APPLIES TO:

SAP Update/Upgrade using SUM tool (Software Update Manager).

SUMMARY

This article explains how to update/upgrade the SAP System.

AUTHOR:

K.VENKATA RAMU.

COMPANY:

WILLSYS INFOSYSTEMS Pvt. Ltd.,

CREATED ON:

9th Sepetember 2016.

SAP Update or Upgrade through SUM

SUM : It is a comprehensive Tool that is used Apply the Support packages/Add-ons, Kernel Update and SAP Upgrade. Download the latest SUM from SAP Market Place along with the SUM Note. The Software Update Manager (SUM) is the tool for various system maintenance procedures such as:

- Release upgrades (major release change) 7.0, 7.1, 7.3, 7.4 to 7.5.
- System updates (EHP installation) ERP6 to ERP 6 EHP4,5,6,7,8.
- Support Packages (SPs) / Support Package Stacks applications (SP0 to SP3).
- Java patches applications.
- Corrections of installed software information (Kernel and Single Support Packs).
- Conversion of SAP systems to SAP S/4HANA.

In addition it offers the following options and features:

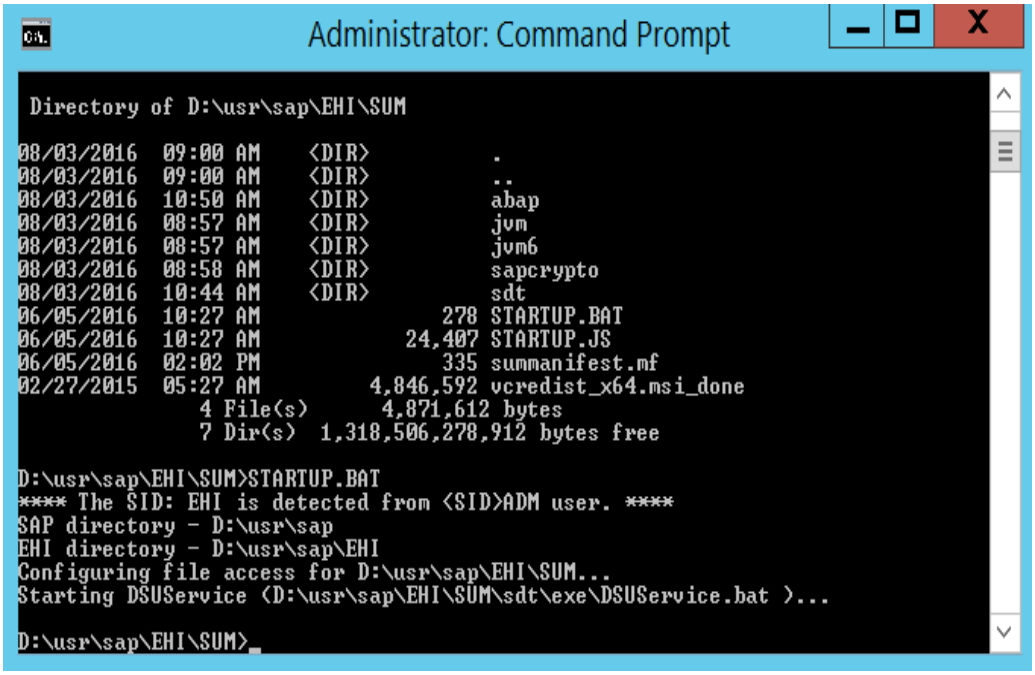
- DMO: Database Migration Option (system update combined with database migration to SAP HANA, SAP ASE, or MS SQL)
- ZDO: Zero Downtime Option (upgrades without a technical downtime and with a minimized business downtime)
- nZDM: Near-Zero Downtime Maintenance(includes features to minimize Business Downtime)
- Benchmarking Tool
- Table Comparison
- Customer Releases

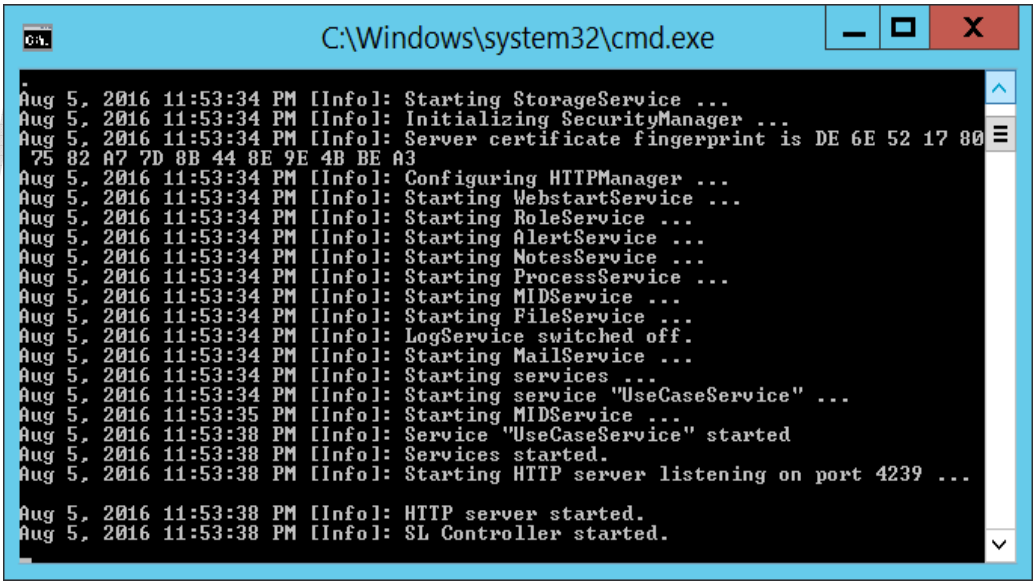
Willsys Infosystems

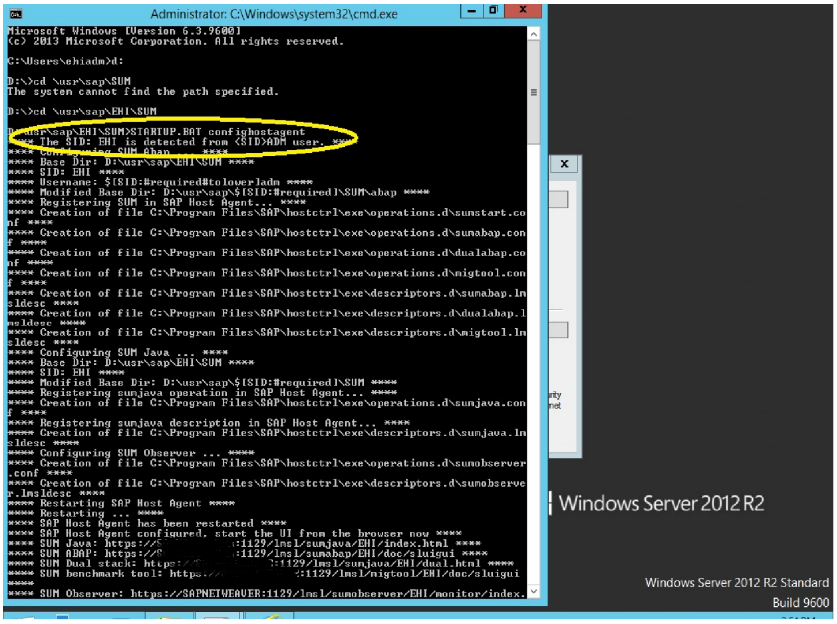
The Following Information is related to a Source Version of SAP Netweaver System which is proposed for Upgrade.
SOURCE: Netweaver 7.5-0000
TARGET: Netweaver 7.5-0003
OS: Windows Server 2012R2
Database: MSSQL 2012
SUM tool version: SUM1.0 SP17
Expected Down Time: 4 Hours

Procedure:

1. Add the System in Solution Manager.
2. Configure RZ70 to Pouplate the Information into SLD(System Landscape Directory.
3. Configure LMDB or SMSY.
4. Define Solution in Solution_Manager(dswp) unitl 7.0. Use Solman_Workcenter from Solution Manager version 7.1.
5. Create a Transaction in Maintenance Optimizer and Choose the Select the Update/Upgrade Automatically/Manually.The selected packages information is stored in stack.xml
6. Download stack.xml file using MOPZ(maintenance Optimizer) from Solution manager.
7. Download the software media for update/upgrade using (SAP Software Download Manager).Download latest SUM tool for upgrade.
8. Copy the SUM<version>.SAR file to /usr/sap/SID of target system.
9. Login to the Operating System as SIDADM user & UNCAR the SUM<version>.SAR file. It generates a SUM Folder along with Sum Sub Directories.
10. Navigate to /usr/sap/SID/SUM and run the following scripts to start SUM TOOL(Software Logisticis Controller)
11. >STARTUP.BAT on Windows or use ./startup on Unix Operating Systems.

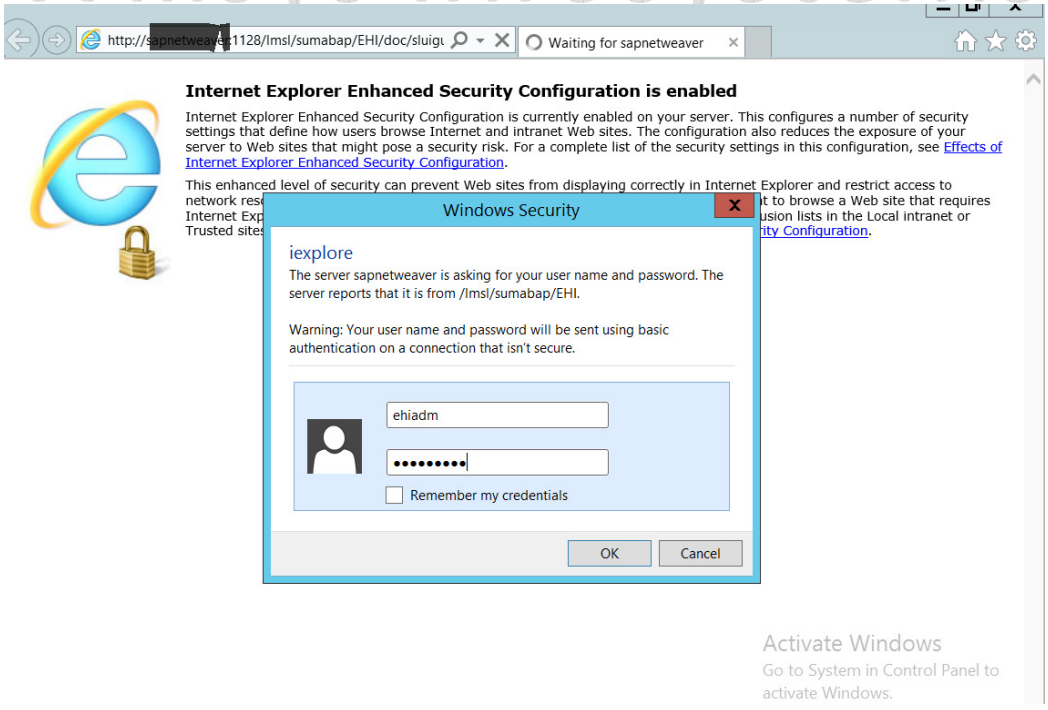

Administrator: Command Prompt
Directory of D:\usr\sap\EHI\SUM
08/03/2016 09:00 AM <DIR> .
08/03/2016 09:00 AM <DIR> ..
08/03/2016 10:50 AM <DIR> abap
08/03/2016 08:57 AM <DIR> jvm
08/03/2016 08:57 AM <DIR> jvm6
08/03/2016 08:58 AM <DIR> sapcrypto
08/03/2016 10:44 AM <DIR> sdt
06/05/2016 10:27 AM 278 STARTUP.BAT
06/05/2016 10:27 AM 24,407 STARTUP.JS
06/05/2016 02:02 PM 335 summanifest.mf
02/27/2015 05:27 AM 4,846,592 vcredist_x64.msi_done
4 File(s) 4,871,612 bytes
7 Dir(s) 1,318,506,278,912 bytes free
D:\usr\sap\EHI\SUM>STARTUP.BAT
**** The SID: EHI is detected from <SID>ADM user. ****
SAP directory - D:\usr\sap
EHI directory - D:\usr\sap\EHI
Configuring file access for D:\usr\sap\EHI\SUM...
Starting DSUService (D:\usr\sap\EHI\SUM\sdt\exe\DSUService.bat)...
D:\usr\sap\EHI\SUM>


C:\Windows\system32\cmd.exe
Aug 5, 2016 11:53:34 PM [Info]: Starting StorageService ...
Aug 5, 2016 11:53:34 PM [Info]: Initializing SecurityManager ...
Aug 5, 2016 11:53:34 PM [Info]: Server certificate fingerprint is DE 6E 52 17 80 75 82 A7 7D 8B 44 8E 9E 4B BE A3
Aug 5, 2016 11:53:34 PM [Info]: Configuring HTTPManager ...
Aug 5, 2016 11:53:34 PM [Info]: Starting WebstartService ...
Aug 5, 2016 11:53:34 PM [Info]: Starting RoleService ...
Aug 5, 2016 11:53:34 PM [Info]: Starting AlertService ...
Aug 5, 2016 11:53:34 PM [Info]: Starting NotesService ...
Aug 5, 2016 11:53:34 PM [Info]: Starting ProcessService ...
Aug 5, 2016 11:53:34 PM [Info]: Starting MIDService ...
Aug 5, 2016 11:53:34 PM [Info]: Starting FileService ...
Aug 5, 2016 11:53:34 PM [Info]: LogService switched off.
Aug 5, 2016 11:53:34 PM [Info]: Starting MailService ...
Aug 5, 2016 11:53:34 PM [Info]: Starting services ...
Aug 5, 2016 11:53:34 PM [Info]: Starting service "UseCaseService" ...
Aug 5, 2016 11:53:35 PM [Info]: Starting MIDService ...
Aug 5, 2016 11:53:38 PM [Info]: Service "UseCaseService" started
Aug 5, 2016 11:53:38 PM [Info]: Services started.
Aug 5, 2016 11:53:38 PM [Info]: Starting HTTP server listening on port 4239 ...
Aug 5, 2016 11:53:38 PM [Info]: HTTP server started.
Aug 5, 2016 11:53:38 PM [Info]: SL Controller started.



12. >STARTUP.BAT confighostagent (configuring the SUM tool to Use the Host Agent)
13. Now login to Administrator user and access/start the SUM for ABAP with following URL.
https://hostname:1129/lmsl/sumabap/EHI/doc/sluigui (SSL should be configured)
http://hostname:1128/lmsl/sumabap/EHI/doc/sluigui provide sidadm userid and password.

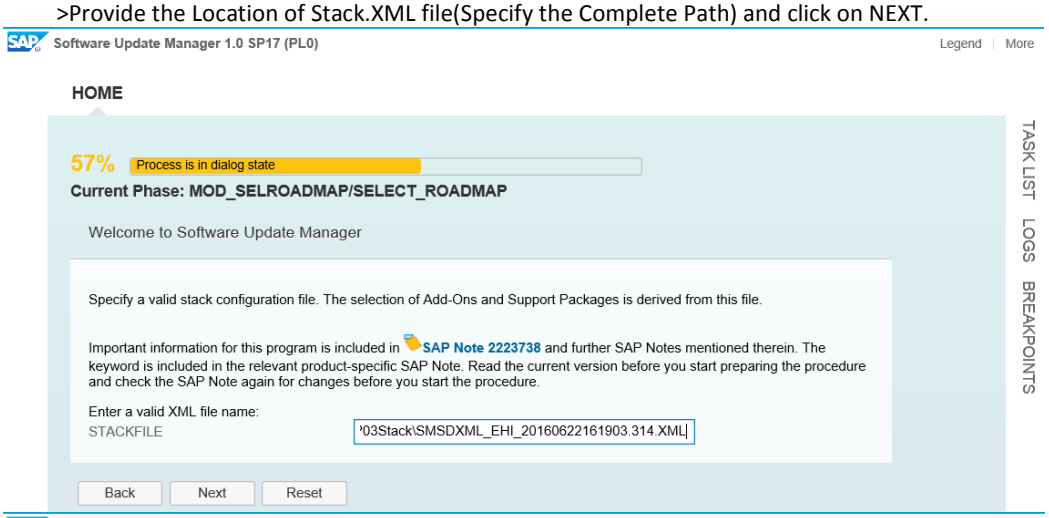
Willsys Infosystems

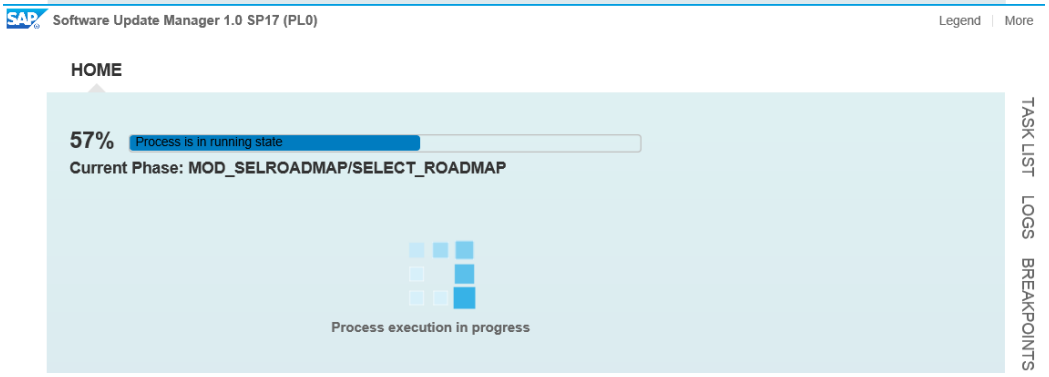


****SUM PHASES****

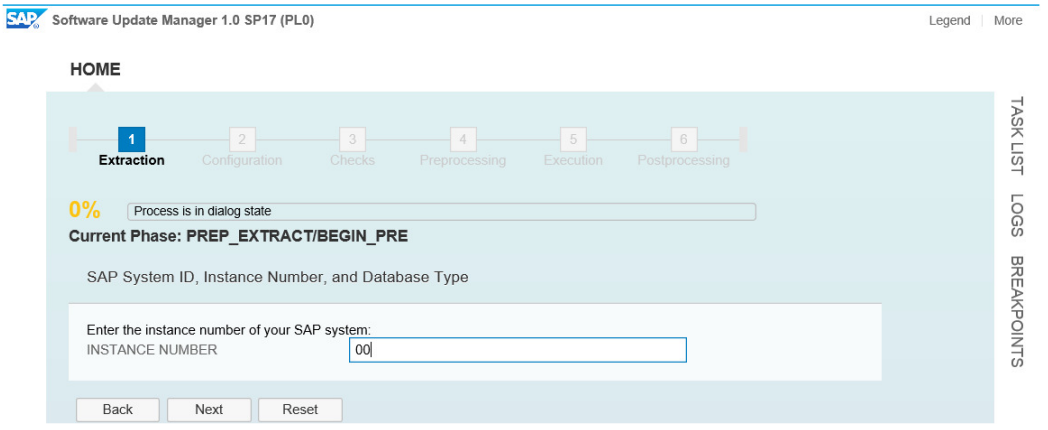
1- Initialization:

>Provide the Location of Stack.XML file(Specify the Complete Path) and click on NEXT.





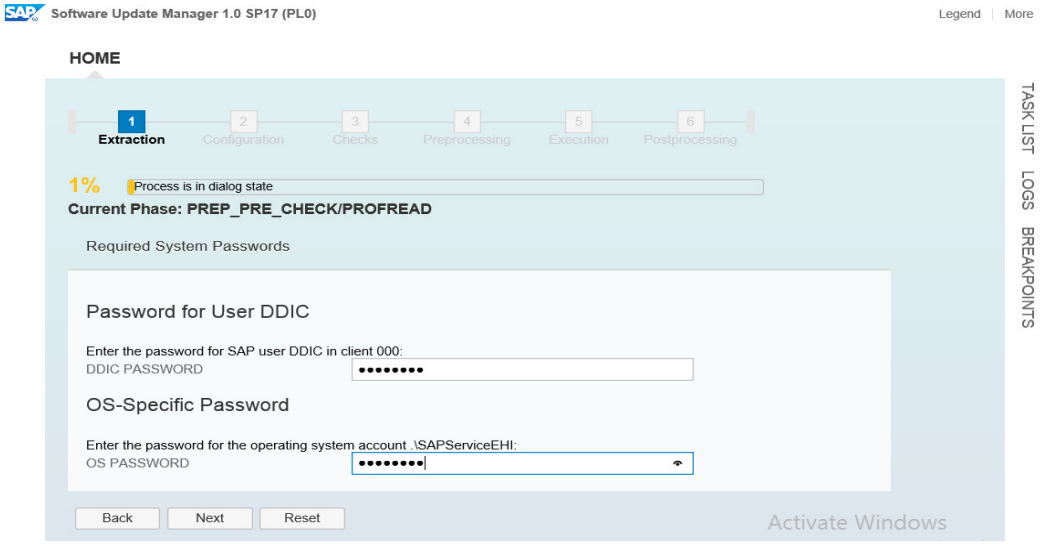
>Instance Number and click on NEXT.



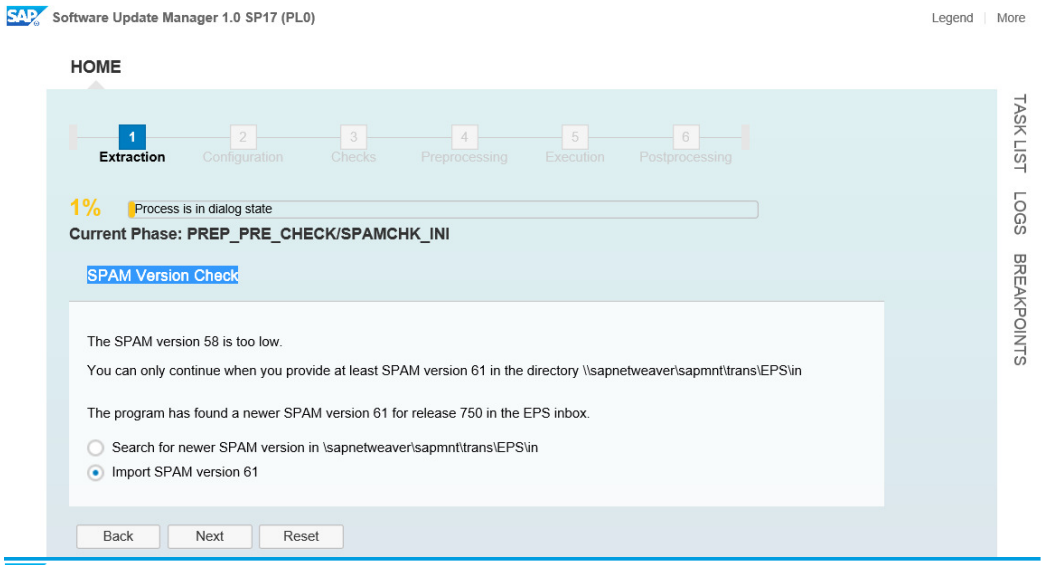
2-Extraction:

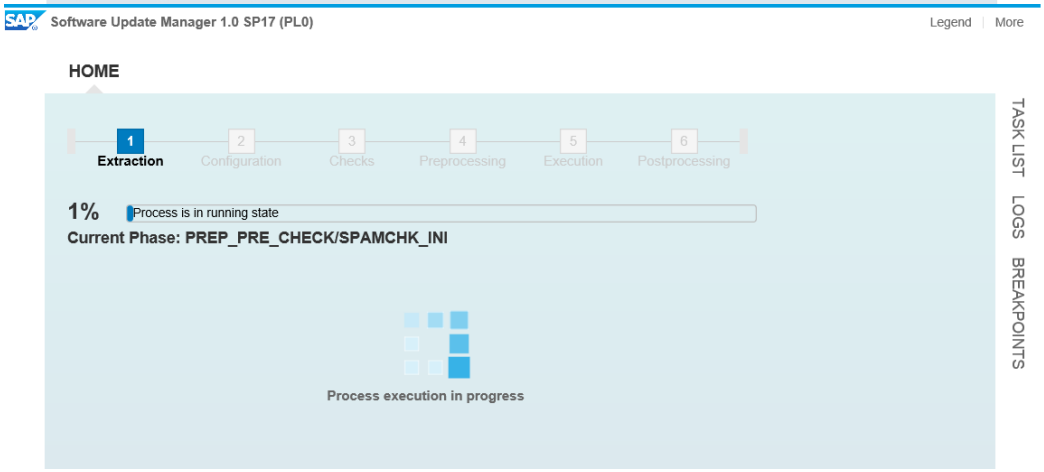
Following activities performed in this phase:

>ddic password in 000 client and os level user user password (sapservice) and click on NEXT.

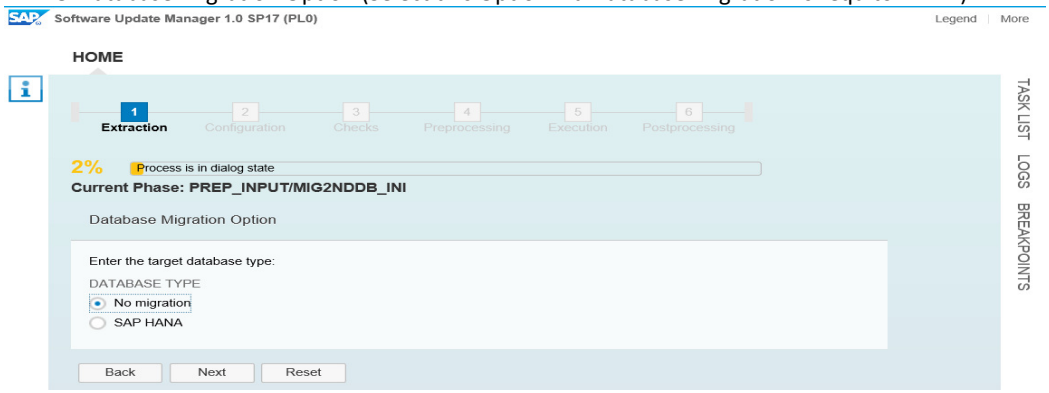


>Import SPAM/SAINT and click on NEXT.(Skip this if upgraded the latest SPAM in pre steps).



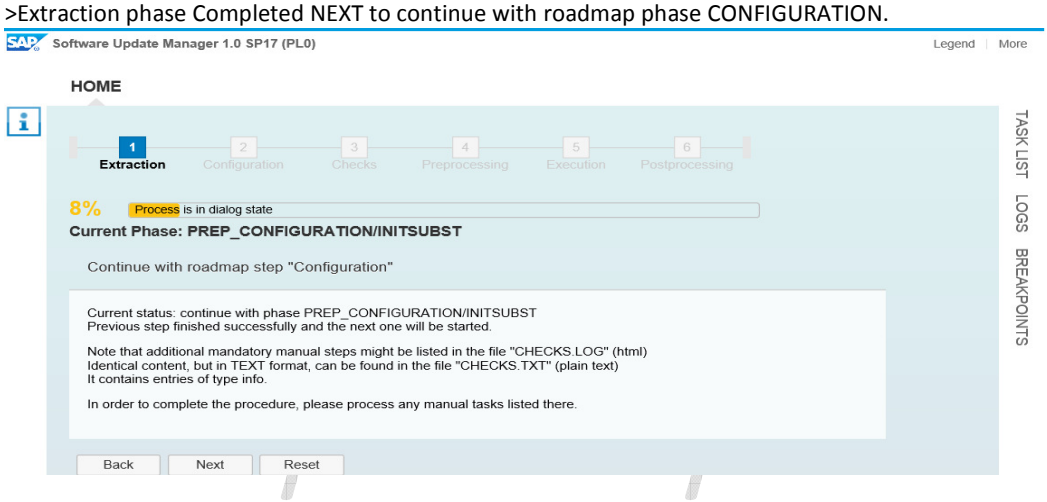


>DMO-Database Migration Option (Select this Option if a Database Migration is reqd to HANA).



>Scanning of download directory where all the patches are placed Extract files to move to EPS/in.

>Extraction phase Completed NEXT to continue with roadmap phase CONFIGURATION.



3-Configuration:

Following activities performed in this phase.

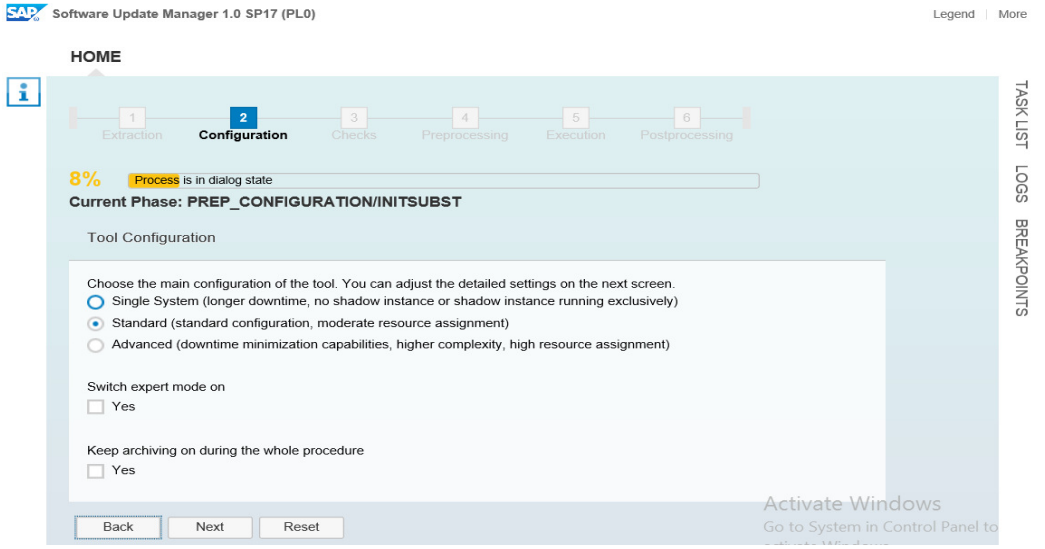
>Main upgrade configuration, where you will give input parameters for -advanced (expensive downtime optimize, higher complexity, high resource assignment).

>"Single System" = no use of shadow instance (update) or shadow instance runs exclusively.

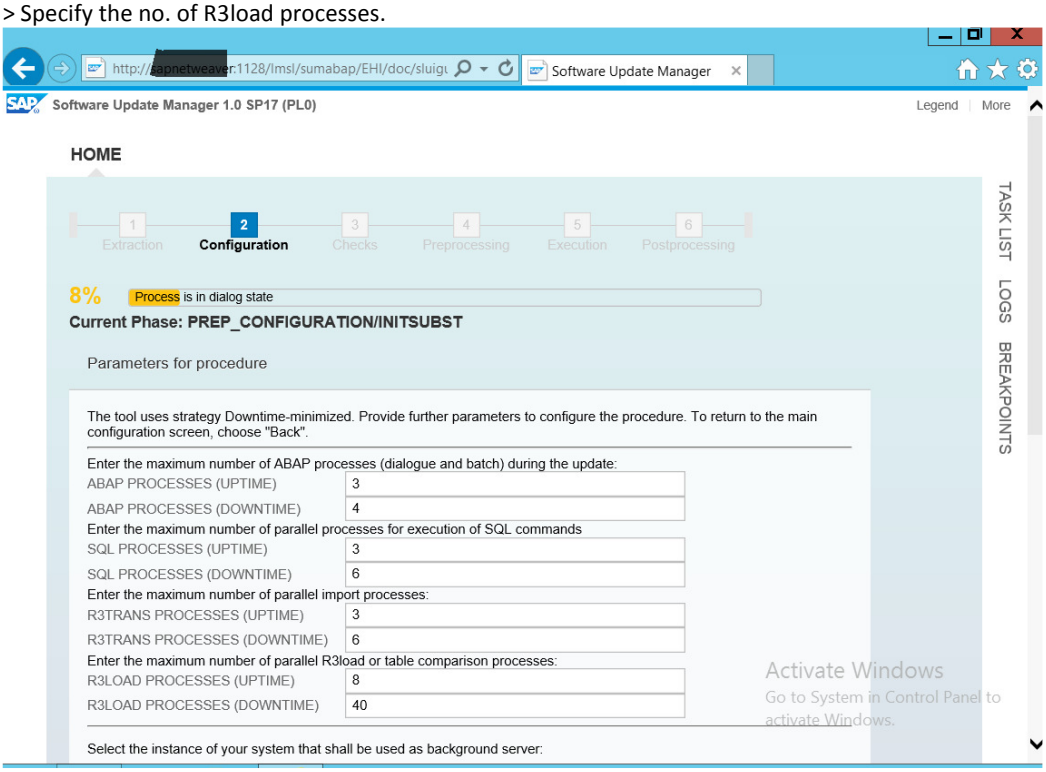
>"Standard" = similar to EHPi or SAPup.

>"Advanced" = intention to minimize the downtime.

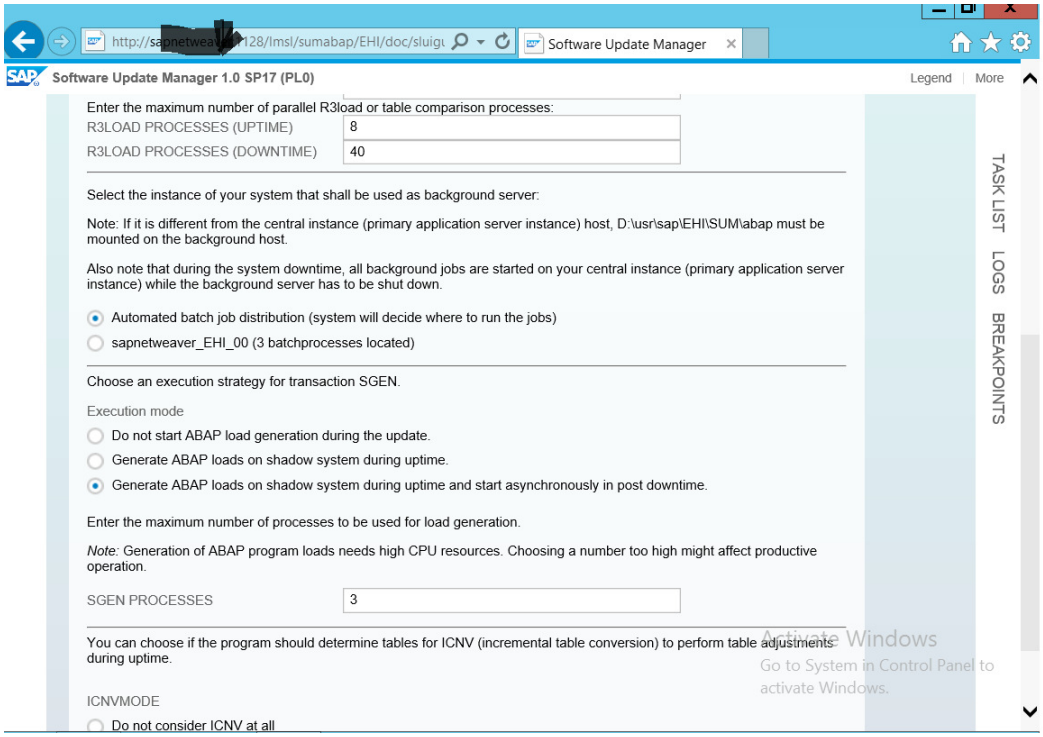
>Select the database archiving strategy on/off.



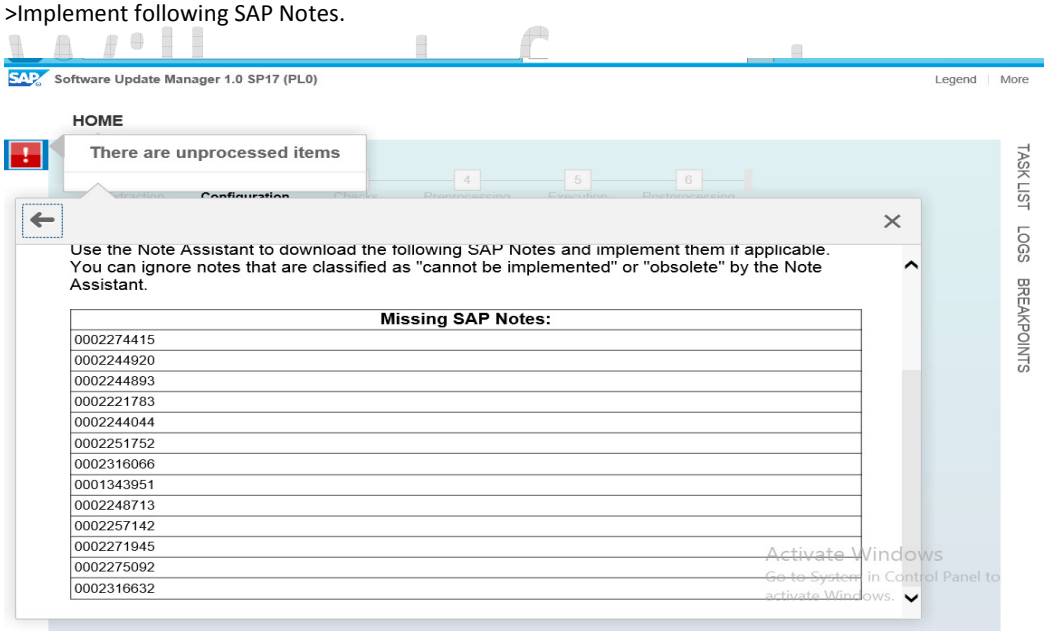
>Specify the no of DIALOG and BACKGROUND Process during Upgrade.
>Specify the no of parallel processes for execution of SQL commands.
>Number of parallel import processes (R3trans -Uptime and Downtime).
> Specify the no. of R3load processes.

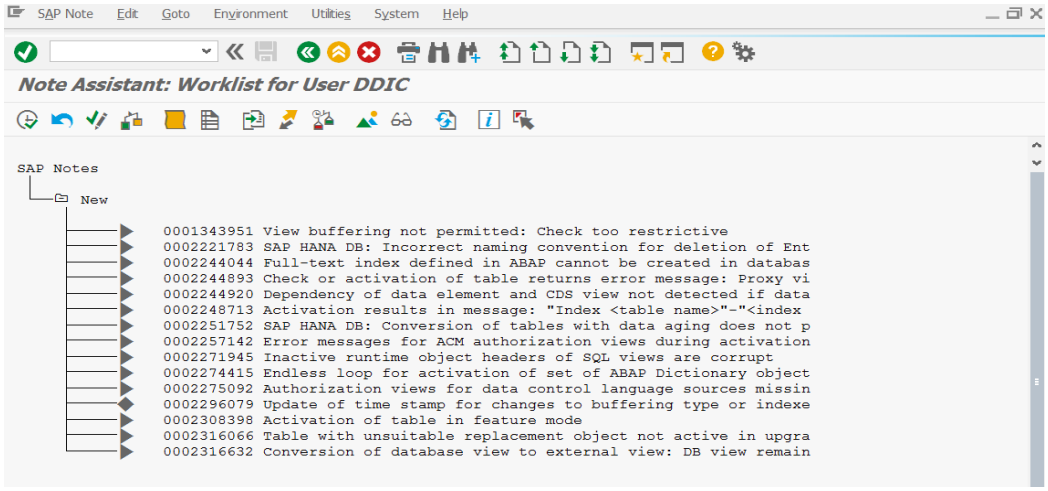


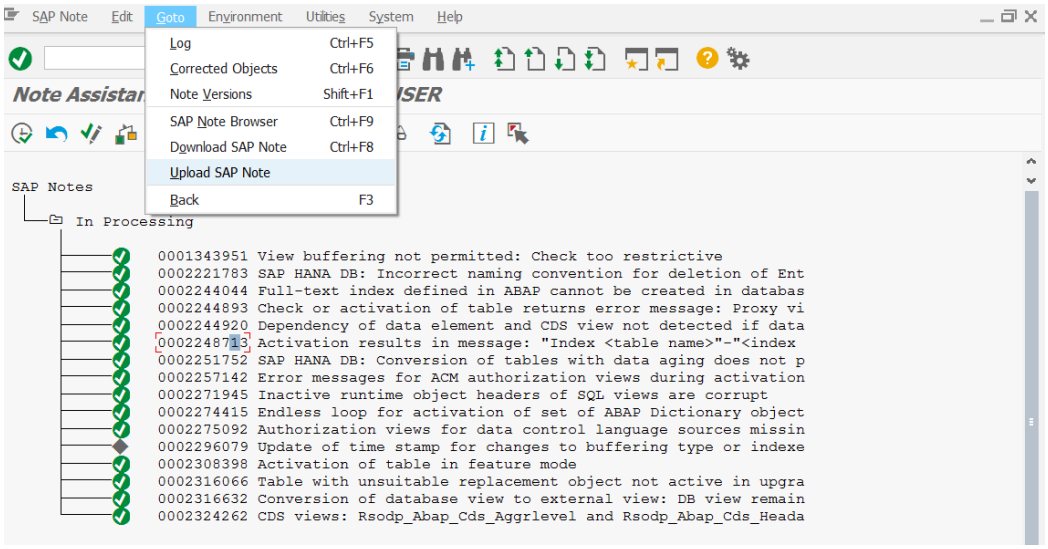
>Execution strategy for transaction SGEN.
>Maximum number of processes to be used for load generation (SGEN Processes).
>Calculate ICNV.



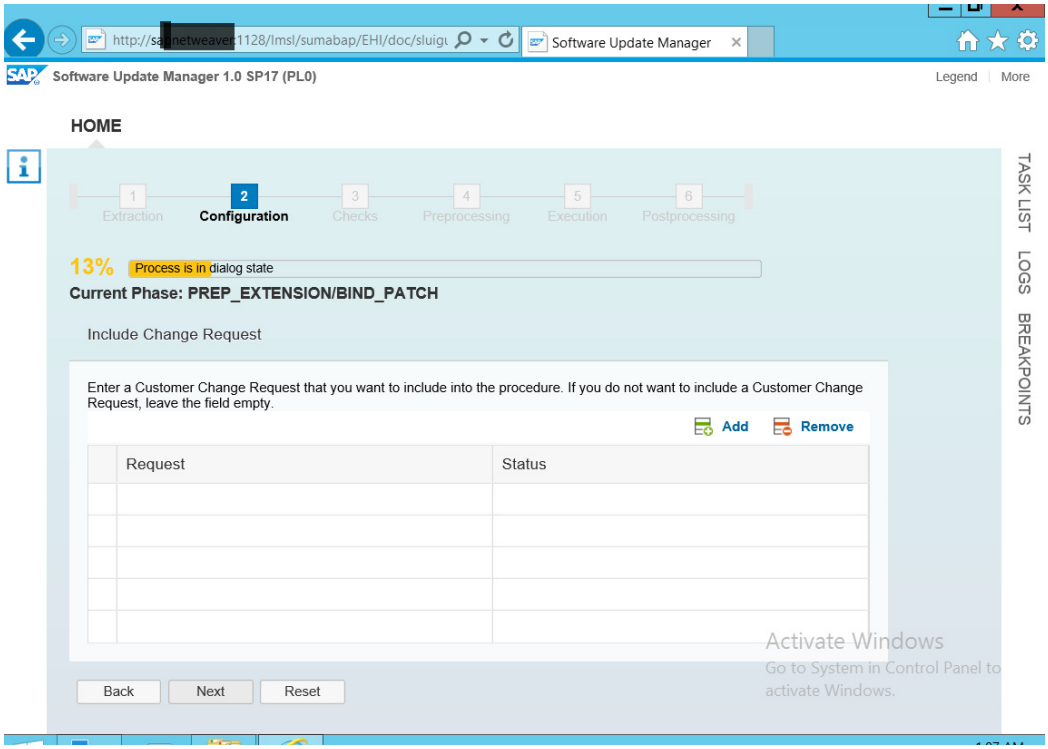
>Implement following SAP Notes.



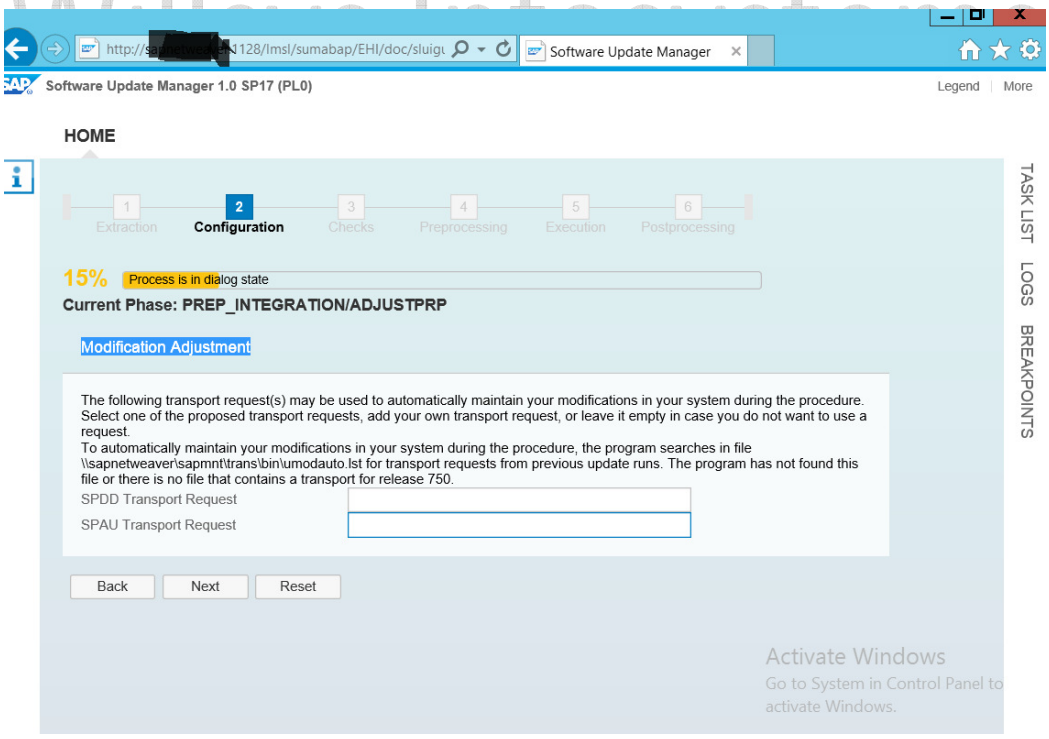




>Include Change Request (If want to include any customer change request).



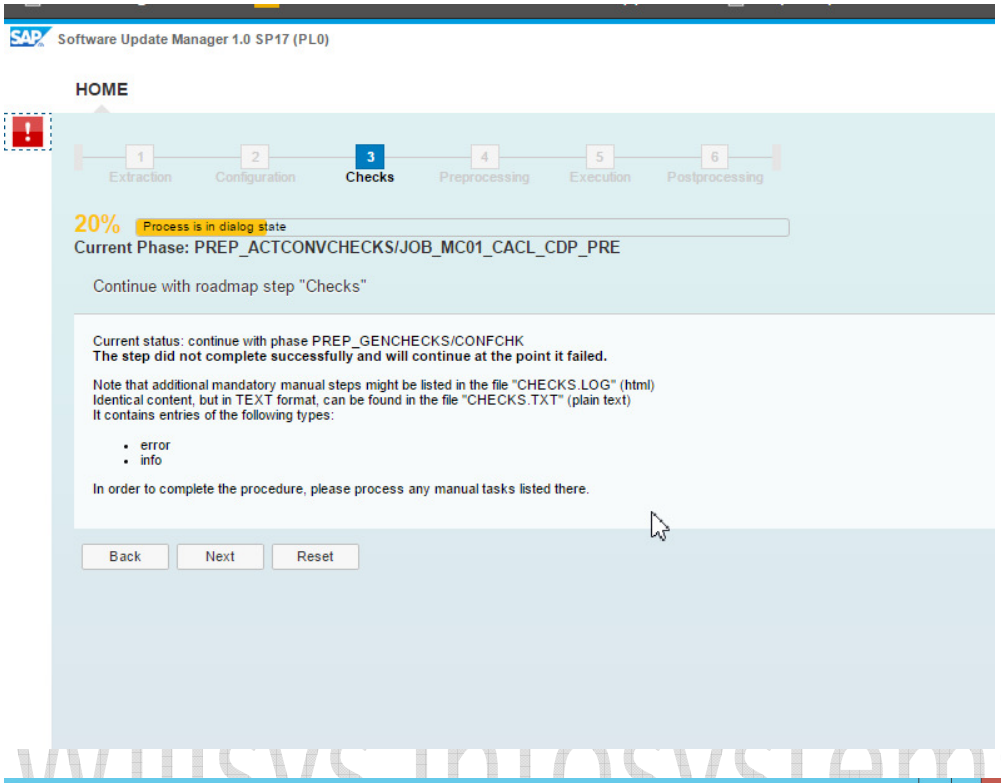
>Modification Adjustment (SPDD transport request and SPAU transport request).

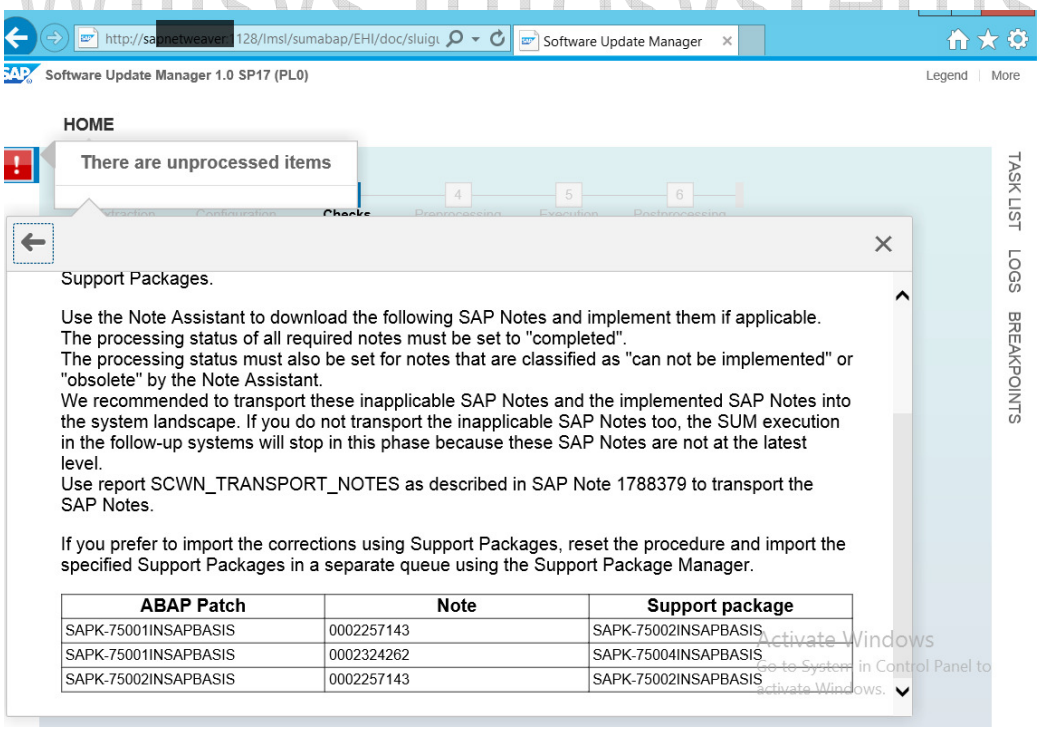


> CONFIGURATION phase Completed NEXT to continue with roadmap phase CHECKS.

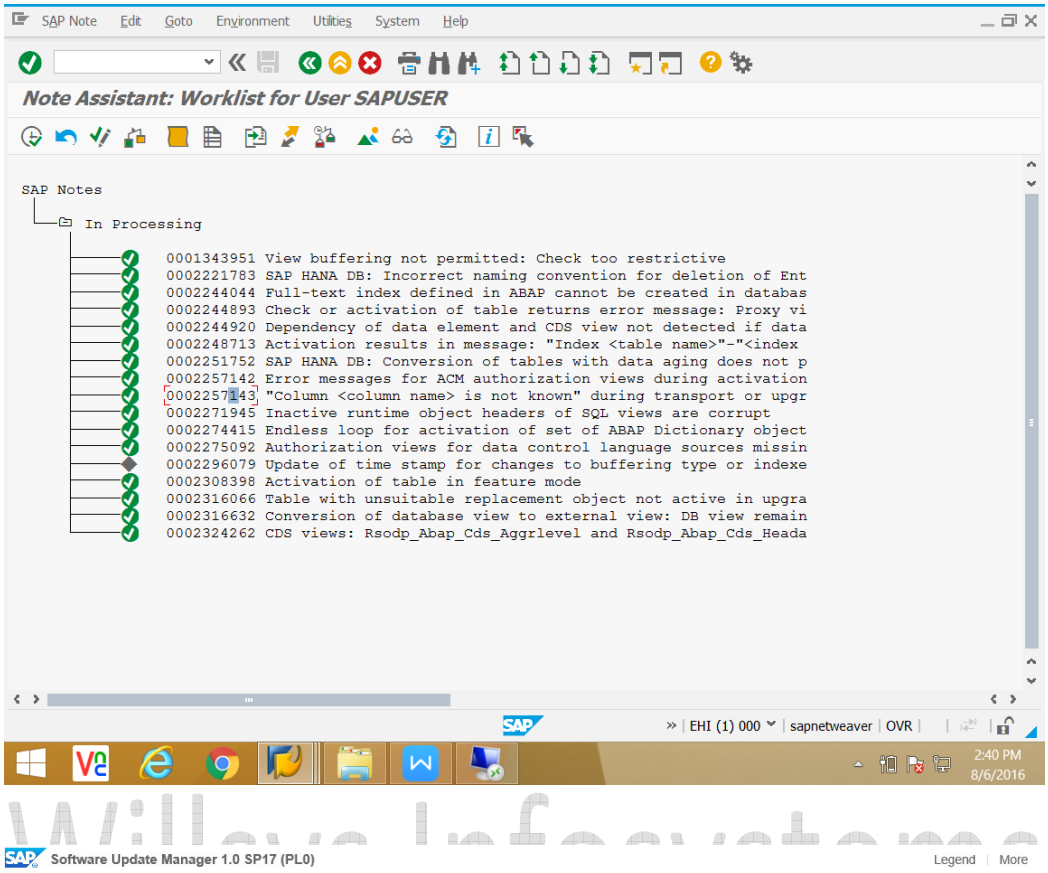
4-Checks:

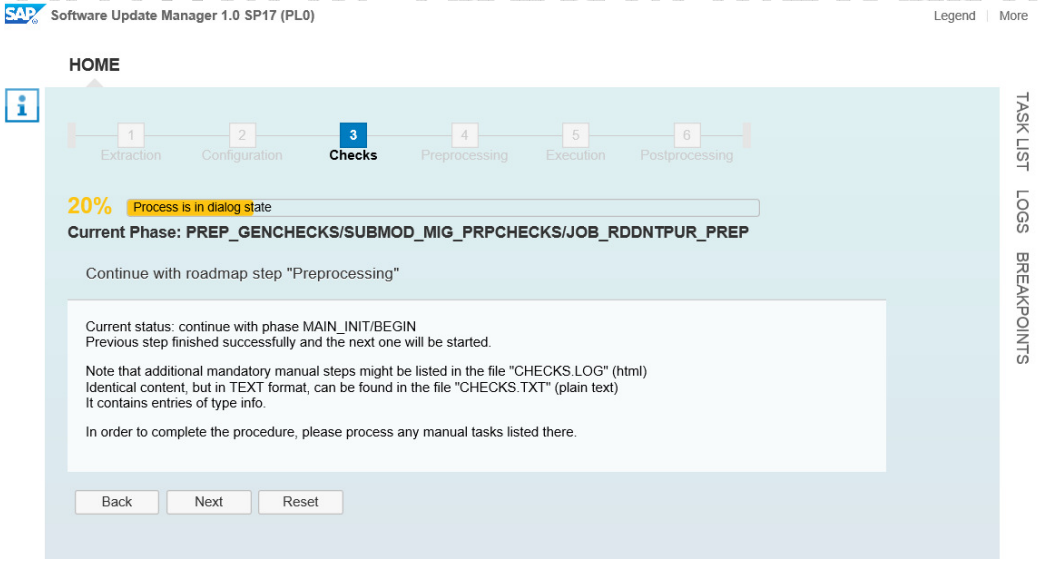
Following activities performed in this phase:





>Implement Notes.

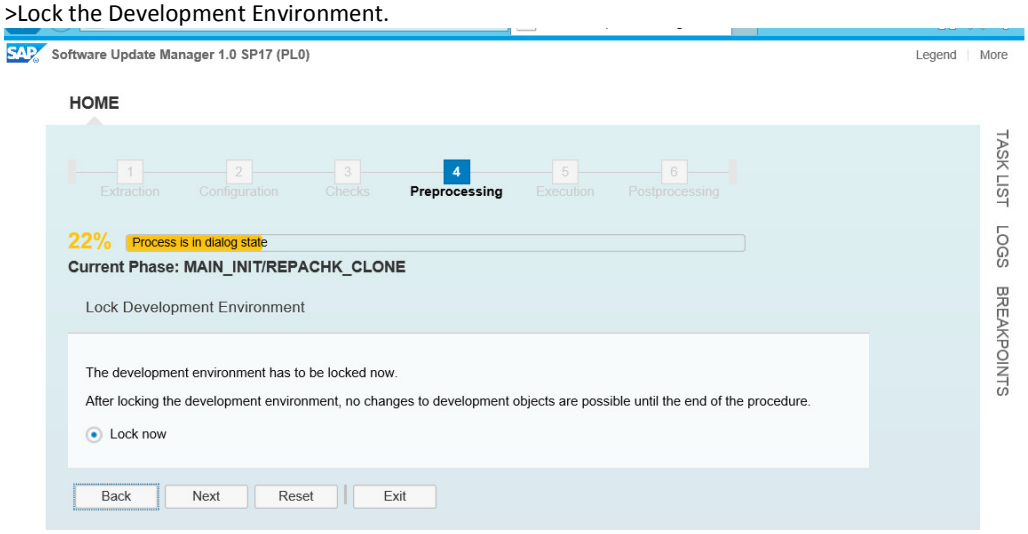

SAP Note Edit Goto Environment Utilities System Help
Note Assistant: Worklist for User SAPUSER
SAP Notes
In Processing
0001343951 View buffering not permitted: Check too restrictive
0002221783 SAP HANA DB: Incorrect naming convention for deletion of Ent
0002244044 Full-text index defined in ABAP cannot be created in databas
0002244893 Check or activation of table returns error message: Proxy vi
0002244920 Dependency of data element and CDS view not detected if data
0002248713 Activation results in message: "Index <table name>"-"<index
0002251752 SAP HANA DB: Conversion of tables with data aging does not p
0002257142 Error messages for ACM authorization views during activation
0002257143 "Column <column name> is not known" during transport or upgr
0002271945 Inactive runtime object headers of SQL views are corrupt
0002274415 Endless loop for activation of set of ABAP Dictionary object
0002275092 Authorization views for data control language sources missin
0002296079 Update of time stamp for changes to buffering type or indexe
0002308398 Activation of table in feature mode
0002316066 Table with unsuitable replacement object not active in upgra
0002316632 Conversion of database view to external view: DB view remain
0002324262 CDS views: Rsodp_Abap_Cds_Aggrlevel and Rsodp_Abap_Cds_Heada
EHI (1) 000 | sapnetweaver | OVR
2:40 PM
8/6/2016

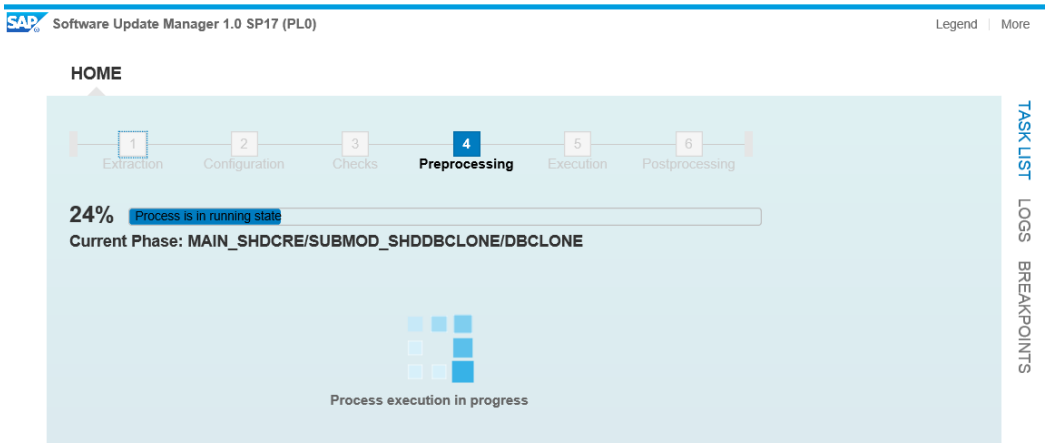

Software Update Manager 1.0 SP17 (PL0)
Legend More
HOME
1 Extraction
2 Configuration
3 Checks
4 Preprocessing
5 Execution
6 Postprocessing
20% Process is in dialog state
Current Phase: PREP_GENCHECKS/SUBMOD_MIG_PRPCHECKS/JOB_RDDNTPUR_PREP
Continue with roadmap step "Preprocessing"
Current status: continue with phase MAIN_INIT/BEGIN
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.
Back
Next
Reset
TASK LIST
LOGS
BREAKPOINTS

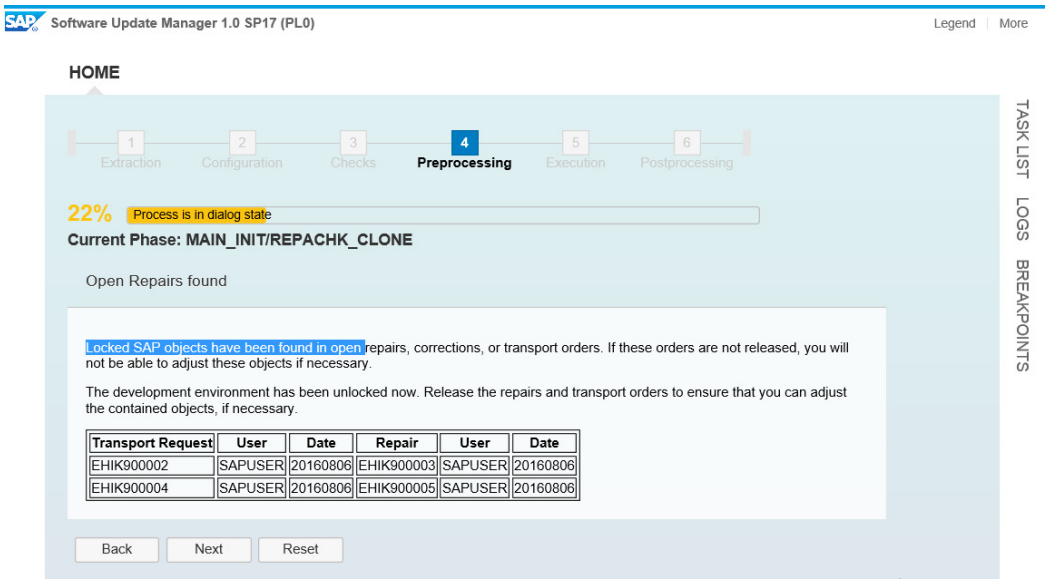
5-Preprocessing:

Following activities performed in this phase:

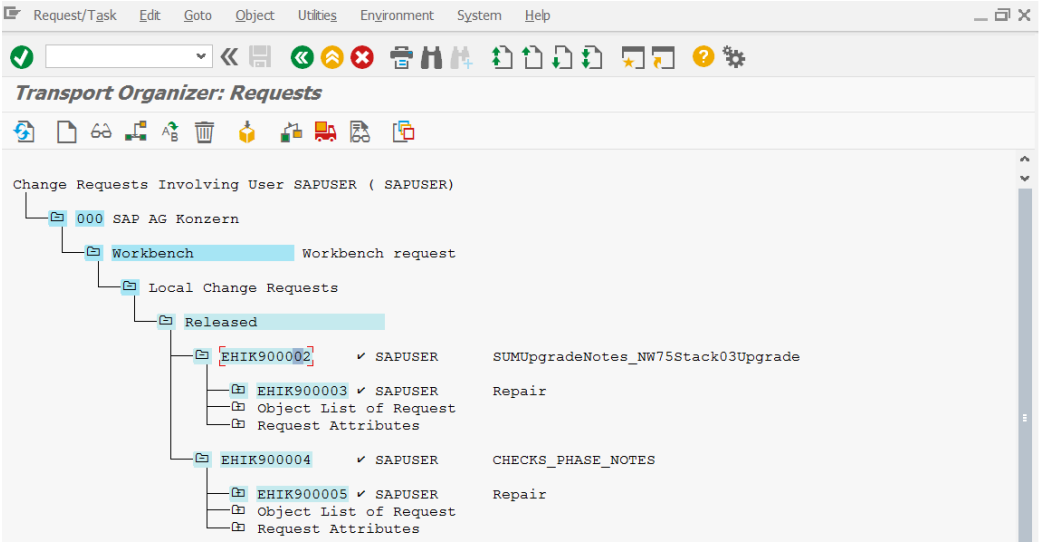
>Lock the Development Environment.



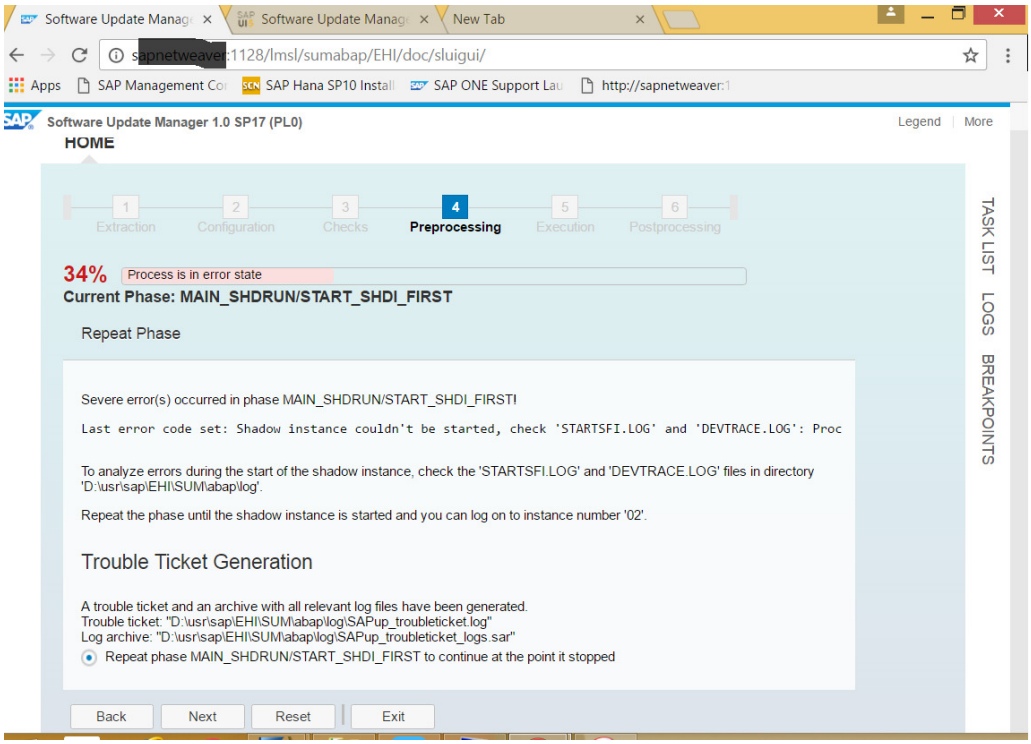




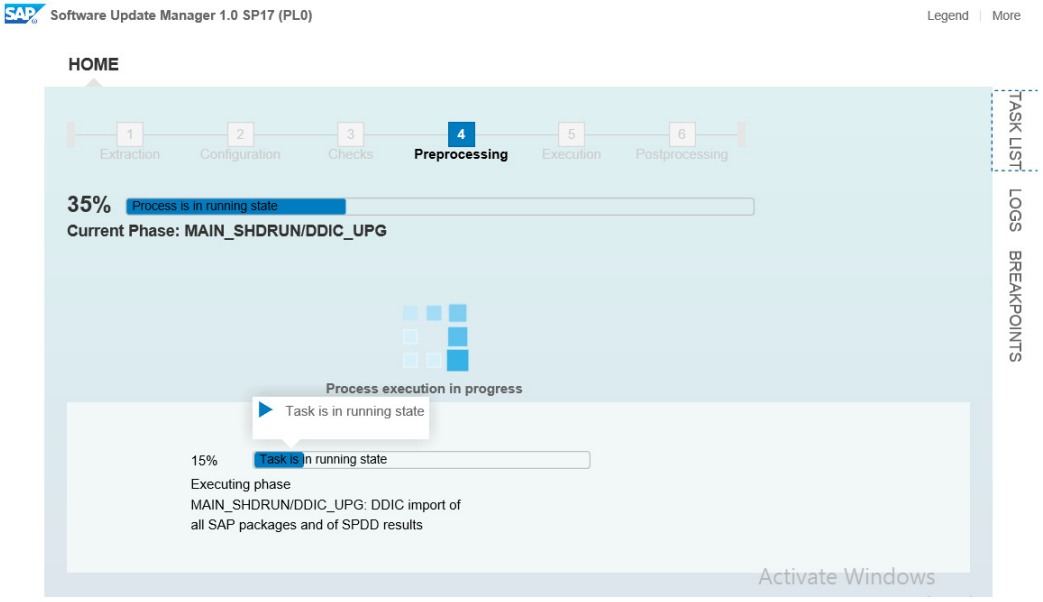
>Make sure No pending transports if exists release them in SE01 and Continue.

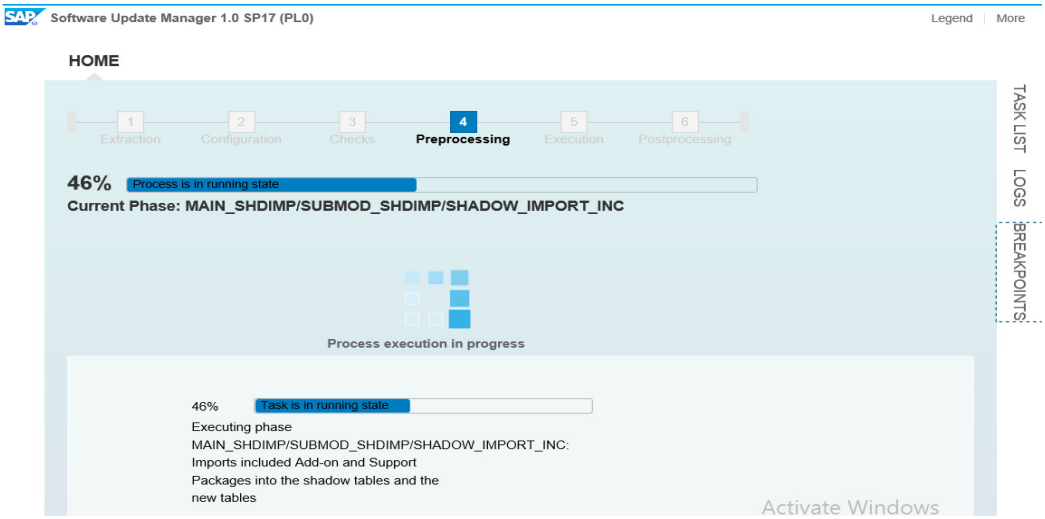


> Shadow instance is not starting in this phase. so make changes to value to em/initial_size_MB=1024 in instance profile.

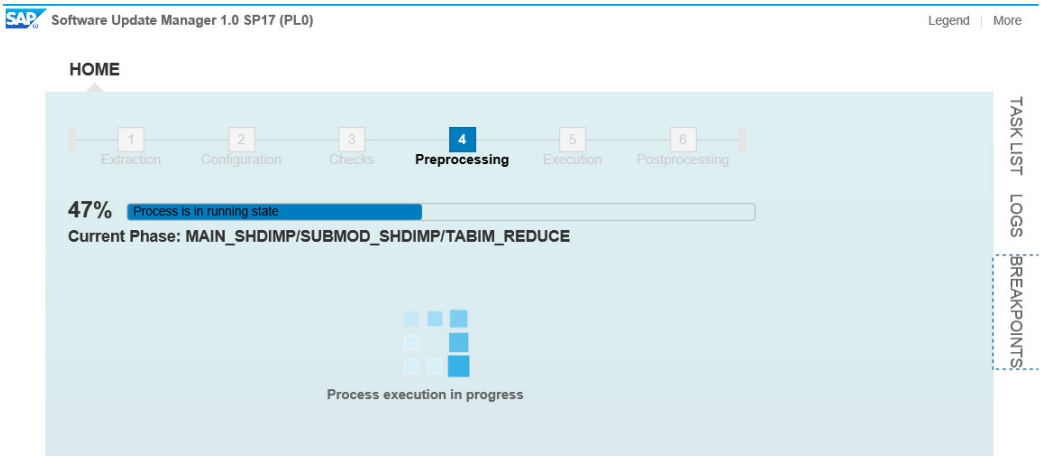


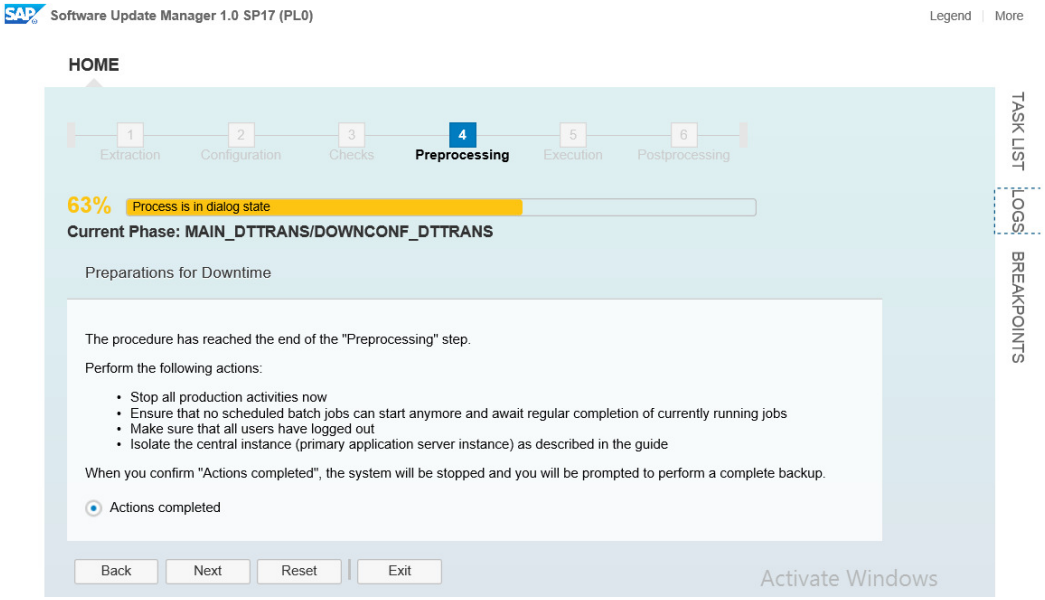
>Shadow system built.

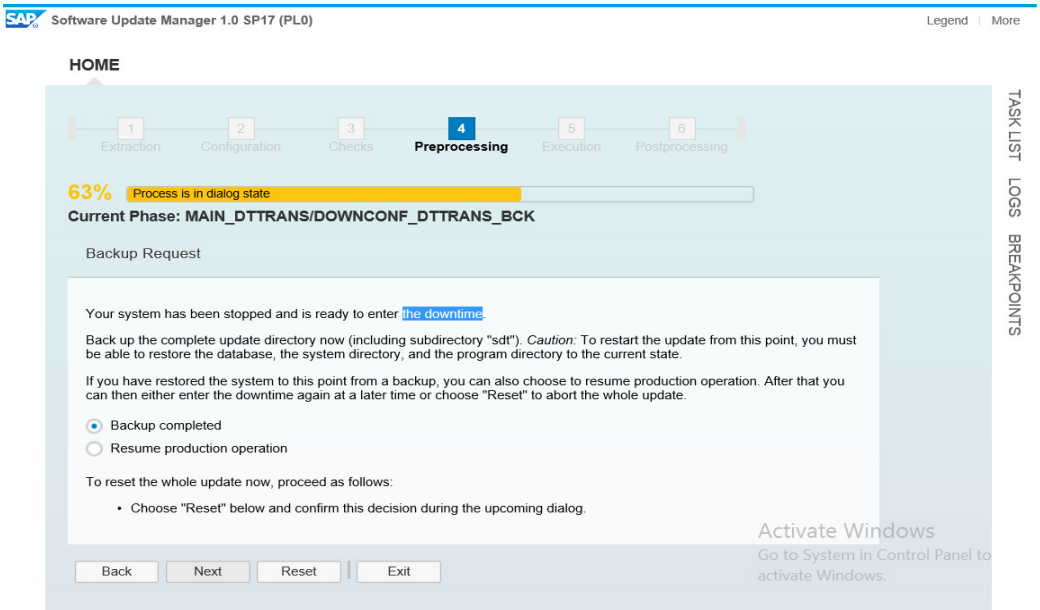


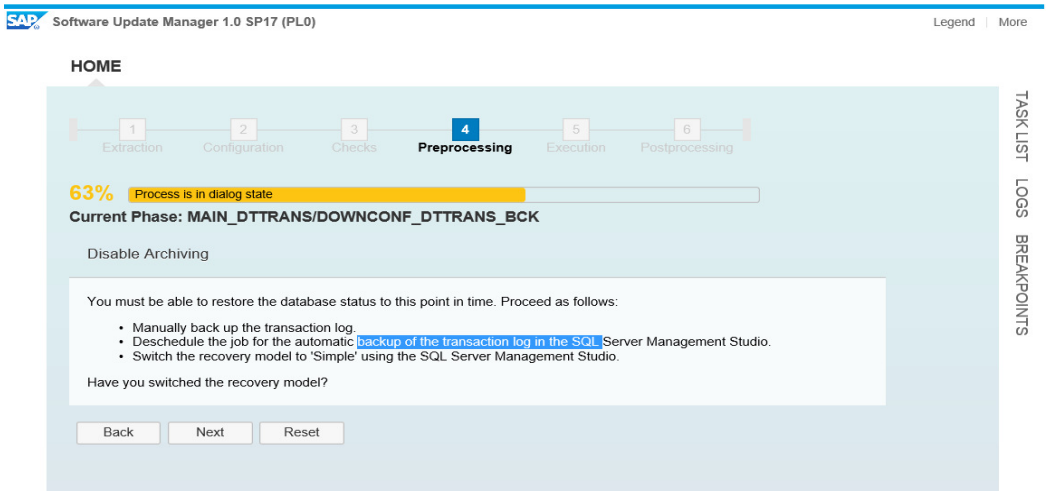


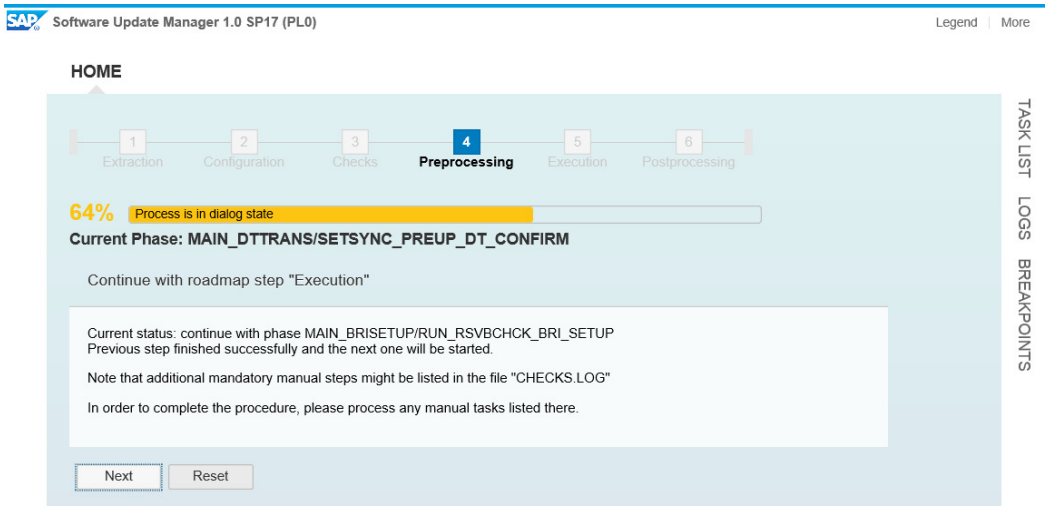
>Data load in shadow system.




Software Update Manager 1.0 SP17 (PL0)
Legend | More
HOME
1 Extraction
2 Configuration
3 Checks
4 Preprocessing
5 Execution
6 Postprocessing
TASK LIST
LOGS
BREAKPOINTS
63% 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 guide
When you confirm "Actions completed", the system will be stopped and you will be prompted to perform a complete backup.
Actions completed
Back
Next
Reset
Exit
Activate Windows


Software Update Manager 1.0 SP17 (PL0)
Legend | More
HOME
1 Extraction
2 Configuration
3 Checks
4 Preprocessing
5 Execution
6 Postprocessing
TASK LIST
LOGS
BREAKPOINTS
63% Process is in dialog state
Current Phase: MAIN_DTTRANS/DOWNCONF_DTTRANS_BCK
Backup Request
Your system has been stopped and is ready to enter the downtime.
Back up the complete update directory now (including subdirectory "sdt"). Caution: To restart the update from this point, you must be able to restore the database, the system directory, and the program directory to the current state.
If you have restored the system to this point from a backup, you can also choose to resume production operation. After that you can then either enter the downtime again at a later time or choose "Reset" to abort the whole update.
Backup completed
Resume production operation
To reset the whole update now, proceed as follows:
• Choose "Reset" below and confirm this decision during the upcoming dialog.
Back
Next
Reset
Exit
Activate Windows
Go to System in Control Panel to activate Windows.





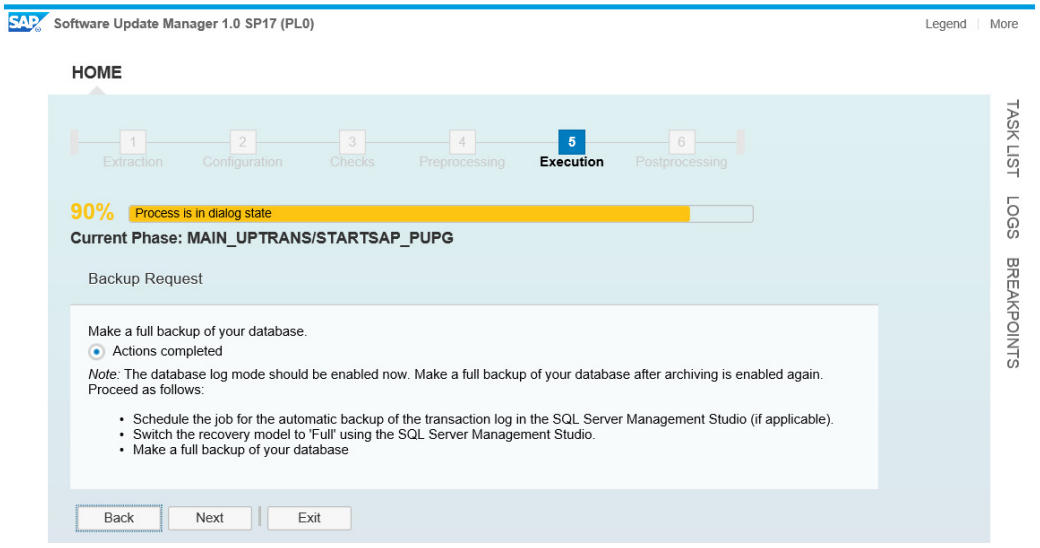
> PREPROCESSING phase Completed NEXT to continue with roadmap phase EXECUTION.

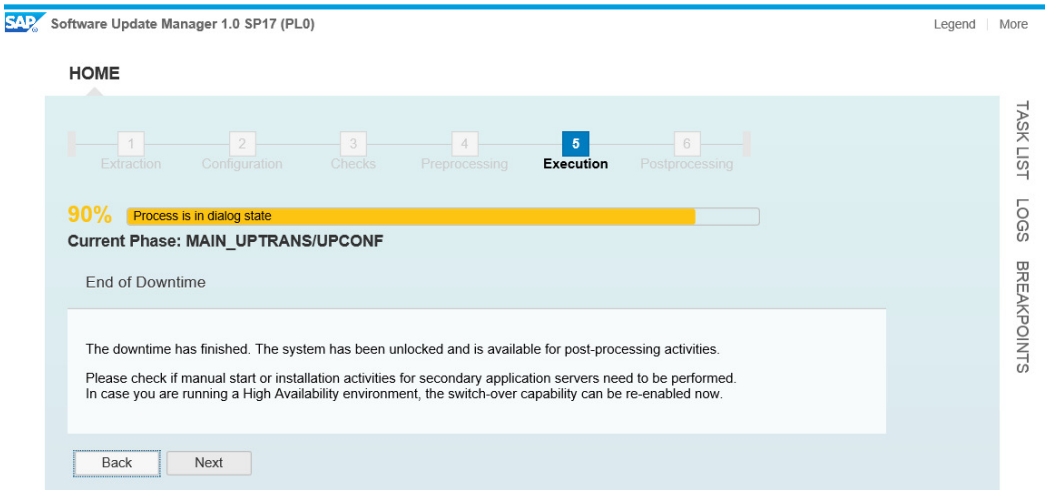
6. Execution:

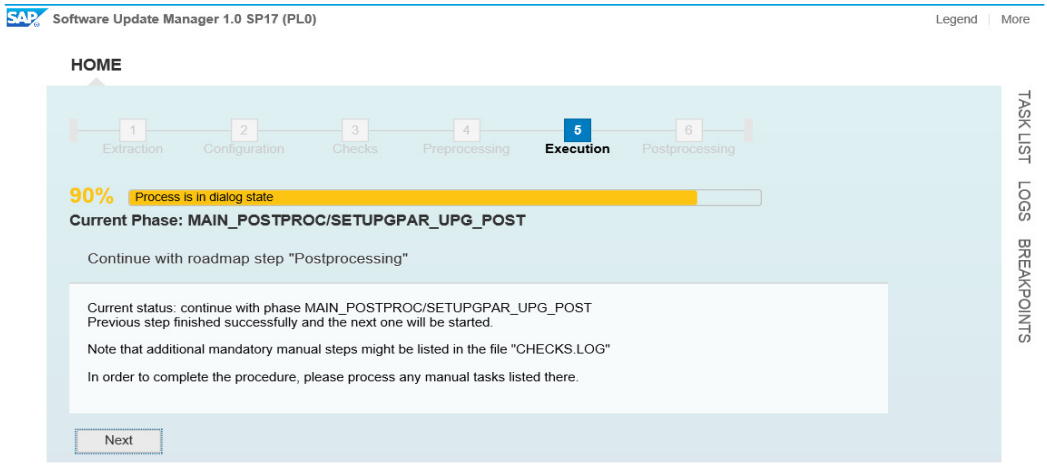
Sum Tool Downtime is called as execution in EHPi this is called as downtime but in SUM this is called as execution

>Merging of shadow and Real Instance.
>System upgrade.
>ICNV.
>Table conversion.

This is the time where the SYSTEM has to be Down and Switching between the repository takes place.





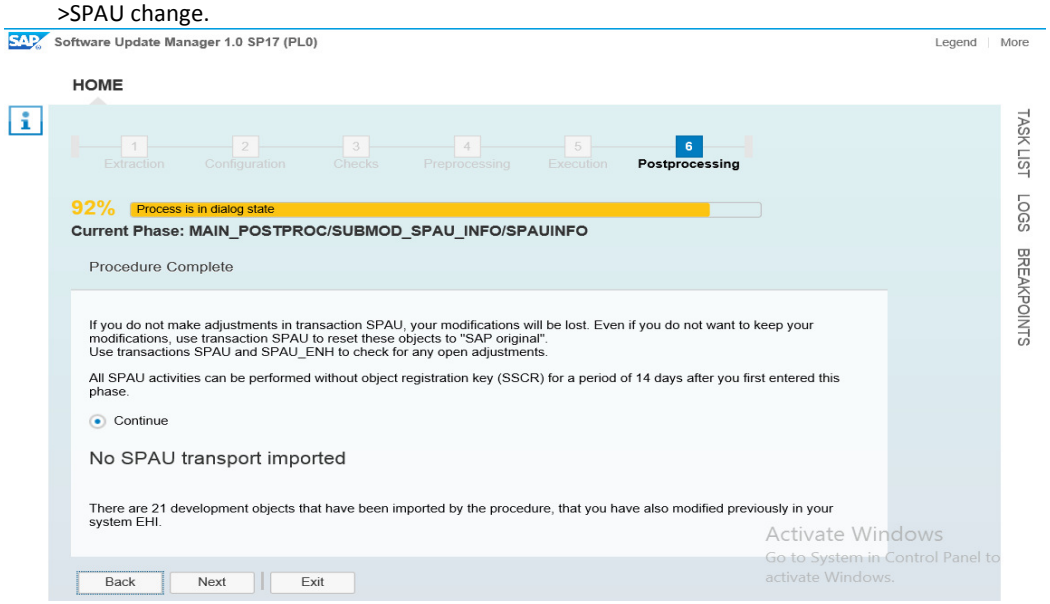


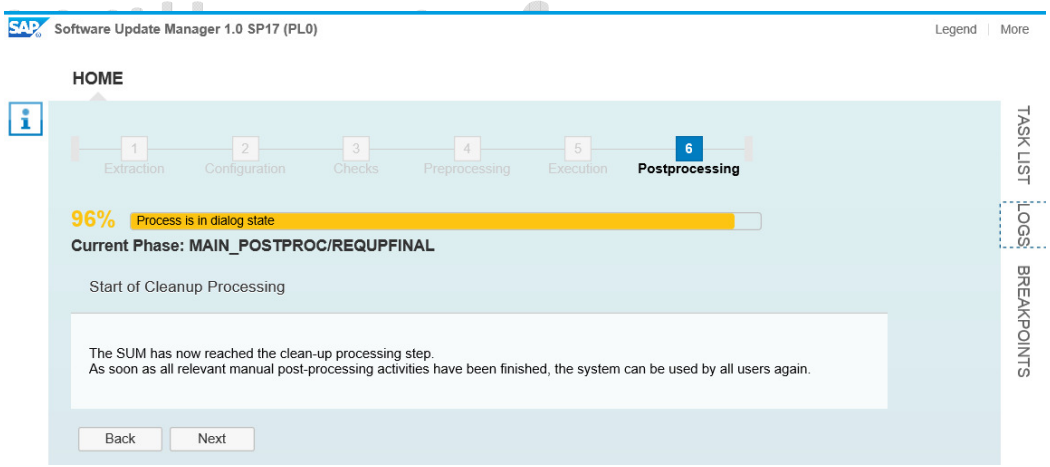
> EXECUTION phase Completed NEXT to continue with roadmap phase POSTPROCESSING.

7-Post Processing:

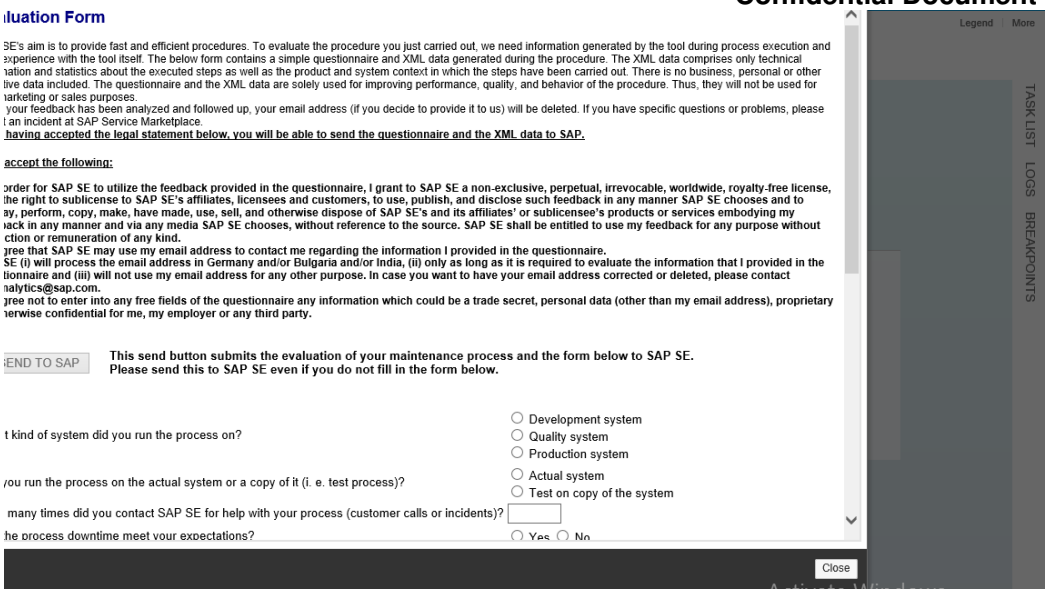
This is post processing step of SUM just after downtime.

>SPAU change.

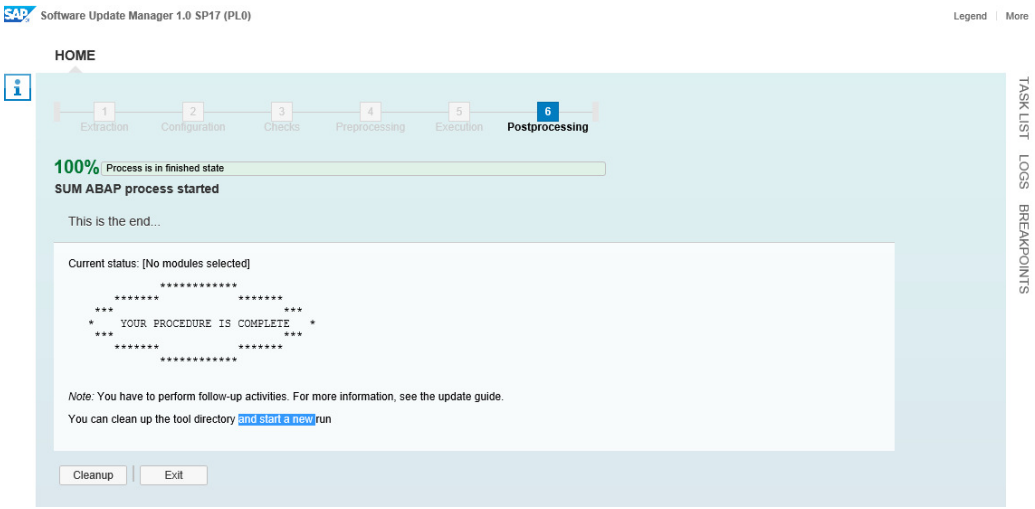




>Next.



> Summary : Final confirmation and feedback about sap upgrade



.

Related Content:

www.help.sap.com

www.sdn.sap.com/irj/sdn/index.

Disclaimer and Liability Notice:

WILLSYS will not be held liable for any damages caused by using or misusing the information, code or methods suggested in this document, and anyone using these methods does so at his/her own risk.

WILLSYS offers no guarantees and assumes no responsibility or liability of any type with respect to the content of this technical article or code sample, including any liability resulting from incompatibility between the content within this document and the materials and services offered by WILLSYS. You agree that you will not hold, or seek to hold, WILLSYS responsible or liable with respect to the content of this document.

Willsys Infosystems