"  
A2 EFINB_TR 097 Transport tool FINBASIS: Client cascade for client "100" started  
A2EEFINB_TR 042 RFC error with destination "BW5CLNT100" -> see long text"Error when opening an RFC connection (CPIC-  
CALL:'''Th5APOCMINIT', communication rc: CM_RESOURCE_FAIL"  
A2EEFINB_TR 032 No suitable RFC destination could be found"100"  
A2 EFINB_TR 098 Transport tool FINBASIS: Client cascade for client "100" finished  
2EPU133 Errors occurred during post-handling "FINB_TR_AFTER_IMP_METHOD" for "FINB_LOCAL_CONTENT" "T"  
3 EPU135 "FINB_TR_AFTER_IMP_METHOD" belongs to package "FINB_TRANSPORT_TOOL"  
2EPU136 The errors affect the following components:  
2EPU137 "FIN-FB" ("Financials Basis")  
# /sapmnt/BW5/SUM/abap/log/SAPR740XPR90000045.BWS:  
1 ETP109 version and release : "380.69.55" "749"  
...skipped 6 more lines.  
Please see XPRASUPG.html for more information.
```

### Trouble Ticket Generation

A trouble ticket and an archive with all relevant log files have been generated.  
Trouble ticket: "/sapmnt/BWS/SUM/abap/log/SAPUp\_troubleticket.log"  
Log archive: "/sapmnt/BWS/SUM/abap/log/SAPUp\_troubleticket\_logs.sar"  
 Repeat phase MAIN\_NEWBAS/XPRAS\_AIMMRG to continue at the point it stopped  
Initialize phase MAIN\_NEWBAS/XPRAS\_AIMMRG to restart it from the beginning  
 INIT  
Accept errors and repeat phase MAIN\_NEWBAS/XPRAS\_AIMMRG  
 ACCEPT

[Note 912369 - FINB\\_TR\\_DEST, after import failures, transport errors](#)

[Note 1564964 - Source system XYZ does not exist](#)

Category	ABAP Programming Error
Runtime Errors	SAPSQL_PARSE_ERROR
Except.	CX_SY_DYNAMIC_OSQL_SEMANTICS
ABAP Program	SAPLRSDO
Application Component	BW-WHM-MTD
Date and Time	05.09.2017 10:55:33

[Note 1962421 - EHP Upgrade failed, issues with InfoObject ORTYPE2](#)

89% Process is in dialog state

Current Phase: MAIN\_UPTRANS/STARTSAP\_PUPG

**Backup Request**

Make a full backup of your database.

Actions completed

Note: The database log mode should be enabled now. Make a full backup of your database after archiving is enabled again.

89% Process is in error state

Current Phase: MAIN\_UPTRANS/STARTSAP\_PUPG

[Repeat Phase](#)

Checks after phase MAIN\_UPTRANS/STARTSAP\_PUPG were negative!

Last error code set: Process D:\usr\sap\CIH\DVEMG501\exe\sapcontrol.exe exited with 2, see 'D:\usr\sap\CIH\SUM\abap\System start failed' Earlier, validating the profile failed, see INSTANCE.OUT

**Trouble Ticket Generation**

A trouble ticket and an archive with all relevant log files have been generated.  
Trouble ticket: "D:\usr\sap\CIH\SUM\abap\log\SAPup\_troubleticket.log"  
Log archive: "D:\usr\sap\CIH\SUM\abap\log\SAPup\_troubleticket\_logs.sar"

Repeat phase MAIN\_UPTRANS/STARTSAP\_PUPG to continue at the point it stopped

Initialize phase MAIN\_UPTRANS/STARTSAP\_PUPG to restart it from the beginning

INIT

Phase: 113 89% MAIN\_UPTRANS/STARTSAP\_PUPG

If there is a failure in the start of the new Application Server Instance check the memory settings, as the new SAP Kernel might have other memory recommendations, or simply start the SAP Instance manually.

90% Process is in running state

Current Phase: MAIN\_UPTRANS/STARTSAP\_PUPG

90% Process is in dialog state

Current Phase: MAIN\_UPTRANS/UPCONF

End of Downtime

The downtime has finished. The system has been unlocked and is available for post-processing activities.  
Please check if manual start or installation activities for secondary application servers need to be performed.

Phase: 114 89% MAIN\_UPTRANS/UPCONF - end of downtime

90% Process is in dialog state

SUM ABAP process started

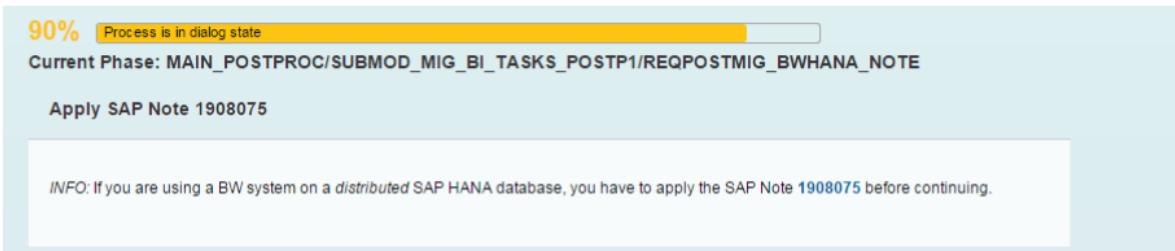
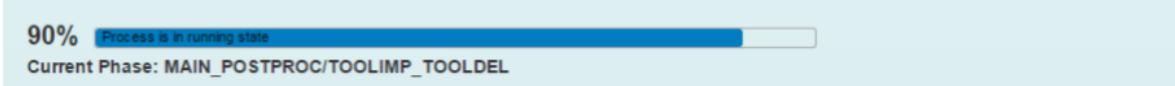
[Continue with roadmap step "Postprocessing"](#)

Current status: continue with phase MAIN\_POSTPROC/SETUPGPAR\_UPG\_POST  
Previous step finished successfully and the next one will be started.

Please be advised that additional mandatory manual steps might be listed in the file "CHECKS.LOG"  
In order to complete the procedure, please process any manual tasks listed there.

DI 115 0000 MAIN\_UPTRANS/MAIN\_D00TD END /D

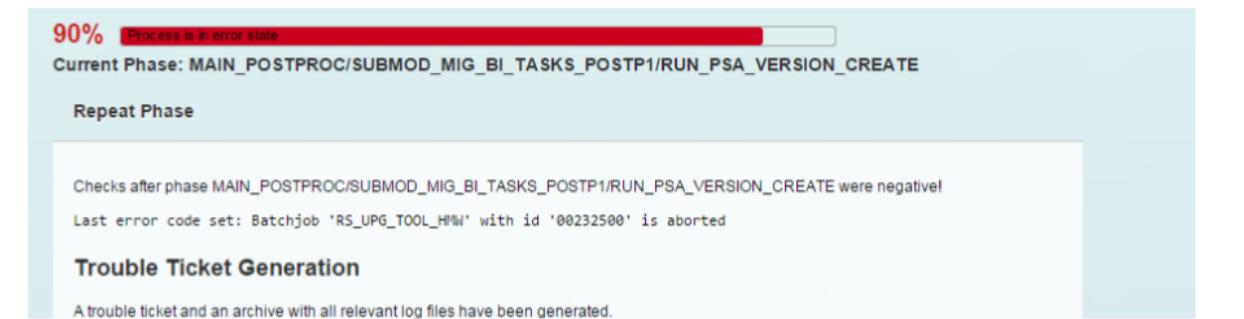
## Phase Postprocessing (6)



Phase: 116 90% MAIN\_POSTPROC/SUBMOD\_MIG BI\_TASKS\_POSTP1/REQPOSTMIG\_BWHANA\_NOTE

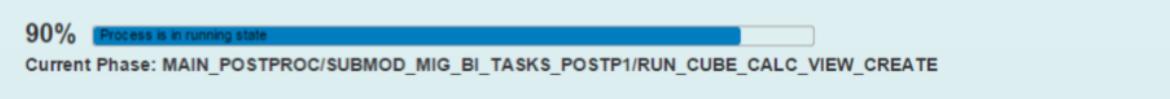
[Note 1908075 - BW on SAP HANA SP6: Landscape redistribution](#) (at least Rev. ≥ 60 for HANA needed)

[Note 2334091 - BW/4HANA: Table Placement and Landscape Redistribution](#)



This error indicates access or similar problems with inactive source systems connected to BW.

[Note 2182306 - 730SP14: PSA Version create step in DMO tool hangs](#)



Phase: 118 90% MAIN\_POSTPROC/SUBMOD\_MIG BI\_TASKS\_POSTP1/  
RUN\_CUBE\_CALC\_VIEW\_CREATE

**91%** Process is in error state

Current Phase: MAIN\_POSTPROC/SUBMOD\_MIG\_BI\_TASKS\_POSTP1/RUN\_CUBE\_CALC\_VIEW\_CREATE

Repeat Phase

Checks after phase MAIN\_POSTPROC/SUBMOD\_MIG\_BI\_TASKS\_POSTP1/RUN\_CUBE\_CALC\_VIEW\_CREATE were negative!

Last error code set:  
Single errors (code <= 8) found in logfile 'PHASES\_NEW.ELG'

ERROR:  
Batchjob RS\_UPG\_TOOL\_HMW failed.  
Detected the following errors:

```
# /sapmnt/BWS/SUM/abap/log/RSUPG_CUBE_CALC_VIEW_CREATE.BWS:
A3 ERSDD_HDB_INDEX 008 Column view activated for object "0REF_DOC_IT"
A3 ERSDD_HDB_INDEX 007 Creating column view of type "MDF" for object "0RSPL_CNTER"...
A3 ERSDD_HDB_INDEX 008 Column view activated for object "0RSPL_CNTER"
A3 ERSDD_HDB_INDEX 007 Creating column view of type "MDF" for object "0RSTT_CELLY"...
A3 ERSDD_HDB_INDEX 008 Column view activated for object "0RSTT_CELLY"
3EER7245 InfoObject "0RSTT_TID" does not exist in version "A"
A3EERS_EXCEPTION 111 Object "0RSTT_CVERS" " " not found

...skipped 67 more lines.
```

Please see [PHASES\\_NEW.html](#) for more information.

**Trouble Ticket Generation**

A trouble ticket and an archive with all relevant log files have been generated.  
Trouble ticket: "/sapmnt/BWS/SUM/abap/log/SAPup\_troubleshoot.log"  
Log archive: "/sapmnt/BWS/SUM/abap/log/SAPup\_troubleshoot\_logs.sar"

Repeat phase MAIN\_POSTPROC/SUBMOD\_MIG\_BI\_TASKS\_POSTP1/RUN\_CUBE\_CALC\_VIEW\_CREATE to continue at the point it stopped  
 Ignore phase errors and proceed to next phase

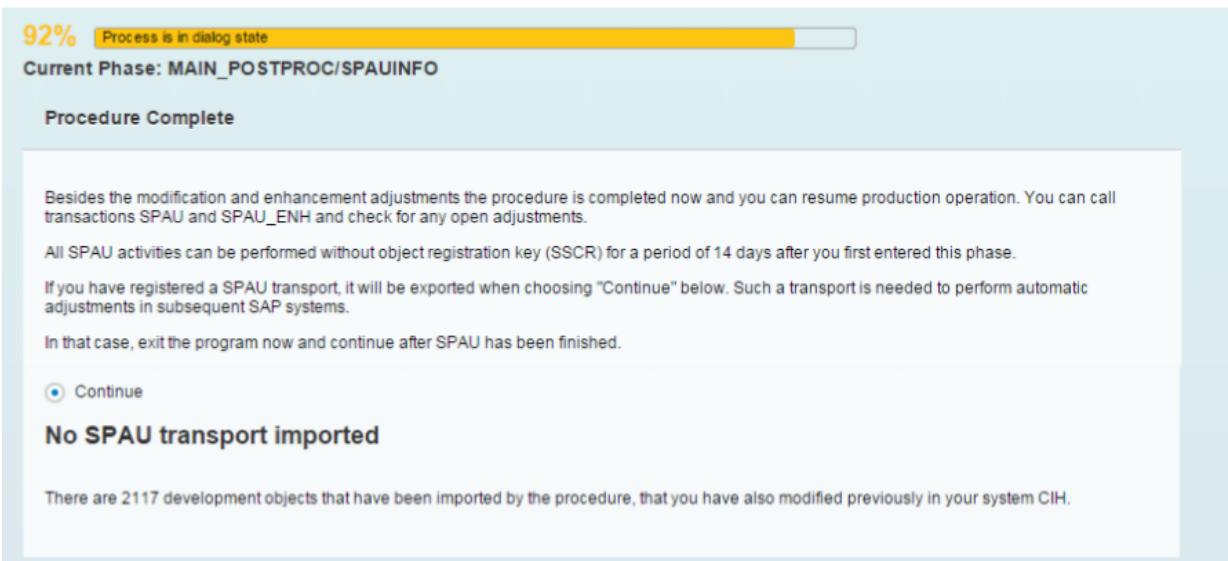
Initialize phase MAIN\_POSTPROC/SUBMOD\_MIG\_BI\_TASKS\_POSTP1/RUN\_CUBE\_CALC\_VIEW\_CREATE to restart it f...

INIT

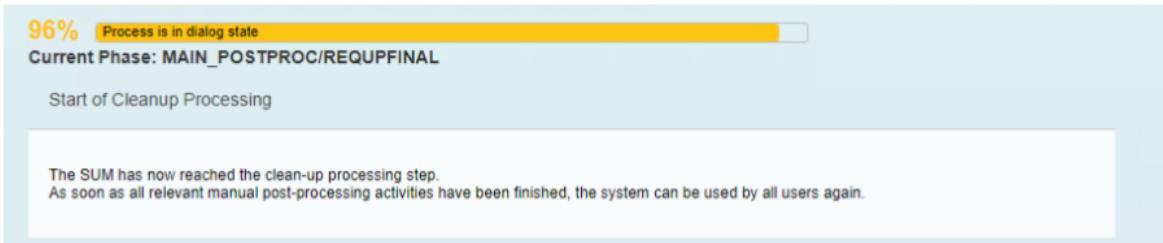
Phase: 119 91% MAIN\_POSTPROC/SUBMOD\_MIG\_BI\_TASKS\_POSTP1/  
RUN\_CUBE\_CALC\_VIEW\_CREATE



Phase: 121 91% MAIN\_POSTPROC/SUBMOD\_MIG BI\_TASKS\_POSTP1/  
RUN\_DBDIFF\_ENTRIES\_CREATE - BIA related



## SAP Hana Migration Steps with the Database Migration option (DMO) by Irshad Rather



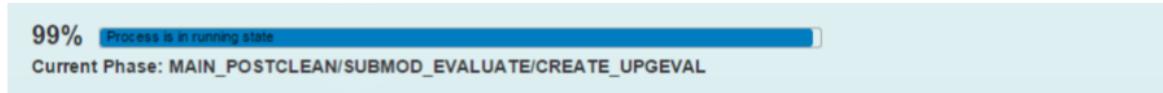
Phase: 124 96% MAIN\_POSTPROC/REQUPFINAL



Phase: 125 99% MAIN\_POSTCLEAN/RUN\_DMO\_DEPOOLING\_CHECK



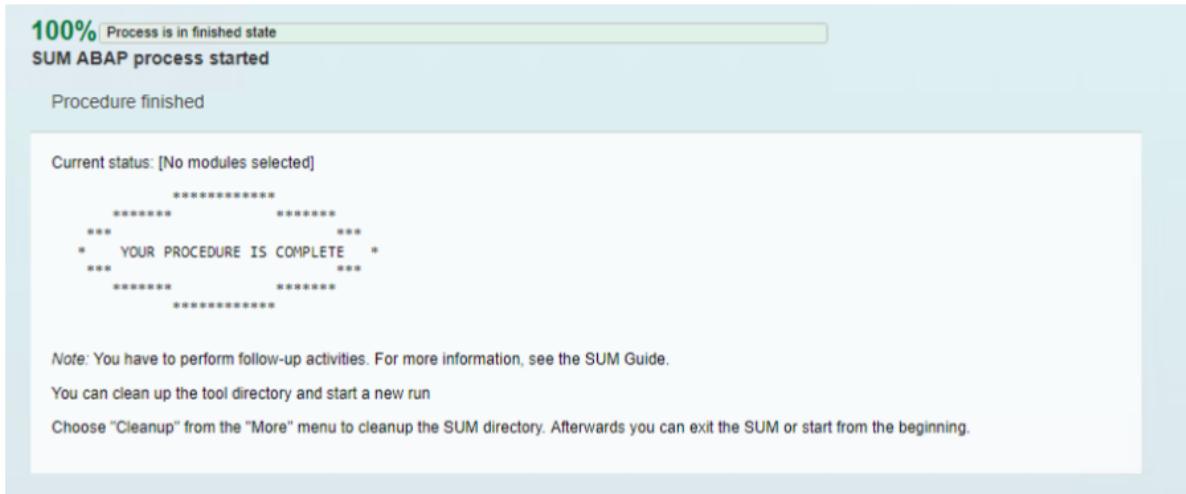
Phase: 126 99% MAIN\_POSTCLEAN/TOOLIMP\_DELETE\_ZDM\_CRR



Phase: 127 99% MAIN\_POSTCLEAN/SUBMOD\_EVALUATE/CREATE\_UPGEVAL



Phase: 128 99% MAIN\_POSTP/SAVELOGS



Phase: 129 100% YOUR UPGRADE IS COMPLETE - END (6)

## 3.4 Software Update Manager Evaluation

<http://<server>.<domain>.<ext>.1128/lmsl/sumabap/<SID>/doc/eval/index.html>

### SUM Evaluation

#### Evaluation Form

SAP SE's aim is to provide fast and efficient procedures. To evaluate the procedure you just carried out, we need information generated by the tool during process execution and your experience with the tool itself. The below form contains a simple questionnaire and XML data generated during the procedure. The XML data comprises only technical information and statistics about the executed steps as well as the product and system context in which the steps have been carried out. There is no business, personal or other sensitive data included. The questionnaire and the XML data are solely used for improving performance, quality, and behavior of the procedure. Thus, they will not be used for any marketing or sales purposes.

Once your feedback has been analyzed and followed up, your email address (if you decide to provide it to us) will be deleted. If you have specific questions or problems, please report an incident at SAP Service Marketplace.

After having accepted the legal statement below, you will be able to send the questionnaire and the XML data to SAP.

I accept the following:

1. In order for SAP SE to utilize the feedback provided in the questionnaire, I grant to SAP SE a non-exclusive, perpetual, irrevocable, worldwide, royalty-free license, with the right to sublicense to SAP SE's affiliates, licensees and customers, to use, publish, and disclose such feedback in any manner SAP SE chooses and to display, perform, copy, make, have made, use, sell, and otherwise dispose of SAP SE's and its affiliates' or sublicensee's products or services embodying my feedback in any manner and via any media SAP SE chooses, without reference to the source. SAP SE shall be entitled to use my feedback for any purpose without restriction or remuneration of any kind.
2. I agree that SAP SE may use my email address to contact me regarding the information I provided in the questionnaire. SAP SE (i) will process the email address in Germany and/or Bulgaria and/or India, (ii) only as long as it is required to evaluate the information that I provided in the questionnaire and (iii) will not use my email address for any other purpose. In case you want to have your email address corrected or deleted, please contact [lm\\_analytics@sap.com](mailto:lm_analytics@sap.com).
3. I agree not to enter into any free fields of the questionnaire any information which could be a trade secret, personal data (other than my email address), proprietary or otherwise confidential for me, my employer or any third party.

**SEND TO SAP**

This send button submits the evaluation of your maintenance process and the form below to SAP SE.

Please send this to SAP SE even if you do not fill in the form below.

What kind of system did you run the process on?

- Development system
- Quality system
- Production system
- Actual system
- Test on copy of the system

Did you run the process on the actual system or a copy of it (i. e. test process)?

How many times did you contact SAP SE for help with your process (customer calls or incidents)?

#### Post Activities after the main DMO Procedure

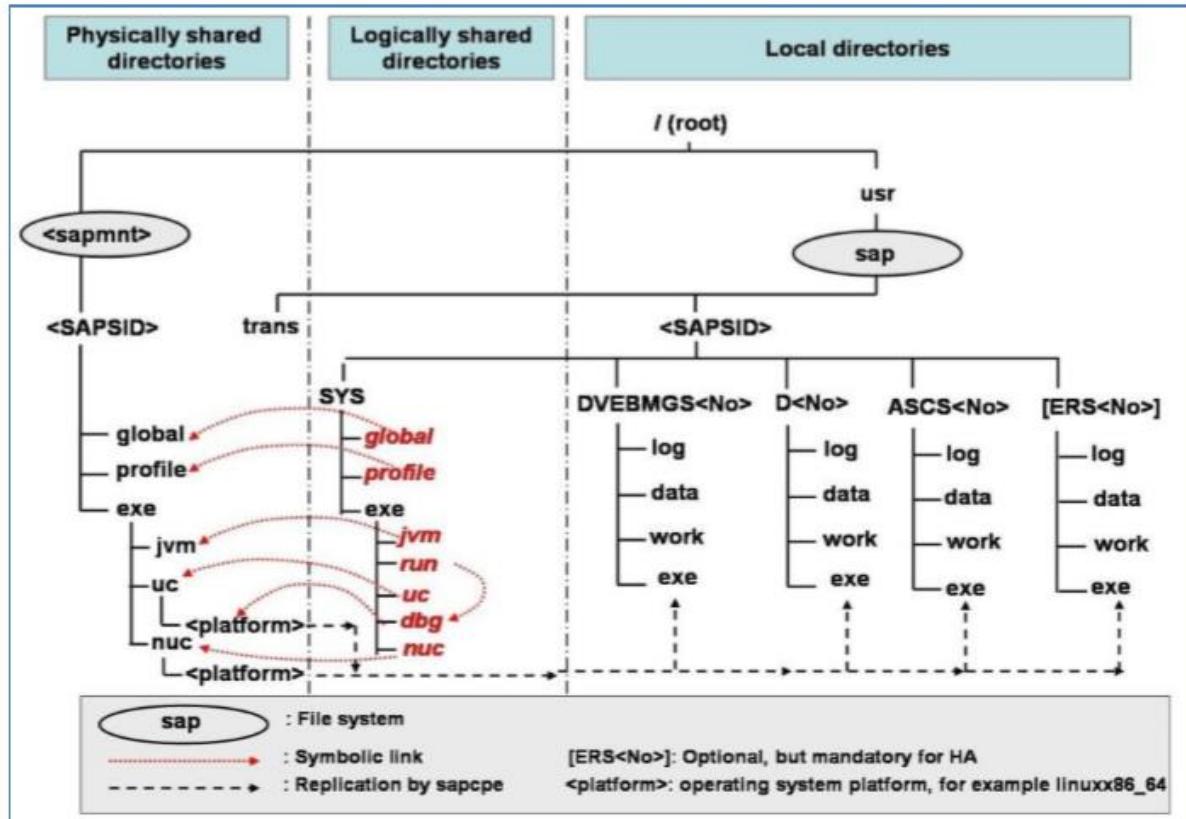
Split off ASCS Instance from Existing Server

In case the Source System was based on non-unicode (NUC) or was already upgraded from a previous release, you must check the file structure of your SAP Instance manually. See the following Notes for details:

Windows ➔ Note 919046 - Upgrade to the New Instance-Specific Directory Structure

UNIX ➔ Note 1104735 - Upgrade to new instance-specific directory on UNIX

The following graphic illustrates the new structure on UNIX based systems (since NetWeaver 7.0 UC):



Phase: 134 - new structure on UNIX based systems

