

## **BI 7.0 UPGRADE** *Documentation*

### [Required Patch Downloads](#)

1. Latest SAPup Patch
2. Latest Correction Fix buffer
3. Latest Kernel 700 tp & R3trans

### [Notes to be refered before Upgrade](#)

- Note 905029 – Add. Info : Upgrade to SAP NW 2004s Support Release 1 ABAP
- Note 819655 – Add. Info : Upgrade to SAP NW 2004s ABAP Oracle
- Note 813658 – Repairs For upgrade to SAP NW 2004s AS ABAP
- Note 821032 – Corrections For SAPup for NW 2004s AS ABAP

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~~Note 906789 – Consulting: Upgrade to 7.X BW - NetWeaver 2004 S~~

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Note 914536 – P7:Upgrade- Table RSTSODS filled with NULL values

Note 832712 – BW- Migration of Web items from 3.x to 7.0

Note 832713 – Migration of Web templates from BW 3.x to Netweaver 2004s

Note 861890 – ODS tables disappear during the upgrade

Note 836517 – Oracle database 10g- Preparation for SAP-upgrade

Note 558197 – Upgrade hangs in Parconv\_upg, Xpras\_upg,  
Shadow\_Import\_UPG2

Note 762426 – Long Runtimes in TABSPC\_PREP, CNV\_LIST, DYNSPCAA

## Required CD's / DVDs Patch Downloads

1. SAP Upgrade Master DVD Number 51031683
2. SAP NETWEAVER 2004S SR1 Kernel 7.00 Number 51031713
3. SAP Upgrade Export DVD Number 51031691
4. SAP Language DVD Number 51031692
5. PI\_BASIS 2006\_1\_700 Number 51032426
6. mySAP Business Suite 2005 SR1 Installation Master for: SAP NetWeaver 2004s SR1 Number 51031797
7. Business Intelligence Content Add-On Vers. 3 Number 51031606
8. Java based Software Components Number 51031693
9. SAP ERP 2005 ERP Components DVD Number 51031463
10. ST-PI Supplement upgrade add-on
11. All the DVD's are copied to /bidump

## Required SOLMAN Key for Upgrade

1. Login into Solution manager
2. Start TCODE SMSY
3. Create system with your SID
4. Generate a Solman key
  - a. Input the Instance number
  - b. Hostname
  - c. SID
5. Record the key, You need to use this in prepare phase SOLMAN\_CHK

## Preparation Steps at OS Level

1. Set the following Parameter as given below  
LD\_LIBRARY\_PATH=/usr/sap/SID/SYS/exe/run:/oracle/client/10x\_64/instantclient  
ORACLE\_HOME=/oracle/SID/920\_64

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~~ORA\_NLS33=/oracle/client/92x\_64/ocommon/nls/admin/data~~

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PATH=/oracle/SID/920\_64/bin:/usr/sap/SID/SYS/exe/run:/usr/bin:/usr/ccs/bin:/usr/ucb

DIR\_LIBRARY=/usr/sap/SID/SYS/exe/run

2. Create the upgrade directory
  - a. Login as root
  - b. Cd /usr/sap
  - c. Mkdir put
  - d. Cd put
  - e. Chown SIDadm .
  - f. Chgrp sapsys .
  - g. Chmod 775 .
  - h. Cd ..
  - i. Chmod 777 put
3. Add the Shadow instance port into /etc/services
  - a. Cd /etc
  - b. Cd inet
  - c. Chmod 777 services
  - d. vi services
  - e. Add the following lines
    - i. sapmsSID 3610/tcp
    - ii. sapdp10 3210/tcp

## **Preparation Steps at Database Level**

1. Rename the system user
  - a. Login as oraSID
  - b. Sqlplus /nolog
  - c. Connect / as sysdba
  - d. Alter user system identified by manager;
2. Apply the note recommendation 558197
  - a. Download the script from sapnet as per the note
  - b. Login as oraSID
  - c. Sqlplus "/ as sysdba" @dba\_ind\_columns\_sap.sql
3. Apply the note recommendation 762426
  - a. Create table temp\_useg tablespace PSAPSID as (select \* from user\_segments);
  - b. Create table temp\_ulobs tablespace PSAPSID as (select \* from use\_lobs);
  - c. Create index temp\_useg\_0 on temp\_useg (segment\_name) tablespace PSAPSID;

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- ~~d. Create index temp\_ulobs\_1 on temp\_lobs (tablename,segment\_name) tablespace PSAPSID;~~
  - e. Analyze table temp\_useg compute statistics;
  - f. Analyze table temp\_ulobs compute statistics;
  - g. Create synonym user\_segments for temp\_useg;
  - h. Create synonym user\_lobs for temp\_lobs;
4. Make sure that the Orapatch 6033289 is applied
- a. Login oraSID user
  - b. Cd /oracle/SID/102\_64/OPatch
  - c. ./opatch lsinventory
  - d. This list the complete patch list installed.
5. Check the consistency of the table TADIR
- a. Drop the primary index of TADIR , TADIR~0
  - b. Login as oraSID
  - c. Sqlplus sapSID/sap
  - d. Drop index "TADIR~0"
  - e. CREATE UNIQUE INDEX "TADIR~0" ON "TADIR" ("PGMID", "OBJECT", OBJ\_NAME") PCTFREE 10 TABLESPACE PSAPSID STORAGE (INITIAL 000004592 K NEXT 0000004592 K MINEXTENTS 0000000001 MAXEXTENTS UNLIMITED PCTINCREASE 0000 FREELISTS 001)
6. Truncate the tables TBTCO and TBTCP
- a. Login as oraSID
  - b. Sqlplus sapSID/sap
  - c. Truncate table tbtcp;
  - d. Truncate table tbtco;
  - e. Analyze table tbtcp compute statistics
  - f. Analyze table tbtco compute statistics
7. Create New tablespace for the target release
- a. Login as oraSID
  - b. cd /oracle/SID/sapdata6
  - c. mkdir SID700
  - d. Create tablespace PSAPSID700 datafile  
'/oracle/SID/sapdata6/SID700/SID700\_data1' size 8000M;
8. Extend the existing tablespace PSAPSID

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- a. Login as oraSID
  - b. cd /oracle/SID/sapdata6
  - c. mkdir SID\_20
  - d. alter tablespace PSAPSID add datafile '/oracle/SID/sapdata6/SID\_20/SID.data20'  
size 20480M autoextend off;
  - e. alter tablespace PSAPSID add datafile '/oracle/SID/sapdata6/SID\_21/SID.data20'  
size 10240M autoextend off;
9. Increase the number of process parameter
- a. Login as oraSID
  - b. sqlplus /nolog
  - c. connect / as sysdba
  - d. alter system set processes = 150 scope = spfile;
10. Switch off the archive log
- a. Login as oraSID
  - b. Sqlplus /nolog
  - c. Connect / as sysdba
  - d. Shutdown immediate
  - e. Startup mount
  - f. Alter database noarchivelog;
  - g. Alter database open;

## [Preparation Steps at SAP Level](#)

1. Solve the inconsistency created by the table truncate of TBTCP and TBTCP
  - a. Login in client 000 as ddic user
  - b. Execute tcode SM65
  - c. Select Extras -> Additional Test
  - d. Select all check boxes and remove the inconsistency.
2. Delete the STMS configuration and reconfigure as standalone domain
3. Repair Inconsistent Infoobjects
  - a. Login to the active client of BW
  - b. Tcode : Rsd1
  - c. Choose Extras -> Repair Infoobjects
  - d. Run the option first in display mode and check.
  - e. Run again in Repair mode , Which corrects all inconsistent objects.
  - f. Exit the transaction and start the transaction again.

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- ~~g. Run again in Display mode. Check that there is no warnings or Errors.~~
4. Apply the note 861890 using snote.
  5. Execute tcode RSMDCNVEXIT.
    - a. Check for the current status.
    - b. If the status is in *"No Check Yet/ Inconsistent Values Present"*
    - c. Execute the report and correct the alpha conversion
  6. Check for Pending Conversions
    - a. Login in BW active client
    - b. Se14 -> Dbrequests -> Terminated
    - c. If any terminated conversions, complete the conversion.
    - d. Check for the Invalid tables SE14 -> Extras -> Invalid Temp Table
    - e. In any delete the tables.
  7. Process Flow on the Central Instance for Deinstall the J2ee Engine
    - a. Log on to the ABAP part of the SAP Web AS 6.20 ABAP+J2EE system.
    - b. Stop the J2EE Engine
      - i. Call transaction SMICM.
      - ii. Choose "Administration--> J2EE Instance (local)--> Send Hard Shutdown"
    - c. Delete the following file systems:
      - i. /usr/sap/<SAPSID>/DVEBMGS<instance\_number>/j2ee
      - ii. /usr/sap/<SAPSID>/DVEBMGS<instance\_number>/SDM
    - d. Edit the instance profile <SAPSID>\_DVEBMGS<instance\_number>\_<host> to change entry rdisp/j2ee\_start = 1' to rdisp/j2ee\_start = 0'.
  8. Restart the SAP Web AS 6.20 system.
  9. Solve the inconsistency reported by the previous upgrade by reference to the CHECK.LOG
    - a. Activate the inconsistent infoobjects
    - b. Activate the Non activated data from the ODS
    - c. Activate the Non Activated Infocube & Aggregates

## Start Prepare Phase

1. Start prepare process
  - a. Login as root user
  - b. su – SIDadm
  - c. Cd /bidump/umdv
  - d. ./PREPARE
  - e. This extracts the prepare files to /usr/sap/put
  - f. When it prompts for the Upgrade mode , Type "SCROLL"

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- ~~g. This completes the binary extraction for the upgrade directory.~~
  - h. In the next prompt exit the prepare.
2. Upgrade the Upgrade tool SAPup extracted from DVD
    - a. Login as SIDadm
    - b. Cd /usr/sap/put/bin
    - c. mv SAPup SAPup.old
    - d. Download the latest SAPup from Sapnet and extract to /usr/sap/put/bin
    - e. Copy the Correction Instructions into the /usr/sap/put
  3. Restart the prepare phase
    - a. Login as SIDadm
    - b. Cd /usr/sap/put/bin
    - c. ./PREPARE
    - d. Continue with SCROLL option.
  4. When you are asked to input the mount points enter the following
    - a. /bidump/kernel
    - b. /bidump/lang
    - c. /bidump/uexp
  5. In Phase INITPUT\_PRE, The following input needs to be given

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```
Confirm the name of your SAP system: [BD1]
SAP SYSTEM ID      = BD1
The hostname of your central SAP server: [P046XPPPCO]
SAP SYSTEM HOST    = P046XPPPCO
Enter the SAP instance number: [00]
INSTANCE NUMBER    = 00
The path to the SAP kernel: [/usr/sap/BD1/SYS/exe/run]
KERNEL PATH        = /usr/sap/BD1/SYS/exe/run
The system identifier of your database: [BD1]
DATABASE ID        = BD1
The hostname of your database server: [P046XPPPCO]
DATABASE HOST      = P046XPPPCO
Enter the following passwords:
The password for ORACLE user "SYSTEM":
  (may be MANAGER) [] (Reset the password, before this step)
SYSTEM PASSWORD    = manager
Verification of the password for ORACLE user "SYSTEM": []
SYSTEM PASSWORD    = manager
Supply the following information:
The password for SAP user DDIC in client 000
  (may be 19920706): [] (Reset the password, before this step)
DDIC PASSWORD      = support
Verify password for SAP user DDIC: []
DDIC PASSWORD      = support

The hostname of your batch server: [P046XPPPCO]
BATCH HOST         = P046XPPPCO
Supply the following information:
The maximum number of parallel processes during uptime: [1]
MAXIMUM UPTIME PROCESSES = 4
The number of parallel import processes: [3]
R3TRANS PROCESSES = 3
The maximum profile value of "bufreftime": [120]
MAXIMUM SYNC TIME = 120
The path to the EPS root directory:
  (EPS inbox is in <EPS_ROOT>/in) [/usr/sap/trans/EPS]
EPS ROOT           = /usr/sap/trans/EPS
```

6. In Phase DBCHK\_PRE, The input the database type

```
SAPup> Is there more than one system running in this database?
      (MCOB: Multiple components in one database)

      - "no"
      - "yes"

Enter one of these options [no] := no
```

7. In Phase SOLMAN\_CHK, We need to input the SOLMAN Key generated

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SAPup message

```
SAPup> The SAP Solution Manager Key is required for the upgrade.  
Further informations can be found in the upgrade guide,  
the SAP Service Marketplace and SAP note 805390!
```

- "continue"
- "cancel"

```
Enter one of these options [continue] :=
```

```
SAP Solution Manager Key = 16ACB918EC
```

8. In Phase UCMIG\_DECISION, Decision of Unicode conversion.

SAPup message

```
SAPup> Your system is configured as a non-Unicode SCP (Single Code  
Page) configuration.
```

```
  If you plan to perform a Unicode Conversion after the upgrade,  
you may choose to perform a combined  
  Upgrade and Unicode Conversion.
```

```
  In this case, several of the migration preparation steps can be  
done already on the start release  
  or on the upgrade shadow system.
```

```
  For further information, please refer to OSS note 928729.
```

```
  Do you want to perform a combined Upgrade and Unicode  
Conversion?
```

- "Yes"
- "No"

```
Enter one of these options [No] := No
```

9. In starting of the IMPORT Phase, REQIMPORT prepare wait for your confirmation to start import.

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SAPup message

The PREPARE module Import will be started now.

During this module programs, structures, and table entries required by PREPARE are imported (the so-called "tool import").

Note: This can cause a loss of performance in R/3

In rare cases, a concurrent transport via the transport directory may disturb the tool import. Please avoid any concurrent import during this PREPARE module.

- "continue"
- "cancel"

Enter one of these options [continue] := **continue**

10. In Phase UPLOAD\_REQUEST, I prepare ask for the ADD-ON CD include

SAPup message

SAPup> If you intend to include Add-on Upgrades or Support Packages into the upgrade, you can now make available the needed CDs and packages.  
All fitting CDs and packages will then be chosen as default selection in the phase IS\_SELECT for the Add-on Packages and CDs and in the phase BIND\_PATCH for the Support Packages

SAPup> Do you want to add (further) Add-on CDs?

- "Yes"
- "No"

Enter one of these options [Yes] := **no**

SAPup message

SAPup> Do you want to search for new packages in directory "/usr/sap/trans/EPS/in"?

- "Search"
- "Skip"

Enter one of these options [Search] := **Search**

11. In IS\_SELECT phase , prepare ask for the Add-on Decisions

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```
>> 10:31:55  PREPARE: START OF PHASE IS_SELECT

Product update and media decision overview:
Decide about update type and the Add On media kind.

Select the Add-on you want to make or change a decision:
Select no product, if you are finished.

      Add-on Id      Start Rel      Dest Rel      Status      Note
01)      PI_BASIS      2003_1_620      2005_1_700      INST/UPG WITH STD CD  570810
02) X  FINBASIS      1.0B           ?             UNDECIDED      852448
03) X  SEM-BW       3.1B           ?             UNDECIDED      852448
04) X  ST-PI        003C_620       ?             UNDECIDED      769519
05) X  BI_CONT      330            ?             UNDECIDED      632429

Enter a number to change selection or "ok":
```

12. Add the following Addon Components to the upgrade. Extract the packages to /usr/sap/trans/EPS/in

- a. FINBASIS 600 : KIEQ07U.SAR (From DVD 51031463)
- b. SEM 600 : KIEN11U.SAR (From DVD 51031463)
- c. ST-PI : KITLQIG.CAR (Downloaded from SAPnet)
- d. BI\_CONT 703 : KIBIIUH.SAR (From DVD 51031606)

13. Extract the Support Packages and SPAM 700

- a. Extract the Support packages FINBASIS SP1 & SEM SP1
  - i. FINBASIS 600 SP1 : K-60001INFINBASIS.CAR
  - ii. SEM 600 SP1 : KGS6001.CAR
  - iii. SPAM 700 : KD70023.CAR

14. Mark all the add-on by typing the number in front of the add-on. Once you entered the number and press

enter, you can see "X" mark in front of that.

15. After Marking all the add-on's type "ok" to proceed further.

16. Select the Options "UPG SAINT" for all the addon's.

17. The final out should be as below.

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Add-on Id	Start Rel	Dest Rel	Status	Note	
01)	PI_BASIS	2003_1_620	2005_1_700	INST/UPG WITH STD CD	570810
02)	FINBASIS	1.0B	600	UPG WITH SAINT PACK	852448
03)	SEM-BW	3.1B	600	UPG WITH SAINT PACK	852448
04)	ST-PI	003C_620	2005_1_700	UPG WITH SAINT PACK	769519
05)	BI_CONT	330	703	UPG WITH SAINT PACK	632429
06)	*** Reset all decisions to default ***				

18. In Phase BIND\_PATCH, Need to provide updates regarding the support packages

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```
SAPup message

SAPup> Do you want to search for new packages in directory
"/usr/sap/trans/EPS/in" first?

This scan may run for some minutes. You can skip the inbox scan,
if the package descriptions have been uploaded already to this system.

- "Search"
- "Skip"

Enter one of these options [Search] := Search
uploading data ...

SAPup message

SAPup> According to the uploaded packages the queue calculator
could generate a valid support package queue.

Do you want to take over the calculated package levels
as default selection?

- "Yes"
- "No"
- "Show Selection"

Enter one of these options [Yes] := Yes

SAPup message

SAPup> Note: Choose 'NONE' as upper package level to explicitly
reset a (default) selection.

- "continue"
- "cancel"

Enter one of these options [continue] := Continue
```

19. Now you get display of each support package for your input. Press enter if you don't want to import. If you want to input, type the SP level and enter. Input the support packages to imported for FINBASIS & SEM as 1. So the it includes the SP of FINBASIS and SEM.

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Component	Support Package Level			select
	min	equi	current	
SAP_ABA	<none>	<none>	0006	
SAP_BASIS	<none>	<none>	0006	
PI_BASIS	<none>	<none>	0006	
ST-PI	<none>	<none>	<none>	
SAP_BW	<none>	<none>	0006	
FINBASIS	0001	<none>	<none>	1
SEM-BW	<none>	<none>	<none>	1
BI_CONT	<none>	<none>	<none>	

Extracting 2 package(s) ...

(This may take some time)

**SAPup> Do you want to include a SPAM Update for release 700?**  
(We recommend to include the newest available SPAM Update.)

- "Yes"
- "No"

Enter one of these options [Yes] := Yes

SAPup message

**SAPup> The following SPAM Update package has been found:**

Request: SAPKD70023  
Version: 0023  
Text: SPAM/SAINT Update - Version 700/0023

You can

- include this SPAM Update
- search for a newer SPAM Update (in directory  
"/usr/sap/trans/EPS/in")
- skip the inclusion
- "Include"
- "Search"
- "Skip"

Enter one of these options [Include] := Include

extracting data ...

SAPup message

**SAPup> Do you want to include a Single Change Request?**

- "No"
- "Yes"

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Enter one of these options [No] := No

SAPup message

SAPup> The following packages will be included:

Component FINBASIS Support Package (FINBASIS) 1

Component SEM-BW Support Package (SEM-BW) 1

SAPup> The following SPAM Update for release 700 will be included:

SAPKD70023

The total size of all data files is 39832 KBytes.

- "Confirm"
- "Change Selection"

20. In Phase ADJUSTPRP, It checks for the previous upgrade's SPDD & SPAU recorded UMODAUTO.LST

File.

SAPup message

SAPup> For automatically maintaining your modifications in your system during the upgrade transport requests from earlier upgrades are searched in file umodauto.lst in directory /usr/sap/trans/bin. The file could not be read. There are several reasons why this may be correct, e.g. "this is your first upgrade" or "your system is not modified".

Did you expect a list of transports being found?

- "no"
- "yes"

Enter one of these options [no] := No

21. In Phase INITSHD, Prepare asks for Shadow instance ports

SAPup message

SAPup> INFO: During the upgrade a temporary instance is installed to perform the modification adjustment and activation. For the installation of the shadow system instance, you have to supply unused instance numbers and free port numbers.

- "continue"
- "cancel"

Enter one of these options [continue] := Continue

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## 22. ~~When the shadow instance creation phase (Installation)~~

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- a. Shadow instance is 10, So the following ports will be used
  - i. 1310,1210,3910 & 4010

23. In Phase SHDINST\_CPY, Confirm that upgrade not have Application server for Shadow instance,

```
SAPup message

SAPup> You have the alternative to use the profiles
        from a test upgrade with identical environment
        for the so-called shadow instance. If you choose
        this alternative the profiles will be taken from
        the subdirectory <save>.
        Please also refer to the upgrade manual for more details!
        Do you want to take the profiles?

        - "no"
        - "yes"

Enter one of these options [no] := No
```

**24. If you have a problem in shadow instance creation, If prepare steps and informs to check the**

CRSHDUSR.LOG log file, Then shadow user is not created by the upgrade. Create the user as given below.

- a. Login as oraSID
- b. Cd /usr/sap/put/bin
- c. sqlplus system/manager@SID @crshdusr.sql SAPSID

**25. Afer the execution of the script, Input as "No" in prepare step and restart the prepare.**

**26. In Phase SAVE\_VAR\_CHK, Give "Yes" to backup the user variants.**

**27. Continue the Prepare ,to complete the prepare steps.**

**--- End of the Document ---**