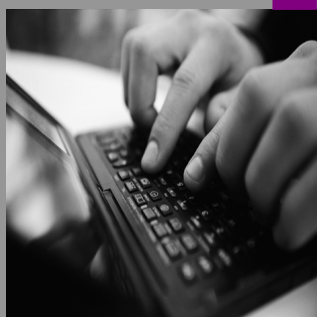

How-to Guide
SAP NetWeaver '04

How to … SAP BW 3.5 upgrade preparation and post-upgrade checklist

Version 1.10 – November 2004

Applicable Releases:
SAP NetWeaver '04
(BW 3.5)

THE BEST-RUN BUSINESSES RUN SAP

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1 Scenario

You are planning to upgrade your SAP BW system to the SAP NetWeaver '04 release of the SAP BW component (SAP BW 3.5 and its content releases SAP BI 3.5.x Content). You require a checklist to help you to plan your upgrade activities.

- You have an existing SAP BW system that is currently in use.
  I.e. A SAP BW Client is created and actively used by SAP BW administrators.
- Your SAP BW system is a release that is currently in maintenance;
  - These SAP BW releases at time of writing are: SAP BW 2.0B, 2.1C, SAP BW 3.0B, SAP BW 3.1 Content, SAP BI 3.2 Content, or SAP BI 3.3 Content.
  - Maintenance dates can be viewed on the SAP Service Marketplace alias BW (http://service.sap.com/BW) in the release's respective sub section.

2 Introduction

Background

This is a collection of common tasks recommended to be executed in relation to an upgrade to SAP BW 3.5 (including SAP BI 3.5.x Content releases).

The 'original' SAP BW releases covered are SAP BW 2.0B, 2.1C, SAP BW 3.0B, SAP BW 3.1 Content, SAP BI 3.2 Content, or SAP BI 3.3 Content.

SAP BW 3.5 is considered the 'target release'.

It should be noted that SAP BW 3.5 Content and SAP BW 3.x are identical with regard to functionality that was delivered in the SAP BW 3.0B. As in the past with the SAP BW 3.0B and SAP BW 3.1 Content releases, there is the equivalent support package/support package stack level. This is where common corrections are applied to all releases so SAP notes relating to SAP BW 3.0B, are in most cases, relevant to SAP BW 3.1 Content releases and SAP BW 3.5.

Obviously this is not the case for new functionality delivered in SAP BW 3.5 where corrections are only available for the SAP BW 3.5 release.

Equivalent support package levels is automatically determined during the upgrade's PREPARE process.

Each correction applied will have its corresponding Support Package/Support Package Stack level identified in the SAP note

Handling of 'add-ons' when upgrading SAP BW

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It is possible that your SAP BW has had one or more add-ons installed on the system. All add-ons must be accounted for during the upgrade. It is currently **not possible** to remove an add-on during a SAP BW upgrade (even though the option may be available in the upgrade tools). Examples of such add-ons are SAP BI, ST-PI, SAP SEM, WP-PI, etc.

Some add-ons are automatically managed by the upgrade:

BI Content [BI_Cont]: If you start with release SAP BW 3.1 Content or higher, BI Content is already installed in your system. The upgrade to SAP BW 3.5 should include the latest BI Content release (SAP BI 3.5.x) CD and the latest BI_Cont support packages bound in.

Plug-in [PI_BASIS]: If you start with release SAP BW 3.x or higher, PI_Basis is already installed in your system. PI_Basis is tied to the underlying SAP Web AS release (release 6.20 for SAP BW systems < SAP BW 3.5). The upgrade will automatically upgrade PI_Basis to the version for SAP Web AS 6.40. It is recommended to bind in the latest Support Packages into the upgrade.

EP Plug-in [WP-PI]: The SAP Enterprise Portal/Workplace plug-in may have been installed in your SAP BW system. Before the upgrade starts, ensure that the version is the 6.00 version (version 5.00 is not longer supported). During the upgrade the WP-PI plug-in is automatically deleted. In future all the WP-PI features/functions are delivered in the PI_BASIS component.

For all other add-ons please consult the applicable SAP note or upgrade guide and follow the instruction detailed in the specific add-on notes.

Some specifics about Major Add-on upgrades:
If you are upgrading a SAP BW system where major non-SAP BW add-ons have been installed (e.g. SAP SEM), you should view the Add-on specific SAP notes and upgrade guides as the primary guides and the SAP BW actions as secondary.
Example:

- SAP SEM upgrade guide informs you to set the start menu to UG00
- SAP BW Upgrade guide informs you to set the start menu to RS00

Result: Set the start menu to UG00

Source system Plug-in releases and the impact to the SAP BW upgrade:

SAP BW 3.5 supports extraction from all releases of the Source system plug-ins currently in maintenance. For more information on the supported releases, please consult the Plug-in page on the SAP Service Marketplace (http://service.sap.com/R3-PLUG-IN).

SAP BI Content releases may have specific plug-in requirements for new content DataSources/Extractors. For example: SAP BI Content 3.5.2 requires PI 2004.1.

About this Document:

It should be noted that a number of the tasks in the document are duplicated in other SAP materials (Upgrade guides, How-To papers, White papers, etc) and SAP notes.

This document is not intended to replace standard SAP documentation, but is provided as a complimentary checklist to these documents.

Additionally, this checklist should not be considered exhaustive. From time-to-time, additional tasks, updates, and tips may be generated, and it is intended that the primary delivery mechanism of such information be via SAP notes. We intend to routinely compile new content into this document and to re-publish this document on the SAP Service Marketplace. Changes to the document will be recorded in the document version number in the document footer.

Delivery:

This document will continue to be delivered in word format (.doc) to enable you to easily copy and paste tasks into your project plans.

3 Actions that can be executed weeks or months before starting the upgrade process

Task	How-To	Status
Review SAP BW 3.5 feature lists	Review SAP BW 3.5 feature lists for possible inclusion in developments. ❑ Downloadable from the SAP BW homepage http://Service.sap.com/BW -> <SAP BW release> -> Features <SAP BW release> ❑ Note: Some new SAP 3.5 related scenarios and features may require additional software components (e.g. SAP Web AS J2EE, SAP EP 6.0, etc). Please consult the SAP BW 3.5 upgrade note 658992 (note 781633 for SR1 release) and the SAP NetWeaver Cross-NetWeaver installation and upgrade master-guides. ❑ SAP BI Content 3.5.2 includes all the content features of SAP BI 3.3 Content plus new content. Specific Content information is available on the SAP BW homepage http://Service.sap.com/BW -> <SAP BW release> -> <BI Content release>	
Obtain the SAP BW 3.5 upgrade guide	Download the upgrade guide from http://service.sap.com/inst-guides -> SAP NetWeaver -> Upgrade -> SAP BW	
Review SAP BW release specific information	Read the information specific to your target SAP BW release on the SAP BW homepage http://Service.sap.com/BW -> SAP BW 3.5	
Review all upgrade SAP notes	In addition to the upgrade guide, check, download, and review all SAP notes for your upgrade ❑ SAP BW 3.5 Upgrade notes ❑ SAP BI Content 3.5.x upgrade notes ❑ SAP Web Application Server 6.40 upgrade notes ❑ OS and DB specific upgrade notes ❑ SAP BW Add-on upgrade notes (e.g. SAP SEM, ST-PI, etc) ❑ Plug-In upgrade SAP notes ❑ Other notes identified in above notes and/or upgrade	

	guides.	
Check DB and OS requirements for the target SAP BW release	Check DB version/patch level and OS version/patch level required for upgrade ❑ First check the most current information from the SAP BW homepage http://Service.sap.com/BW -> <SAP BW release> -> Availability ❑ Additionally, the "Platforms" link will take you to the main DB/OS page for SAP BW 3.5 and SAP Web AS 6.40. ❑ Note: In some cases there are differing requirements for SAP BW 3.0B/SAP BW 3.1 Content and SAP BW 3.5	
Check SAP BW Add-on upgrade requirements	Do you have SAP BW add-ons installed that require additional handling (e.g. SAP SEM, Enterprise Portal Plug-in, etc)? ❑ SAP SEM (SAP BW based components) requires SAP SEM 4.0 which is part of the mySAP ERP 2004 suite. ❑ WP-PI release must be at 6.00 before the upgrade begins. As mentioned before this add-on is merged with PI_Basis after the upgrade. ❑ For the ST-PI add-on follow SAP note 539977 and 606041. ❑ And so on...	
Check SAP BW upgrade requirements	❑ Minimum Support Package and kernel levels for upgrade ❑ SAP BW Frontend requirements for new SAPGUI, SAP BW BEx Frontend and SAP BW Web applications (formerly web reports in SAP BW 2.x) o The SAP BW 3.5 Business Explorer Frontend is backwardly compatible with SAP BW 3.x and SAP BW 2.x systems. ❑ Source system Plug-In requirements	
Check compatibility requirements with 3rd party software	❑ 3rd Party Reporting tools (example: Crystal) ❑ ETL Tools (example: Ascential, DataStage, etc) ❑ Scheduling tools (example. Control-M, Maestro, etc) ❑ Monitoring tools (example: HP OpenView, Patrol, etc) ❑ Other OS or DB related tools	
Check new component requirements for SAP	❑ If SAP BW web reports were developed in SAP BW	

BW 3.5	2.x, a windows version of IGS 6.40 (Internet Graphics Service) is required for conversion and future rendering of web graphics (i.e. Charts and GIS Maps). The IGS chart migration will also be required **after** the SAP BW web report conversion. ❑ If you used or activated any SAP BW Web Applications in SAP BW 3.x, or if you have used charts in SAP BW 2.x web reports, you will need a windows version of IGS 6.40 (Internet Graphics Service) to execute the IGS chart migration after the upgrade. ❑ If ESRI GIS software is in use, a different version of ESRI software maybe required for SAP BW 3.5. (ArcView 8.2?) Download and complete the ESRI order form from http://service.sap.com/instguides -> SAP Components -> SAP BW 3.1 Content ❑ If the optional "Textual" searching of Metadata, Master and Transactional Data documents functionality is required, the TREX (Text REtrieval and indeXing) engine should be installed. ❑ If you plan to use Information Broadcasting, please review the requirement for additional infrastructure components such as EP, KMC, Workbook pre-calcaulation service, and Web AS connectivity to your mail servers. Detailed information is available in the SAP NetWeaver '04 master planning guide (http://service.sap.com/instguides -> SAP NetWeaver).	
Test and distribute new SAP BW Frontend	❑ Install and test the new SAP BW 3.5 Frontend (including the new version of SAPGUI for Windows if applicable). ❑ A detailed FAQ on the new SAP BW 3.5 Frontend is available on the SAP service marketplace alias BWFAQ (http://service.sap.com/BWFAQ). ❑ Note: The SAP BW Frontend and SAPGUI are backwardly compatible with previous SAP BW releases. ❑ After successful testing, the new SAPGUI for Windows and SAP BW Frontend can be distributed to the BW teams and end users.	
Alpha Conversion: Ensure that your InfoObject data is consistent from a	Check that you have executed the Alpha Converter tool to check the consistency of your InfoObject definitions and data for InfoObjects that utilize the ALPHA, NUMCV and GJAHR conversion exits.	

"conversion" perspective (Alpha Converter tool)	**This must be executed on all SAP BW 2.0B, SAP BW 2.1C, and all 'new install' SAP BW 3.0B systems (i.e. not previously upgraded to SAP BW 3.0B).** Note: The Alpha conversion is not part of the SAP BW upgrade itself, but the upgrade simply checks to ensure you have successfully executed the check tool. ***SAP BW 2.x customer should execute the check (and conversion) as soon as possible to avoid data inconsistencies.*** The Alpha Conversion tool is executed by Transaction RSMDCNVEXIT Check the system status: ❑ "All Characteristics Have Correct Internal Values": The Alpha converter has been successful executed. The upgrade preparation can continue. ❑ "No Check yet/Inconsistent Internal Vales exist": The Alpha converter check has not been executed. ❑ "Characteristics have Inconsistent Internal Values": The Alpha converter tool check has been executed and data problems have been detected. The InfoObject and data must be processed before the upgrade can be started. For further information on the tools execution and requirements, please consult SAP note 447341.	
Resize your BW system	It is recommended to use the SAP BW upgrade as an exercise to re-size your SAP BW System. This is particularly important if you plan to use new functionality and/or start new rollouts of developments. ❑ Start the resizing process via the SAP provider sizing tool 'Quicksizer'. This is accessible from the SAP Service Marketplace (http://service.sap.com/quicksizer).	
Schedule your SAP upgrade and/or going-live check process	It is recommended that you use one of SAP Safeguarding checks to validate your upgrade process and the SAP BW System itself. It is prudent to schedule these checks at least a month in advance as specific timeslots may already be taken. ❑ More information is available on the safeguarding page of the SAP Service Marketplace: http://service.sap.com/safeguardingupgrade http://service.sap.com/**safeguarding**	
Attend Delta training	Key administrator team members should receive SAP BW solution (application) and Technical (systems) delta training	

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4 Tasks and actions that can be executed weeks ahead of the upgrade

Task	How-To	Status
Upgrade SAP Note updates	Check for newer versions of your SAP notes for the Upgrade. Tip: The SAP service marketplace offers an option to subscribe to OSS notes so you can be notified of changes when you log on.	
Confirm SAP BW support package, kernel and DB/OS configuration	Analyze current Support Package and DB/OS/Kernel configurations in your SAP BW landscape in relation to the SAP BW 3.x upgrade requirements. ❑ Apply necessary support packages, kernel patches, and DB and OS patches to meet upgrade requirements	
Alignment of SAP BW objects within your SAP BW system landscape	Check and, where required, re-align SAP BW Objects and developments in your SAP BW system landscape (Development, Quality Assurance and Production). SAP BW Object differences can impact the quality of testing in the Development and Test environment and can lead to change management issues. ❑ This check is to minimize risk and ensure productive objects are being tested prior to the Production upgrade. Where alignment issues exist and realignment is not possible, alternative testing plans should be devised.	
Confirm all developments are deployed.	Ensure that all SAP BW developments are deployed or they are to be re-developed/tested after the upgrade. ❑ In the DEV system, all SAP BW development transports should be released (i.e. transport created and released) and imported to all downstream systems (i.e. QAS and PRD systems). For SAP BW developments not already collected in the transport collector, a decision must be made: Deploy the developments or wait until the upgrade has completed to deploy. ○ Development to be deployed should be collected, released, and imported into the QAS and PRD systems. ○ Developments that should be deployed after the upgrade should be re-tested/re-developed after the upgrade. ❑ In the QAS or PRD systems, ensure that all SAP BW development transports have been imported prior to the upgrade.	

	❑ Note: it is NOT recommended to import transports created in the original SAP BW release into the newly upgraded SAP BW 3.5 system.	
Implement SAP BW 3.5 Business Explorer Frontend	Install, evaluate, test and distribute the new SAP BW 3.5 Business Explorer Frontend.	
Rollout Preliminary delta training	Develop and deliver preliminary delta training to SAP BW users ❑ SAP BW Administrators ❑ Technical/System Administrators ❑ SAP BW query developers ❑ SAP BW end users ❑ Other associated administrators and users	

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5 Tasks that should be executed before executing the upgrade preparation (PREPARE)

Task	How-To	Status
Download required SAP BW 3.5 support package Stack for inclusion in the upgrade	Determine the equivalent support package level of the source SAP BW release and the target SAP BW release. ❑ There is a minimum requirement that you upgrade to at least the equivalent support package level on the target SAP BW release so that you do not lose functionality, corrections, and data. ❑ It is recommended to upgrade to the latest version of all support packages during the upgrade via the upgrade's support package binding functionality. ❑ SAP BW 3.5 Support Packages are delivered via SAP NetWeaver '04 Support Package stacks (SP-Stacks). It is not recommended to partially apply some of the SP-Stacks' individual support packages. You should apply all of the SP-Stacks support packages at once. For more information on the SP-Stacks and SAP NetWeaver SP-Stacks, please see the SAP service marketplace alias SP-Stacks (http://service.sap.com/sp-stacks) ❑ The following support packages should be download as a minimum: o SAP_BASIS o SAP_ABA o SAP_BW o PI_BASIS 2004_1_640 o BI_CONT 3.5.x (where x is target content release) ❑ You should also review, download, and bind in support packages for all add-on components that are installed on SAP BW and will be upgraded during the SAP BW upgrade (e.g. SEM-BW, ST-PI, etc) ❑ SAP BI Content 3.5.x and SAP BW 3.5 Support package dependency information can be found in SAP note 653814. ❑ Download the target release's support packages from the SAP service marketplace link http://service.sap.com/swdc and unpack them in your system's patch directory (ex. usr/sap/trans/eps/in)	

Apply latest Support Package tool patch	Apply latest SPAM patch before executing PREPARE	
Validate the SAP BW (ABAP) Data Dictionary and the Database Data Dictionary for consistency	Check Database consistency ❑ Transaction DB02: ○ Execute ABAP SAP_UPDATE_DBDIFF and re-execute DB02 check. This gives a truer view of the SAP BW objects in DB02. ○ Check missing database objects (indices, tables, etc) ○ Missing indices may identify erred data loads or process problems Tip: Missing indices on InfoCubes can be restored by RSRV or ABAP SAP_INFOCUBE_INDEXES_REPAIR Note: check for running data loads before executing a repair! ○ Check DDIC/DB consistency ❑ Verify database objects and consistency (e.g. SAPDBA check for offline data files)	
Remove unnecessary SAP BW temporary database objects	Delete all SAP BW temporary database objects: ❑ Execute routine housekeeping ABAP SAP_DROP_TMPTABLES. For more information see SAP note 308533 (2.x) and 449891 (3.x). ❑ This reduces the numbers of database objects that need to be copied during the upgrade. ❑ Note: take care not to delete objects that are in use as this will cause queries, compressions, etc to terminate.	
Validate your SAP BW Objects for correctness prior to your upgrade	Using the SAP BW Analysis Tool (transaction RSRV), perform extensive tests on all important SAP BW Objects to ensure their correctness prior to the upgrade. Note: this test should be repeatable so you can re-validate after the upgrade! ❑ Ensure that any inconsistencies are identified and corrected ❑ RSRV has a number of extensive tests and if all checks are executed will consume a large amount of time. Multiple tests can be performed in parallel. ❑ Tip: Some corrections in development can be deployed to other systems via transport in advance of the next upgrade.	

Ensure DB Statistics are up to date prior to the upgrade	❑ Check DB statistics for all tables. Tables without statistics, especially system tables, can seriously impact upgrade runtimes. ❑ Check DB statistics for missing Indexes for InfoCubes and Aggregates o User transaction RSRV to check	
Check SAP BW Support Package status	Check the status of all support packages (via transaction SPAM) ❑ Ensure the Support Package queue is empty ❑ Confirm all applied Support Packages	
Check all 'Repairs'	Check for unreleased repair transports ❑ Release all unreleased transports In your QAS and PRD system, check if all repair transports have been imported (i.e. systems are aligned) ❑ Import missing repair transports into down stream systems. This will avoid differing message and/or errors during the upgrade.	
Check user DDIC status	❑ Determine user DDIC password in client 000. Hint: Do not have an initial password set for user DDIC. As logging on with DDIC will force you to change it on log on and this will interrupt the upgrade. ❑ Ensure that the DDIC user in client 000 has the correct authorizations (i.e. SAP_ALL).	
Check InfoObject status	❑ Check for revised (modified) InfoObjects that have not been activated. All InfoObjects should be active or saved (not activate): o Check all inactive InfoObjects: Transaction RSD1 (Edit InfoObjects), click on "All InfoObjects" radio button and click the "Display" button. Modified InfoObjects are denoted by yellow triangles! o Determine if revision should be activated or removed. ❑ 'Reorg' or 'Repair' all InfoObjects This checks and repairs any discrepancies in the InfoObject definition and structures. It is common to have obsolete DDIC and table entries for InfoObjects after multiple upgrades and definition changes. These obsolete entries normally do not effect normal SAP BW operations.	

	See SAP Note 458363 and upgrade guide for additional information ○ Transaction RSD1 (Edit InfoObjects), Select “Execute Repair” or “Execute Reorg” Use expert mode for selective executions.	
All ODS data loads must be activated.	❑ Activate all inactivated ODS Object requests. All ODS ‘M’ tables must be emptied prior to the upgrade as a new activate process is implemented ○ Inactivated ODS request can be located via the Admin workbench -> ‘Monitoring” button -> ‘ODS Status Overview”	
All Transfer and Update rules should be active	❑ Check for inactive Update and Transfer Rules ○ All update rules and transfer rules should be active or deleted. ○ Execute ABAP RSUPGRCHECK to locate any inactive Update and Transfer Rules. See SAP note 449160.	
All InfoCubes should be active	❑ Check for inactive InfoCubes and Aggregates (Aggregates are InfoCubes too!) ○ All InfoCubes should be activated or deleted. ○ Execute ABAP RSUPGRCHECK to locate any inactive InfoCubes. See SAP note 449160.	
All Web Report objects should be consistent prior the upgrade.	❑ Check the consistency of your SAP BW web objects (web reports, web templates, URLs, roles, etc). All objects should be consistent prior to web object conversion after the upgrade. It is recommended to ensure consistency before the upgrade. ○ For Original release SAP BW 3.x: A SAP BW web reporting objects check can be executed via a new check in RSRV. This is provided via a SAP BW support package. Please see SAP note 484519 for details. ○ For Original release SAP BW 2.x: More detailed information on executing the check is provided in the conversion how-to paper: located at http://Service.sap.com/BW -> Services & implementation -> How To …. Guides -> Guide List SAP BW 3.0 -> “How to…Covert Web Object from SAP BW 2.0B/2.1C to SAP BW 3.0	

	Note: This how-to paper is applicable to SAP BW 3.5! o For Original release SAP BW 2.x: Also SAP note 484878 includes information on Mime pre-upgrade check steps and conversion steps.	
Backup your system before starting PREPARE	Before execution PREPARE, perform a full database backup (including File system). Ensure you can recover to the point in time before PREPARE was executed.	
Additional tasks	Follow any additional instructions detailed in the upgrade guide and in SAP Notes	

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6 Tasks that should be executed after completing the upgrade preparation (PREPARE) and prior to executing the upgrade (R3UP):

Task	How-To	Status
Address any instructions/errors generated by PREPARE	❑ Address any issues listed in log file Checks.log generated by PREPARE. o Repeat PREPARE until all checks are successful.	
Complete any Logistic V3 data extractions and suspend V3 collection processes	❑ Extract and empty Logistics V3 extractor queues on SAP R/3 source systems. o The V3 extraction delta queues must be emptied prior to the upgrade to avoid any possible data loss. V3 collector jobs should be suspended for the duration of the upgrade. They can be rescheduled after re-activation of the source systems upon completion of the upgrade. o See SAP Notes 506694 and 658992 for more details. ❑ Note: If you perform any data loads after executing PREPARE, re-check the status of all delta queues in SAP BW and the source systems(s).	
Complete any data mart data extractions and suspend any data mart extractors	❑ Load and Empty all Data mart Delta Queues in SAP BW. (e.g. for all export DataSources) o The SAP BW Service SAPI, which is used for internal and 'BW to BW' data mart extraction, is upgraded during the SAP BW upgrade. Therefore, the delta queues must be emptied prior to the upgrade to avoid any possibility of data loss. o See SAP Note 506694 and 658992 for more details. ❑ Note: If you perform any data loads after executing PREPARE, re-check the status of all delta queues in SAP BW and the source systems(s).	
Check that your customer defined data class definitions conform to SAP standards	❑ Check all customer created Data classes used by SAP BW Objects (i.e. InfoCubes, ODS Objects, Aggregates, InfoObjects, and PSAs) to ensure they conform to SAP standards. o Check your data class definitions as detailed in SAP Notes 46272 and 500252.	

	○ Incorrect data classes could create activation errors during the upgrade.	
Remove unnecessary SAP BW temporary database objects	Delete all SAP BW temporary database objects: ❑ Execute routine housekeeping ABAP SAP_DROP_TMPTABLES. For more information see SAP note 308533 (2.x) and 449891 (3.x). ❑ This reduces the numbers of database objects that need to be copied during the upgrade. ❑ Note: take care not to delete objects that are in use as this will cause queries, compressions, etc to terminate.	
Backups!	Before executing the upgrade, ensure that you have a backup strategy in place so you can return to the point where loading was completed and the upgrade started. Ensuring you can return to a consistent point in time (without having to handle rollback or repeats of data loads) is key to having a successful fallback plan.	
Additional tasks	Follow any additional instructions detailed in the upgrade guide and in SAP Notes	

Repeating PREPARE before start of Upgrade	**If there some time separating the last execution of PREPARE and the planned start of the upgrade itself, it is *strongly recommended* that PREPARE is re-executed immediately prior to the start of the upgrade.** **This ensures that all checks are executed on the system status as close as possible to the upgrade time. This should mitigate any unexpected errors that may occur during the upgrade itself and unnecessarily delay the upgrade.** **Also remember to perform your backups!**	

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7 Tasks that should be executed as you start executing the early phases of the upgrade (R3UP):

Task	How-To	Status
All SAP BW administration tasks should have ceased	❑ Cease all SAP BW administration tasks such as Object maintenance, query/web template maintenance, data loads, transports, etc at the beginning of the upgrade. The Administrators Workbench and the Data Dictionary are locked in the early phases of the upgrade. ❑ Reminder: Users can execute queries until the time that the upgrade determines that the SAP BW System should be closed* * - timing depends on the type of upgrade selected	
Remove unnecessary SAP BW temporary database objects	Repeat the deletion of all SAP BW temporary database objects after you have stopped using the SAP BW Admin workbench* ❑ Execute routine housekeeping ABAP SAP_DROP_TMPTABLES. For more information see SAP note 308533 (2.x) and 449891 (3.x). * - timing depends on the type of upgrade selected	
Additional tasks	Follow any additional instructions detailed in the upgrade guide and in SAP Notes	

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8 Tasks that should be executed after completion of the upgrade (R3UP):

Task	How-To	Status
Address any actions identified during upgrade	Complete all actions and issues listed in the “Longpost.log” log generated by upgrade tool “R3up”	
Check system parameters	Check OS, DB, and Instance profile parameters. ❑ Check System Instance parameters for new SAP BW 3.5 specific parameters. See SAP note 192658 for details ❑ Check for any DB specific parameters for SAP BW 3.5 ❑ Check for any new OS parameters	
Check Database archiving mode	Turn database archive log mode back on if it was disabled during the upgrade!	
Check the system’s installation consistency	Execute Transaction SICK to check installation consistency	
Check the system logs	Perform a technical systems check. ❑ Example: Check system and all dispatcher logs (inc. ICM logs)	
Apply latest executable binaries	Apply the latest 6.40 Basis Kernel for **all** executables ❑ Tip: use the SAP NetWeaver ’04 SP-Stack selection tool to find all binaries. (http://service.sap.com/swdc)	
Review SAP BW 3.5 Support Packages for follow-up actions.	❑ Review SAP Notes for all SAP BW Support packages applied during (bound into the upgrade) and applied after the upgrade: o Search for Note with the keyword “BW”, “SAPBWNEWS”, and “<BW release>” o Follow any required instructions identified in the SAP Notes	
Apply latest patches	❑ Apply the latest SPAM patch ❑ Apply any required support packages that were not bound into the upgrade.	
Apply additional SAP BW 3.5 Support Packages (if required)	❑ SAP recommends that customer remain current on SAP Support Packages. ❑ As required, apply any additional support packages	

	The following support packages should be download as a minimum: o SAP_BASIS o SAP_ABA o SAP_BW o PI_BASIS 2004_1_640 o BI_CONT 3.5.x (where x is target content release) ❑ Review SAP Notes for all SAP BW Support packages applied in previous task. o Search for Notes with the keyword “BW”, “SAPBWNEWS”, and “<BW release>” o Follow any required instructions identified in the SAP Notes	
Regenerate ABAP loads	Regenerate new and modified ABAP loads: ❑ Execute transaction SGEN, selecting the new ‘regenerate after SAP System Upgrade’ option. (This may take some time and will impair system performance)	
Install new documentation	Install new SAP BW 3.x Online Documentation ❑ See upgrade guide for information	
Resolve any modified SAP delivered Role issues	If SAP delivered Roles were modified, then these modifications may incorrectly appear in the upgrade modification adjustment tool (SPAU). ❑ Review and implement SAP note 569128 as required	
Install SAP Web AS 6.40 J2EE Engine (if applicable)	The J2EE engine installation is optional for SAP BW 3.5 if you have not previously installed J2EE 6.20 or 6.30 on your SAP BW 3.X system. The upgrade/installation guide states that you should install the J2EE engine if "There is no installation of a J2EE Engine on the source release, and the business scenario you are implementing requires a J2EE Engine 6.40". The SAP BW 3.5 business scenarios that require the J2EE 6.40 engine are: ❑ Universal Data Connect (UDC) [part of UDI]* ❑ SAP BI Java SDK [part of UDI]* ❑ SAP BI Meta-Model Repository* ❑ Web Services testing functionality * - These components require the SAP BW 3.5 Add-on	

	installed on the J2EE engine. **Note: SAP Web AS 6.40 J2EE requires a unicode compliant database to install its DB schema into. Depending on the basic system variant selected during installation this may require you to prepare your database for creation of the J2EE schema.** ❑ For Oracle databases, consult SAP Note 669902 ❑ For Miscrosoft SQL Server databases, consult SAP Note 600027 ❑ For Informix databases, you will need to install an additional database that supports unicode. The J2EE Engine would be installed in this separate DB. MaxDB is shipped to Informix customers as one possible option. ❑ Install the SAP Web AS 6.40 J2EE engine ❑ (As required) Install the SAP BW 3.5 J2EE Add-on* ❑ Apply all patches according to your selected SAP NetWeaver '04 SP-Stack level	
Install SAP Workbook pre-calculation service (if applicable)	If you plan to use the SAP Workbook pre-calculation, you must install the pre-calculation service and configure SAP BW 3.5 to use the service. The service requires: ❑ Windows 2000 or XP server ❑ Excel 2000+ or Office 2002+ installed on the server ❑ Microsoft .Net framework 1.0 or higher on the server ❑ SAPGUI for Windows 6.20 or greater installed on the server ❑ Pre-calcuation service ❑ Tip: Use the latest Pre-calcuation service available. Download from the SAP Service Marketplace (http://service.sap.com/swdc)	
Configuring Information Broadcasting email functions	If you plan to use the email function of Information broadcasting: ❑ configure the SAP Connect feature of SAP Web AS to connect SAP BW (SAP Web AS's SAP Office) to your mail server [Exchange, Lotus notes, etc] ❑ Review the online help documentation for SAP Connect and transaction SCOT (http://help.sap.com).	

Configuring Information Broadcasting EP/KMC Connections	If you plan to use the EP integration functionality of Information broadcasting (Broadcast to the EP's PCD, Broadcast to KMC, or Broadcast to Collaboration Rooms): ❑ Ensure the SAP EP is at the same SP-Stack level as your SAP BW system. ❑ Follow the online help documentation to configure and connect the SAP BW system and the SAP EP system. (http://help.sap.com). ❑ For broadcasting to KMC, ensure that KM has the 'BEx Portfolio' content available.	
Generate the new release notes for SAP BW 3.5	Generate SAP BW release and all other component release (e.g. SAP_BASIS, SAP_BW, etc) notes. ❑ Start via (main menu) Help-> Release notes Click on 'mySAP Release notes: Entire List'	
Re-check SAP BW Object and consistency	Execute RSRV to check SAP BW Object consistency ❑ Repeat tests that we executed prior to the upgrade. ❑ Validate results	
Are SAP BW Internet Communication Framework services (ICF) active? Are the correct Web AS parameters set to enable SAP BW web applications	**For upgrades from SAP BW 2.x:** SAP BW ICF services are required for SAP BW web applications such are executing SAP BW web items (charts, tables, role menus, etc), displaying mimes (icons, etc), XML data loading and documents. ❑ Note: Some ICF services can be left inactivate if you are not going to utilize this function: i.e. XML data loading or web reporting ❑ Activate SAP BW ICF services via transaction SICF. Select the service and select 'activate' from the context menu. The document referenced below has more details on this process. Check and Configure the ICM parameters to enable HTTP/HTTPS communication for SAP BW web applications ❑ Consult the How-To guide: "How to… Enable SAP BW Web functionality after a new BW installation" Downloadable from http://service.sap.com/BW -> Service & Implementation -> Guide List SAP BW3.5 - Part of NW 04 -> Business Intelligence	
Install and configure an Internet Graphics Service	Install and configure the SAP Web AS 6.40 Internet Graphics Service (IGS). ❑ Download and install the latest version of SAP Web AS 6.40 IGS from the SAP service Marketplace 'SWDC' alias.(http://service.sap.com/swdc)	

	❑ **Note: You must use the SAP Web AS 6.40 Windows 'stand alone' version of IGS to do your web report conversion and your IGS chart migration.** ❑ Configure IGS and SAP BW as directed in the IGS installation guide.	
Check InfoCube views for consistency	Check consistency of InfoCube fact table views ❑ It is possible that fact table view /BIC/V<InfoCube>F is missing if a number of SAP BW upgrades have been performed before (example: 1.2B -> 2.0B, 2.0B-> 2.1C, 2.1C -> 3.0B or 3.1 Content) ❑ See SAP Note 525988 for instructions for the check and repair program.	
Perform SAP BW Plug-in (SAPI) upgrade follow-up tasks	❑ If required, Re-activate the SAP BW "Myself" source system in SAP BW. ❑ The SAP BW internal plug-in (SAPI), which is used for internal data mart extraction and 'BW to BW' communication, is upgraded during the SAP BW upgrade. The source system is de-activated to prevent extractions and loading during the upgrade. ❑ See SAP Note 506694 and 510835. ❑ It may be required to replicate export DataSources and reactivate transfer structures/rules for internal data loads (i.e. ODS Object to InfoCube objects). o Tip: It is advised to do this step for all export DataSources to avoid possible errors during execution of InfoPackages ❑ Check that all other Source Systems are active. o Activate as required.	
For SAP BW 2.0B/2.1C -> SAP 3.5 Upgrades: Perform the following tasks	**For SAP BW 2.0B/2.1C -> SAP BW 3.5 Upgrades:** ❑ Perform step listed in the How To guide: "How To customize BW 3.0 after an upgrade from BW 2.0B/2.1C)". Downloadable from http://service.sap.com/BW -> Service & Implementation -> Guide List SAP BW3.0B/ BW3.1 Content [Some steps are duplicated in this document] ❑ Note: This guide is relevant for SAP BW 3.5	
Check SAP BW Personalization is implemented	(SAP BW 2.X upgrades will have performed this in the previous task). Validate that personalization has been activated in your SAP	

	BW system. Note: It has been observed that in some cases, BEx Personalization has to be re-activated after an upgrade from SAP BW 3.x to SAP BW 3.5. It is advised to check the status of personalization after the upgrade. ❑ Enter the IMG (transaction SPRO), select SAP Business Warehouse -> Reporting relevant settings -> General Reporting Settings -> Activate Personalization in BEx Check the status of the Personalization settings. All entries should be active – highlighted by an unchecked check box. ❑ To activate highlighted Personalization, click Execute.	
Implement new security objects.	Implement new security objects: ❑ New objects are automatically implemented in profile SAP_ALL but not in any other profile (i.e. not in SAP_NEW) ❑ Ensure that the new security objects are implemented and assigned to all SAP BW users ❑ New SAP BW 3.x security objects are documented in the How-To guide "How To customize BW 3.0 after an upgrade from BW 2.0B/2.1C)" and in the online documentation. Note: This guide is relevant for SAP BW 3.5 ❑ Additional security objects have been added for specific new functionality such as BW-BPS, Information Broadcasting, APD, etc.	
For SAP BW 2.0B/2.1C -> SAP BW 3.5 Upgrades: Convert ODS secondary indexes to new standard	**For SAP BW 2.0B/2.1C -> SAP BW 3.5 Upgrades:** Convert any customer created ODS Object secondary indexes to the new ODS Object index maintenance process. ❑ Re-create all indexes in the ODS Object definition screen in transaction RSA1. ❑ ODS indexes must conform to the new naming convention	
For SAP BW 2.0B/2.1C -> SAP BW 3.5 Upgrades: Implement new temporary object housekeeping functions	**For SAP BW 2.0B/2.1C -> SAP BW 3.5 Upgrades:** Implement new functionality for house keeping ABAP SAP_DROP_TMPTABLES. New options are available as of SAP BW 3.X. ❑ Review SAP note 449891 and adjust previously created SAP BW 2.x variants as needed.	
For SAP BW 2.0B/2.1C -> SAP BW 3.5 Upgrades:	**For SAP BW 2.0B/2.1C -> SAP BW 3.5 Upgrades:** If your DB is Oracle, convert your DB Statistics collection ❑ Convert your SAP BW DB statistics gathering to use the	

For Oracle, convert DB statistics collection methods	brconnect tool. ❑ Follow the steps outlined in OSS note 129252 (including the tidy up of table DBSTATCO).	
For SAP BW 2.0B/2.1C -> SAP BW 3.5 Upgrades: Review new InfoSet functionality and convert as required	**For SAP BW 2.0B/2.1C -> SAP BW 3.5 Upgrades:** Review existing InfoSet queries and determine whether to convert the previously created "Classic" InfoSets to the new "BW InfoSets" ❑ OSS note 458708 should be reviewed before conversions	
Converting IGS chart settings	Convert you existing IGS chart settings (converts IGS chart settings from BLOB to new XML storage format) ❑ Ensure you have the latest SAP Web AS 6.40 IGS (stand alone windows version) installed and working o Test via transaction RSRT ❑ Execute the conversion process as directed the SAP BW 3.5 upgrade guide. ❑ Note: This step is required for ***all*** SAP BW 3.5 upgrades	
Optional migration of IGS from stand alone version to application server based IGS	Once you have converted your web reports (upgrade from SAP BW 2.x) and converted your chart settings (all upgrades), you have the option to install the application server based IGS. ❑ Install the web application server based IGS via SAPinst (see SAP BW 3.5 installation guide) on each application server where SAP BW web applications can be executed. ❑ Convert your IGS RFC destination IGS_RFC_DEST to point the newly installed IGS. Remove your gateway host info.	
Backup your SAP BW system	Perform a full database backup (including the File system) Remember to adjust your backup scripts to include new components such as the J2EE engine, pre-calculation service, etc.	
Reschedule background and triggered processes	❑ Reschedule Technical background jobs and Database jobs (example: backup and statistics) ❑ Reschedule functional background and triggered jobs (example: SAP BW data loads)	
Compile upgrade runtime statistics and send to SAP.	❑ Execute post-upgrade ABAP 'RSUPGSUM' and send the output to SAP o See Upgrade guide for details	

If Crystal Decisions is installed and connected to SAP BW, check version for compatibility with SAP BW 3.5	If Crystal Decisions is being used, you should check that your version is compatible with SAP BW 3.5. ❑ The current release supported is 8.5 ❑ Please check http://service.sap.com/crystaldecisions for more information	

9 Appendix

Note	Short text
46272	Implement new data class in technical settings http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=46272&_NLANG=E
447341	Inconsistent characteristic values f. ALPHA conversion route http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=447341&_NLANG=E
308533	Temporary Database Objects in BW 2.0 http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=308533&_NLANG=E
129252	Oracle DB Statistics for BW Tables http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=129252&_NLANG=E
192658	Setting basis parameters for BW Systems http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=192658&_NLANG=E
484519	BW 20B/21C Web template check program http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=484519&_NLANG=E
449891	Temporary database objects in BW 3.x http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=449891&_NLANG=E
458363	Prepare in upgrade: Inconsistent InfoObjects + InfoCubes http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=458363&_NLANG=E
449160	RSUPGRCHECK report http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=449160&_NLANG=E
458708	Transforming Classic InfoSets in new BW InfoSets http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=458708&_NLANG=E
506694	Upgrading to SAPI 3.0B http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=506694&_NLANG=E
510835	Additional information on upgrading to BW 3.0B http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=510835&_NLANG=E
484878	Information on converting Web objects http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=484878&_NLANG=E
525988	Upgrade problems in the fact table views /BIC/V<Infocube>F http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=525988&_NLANG=E
500252	Changing data cl. for InfoC. with report RSDG_DATCLS_ASSIGN http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=500252&_NLANG=E
600027	Installing corrected MSSQL Collation http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=600027&_NLANG=E
569128	SPAU/PFCG: Indefinite comparison mode for SAP roles http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=569128&_NLANG=E
653814	BI Content Add-On dependencies for SAP_BW http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=653814&_NLANG=E
539977	Release strategy for add-on ST-PI http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=539977&_NLANG=E
669902	Oracle9i: Setting the National Character Set to UTF8 http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=669902&_NLANG=E
781633	Additional information for the upgrade to BW 3.50 SR 1 http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=781633&_NLANG=E
658992	Additional information for the upgrade to BW 3.50 http://service.sap.com/~form/handler?_APP=01100107900000000342&_EVENT=DISPL_TXT&_NNUM=658992&_NLANG=E

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