

SAP How-to Guide
Database & Technology

Customer

SAP HANA™ Appliance

How To... Checklist Tool for SAP BW powered by SAP HANA

Applicable Releases:
SAP BW 3.5 or higher

Version 4.1
July 2016

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Document History

Document Version	Description
1.0	SAP-internal release
2.0	First official release of this guide
2.1	Minor updates and bug fixes Added 22 new checks
2.2	Updated list of SAP notes for "Corrections" check set Added 7 new checks, for example: Readiness check for NLS with Sybase IQ, SAP HANA scale-out, and SLT replication
2.3	Added 3 new checks: Configuration of SAP HANA delta merge, list of corrections related to wrong data in OLAP queries, and readiness for SAP HANA feasibility check
2.4	Improved check for DataStore Objects (related to MPP and HANA-optimized activation without DSO conversion) Added check for consistency of HANA history tables
2.5	Additional choice to consider the Database Migration Option of SAP Software Update Manager (DMO4SUM) Added download links to required software packages
2.6	Added check for OLAP pruning settings Enhanced check for HANA-optimized DSO consistency Updated checks for SAP Note corrections
2.7	Updated DMO check (including new check for OBTCCOMP) Better detection of dual stack/MCOD with Java New check for HANA OLAP/Join Engine settings Updated check for PAK and BPC Unified switch Major update of program correction checks
2.8	Option to easily transfer updated BW Technical Content
3.0	Major update to include or update checks for BW 7.4 and SAP HANA SPS 7 (now over 230 different checks)
3.1	Enhanced usability of log display New checks for VirtualProvider and query snapshots on BWA New check for non-cumulative InfoCubes
3.2	New option to exclude system connection checks Added check for HANA Extended Storage for BW New check for Data Services API New check for Demo Content for Features
3.3 and higher	For details see Version_History.txt

Typographic Conventions

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

Icons





Icon	Description
	Caution
	Note or Important
	Example
	Recommendation or Tip

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1. Business Scenario

You are planning to migrate your SAP BW system to the SAP HANA platform. Now you are looking for a quick and easy way to check if your BW system is ready for the upgrade and migration. This document describes how to use the "Checklist Tool for SAP BW powered by SAP HANA".

Note

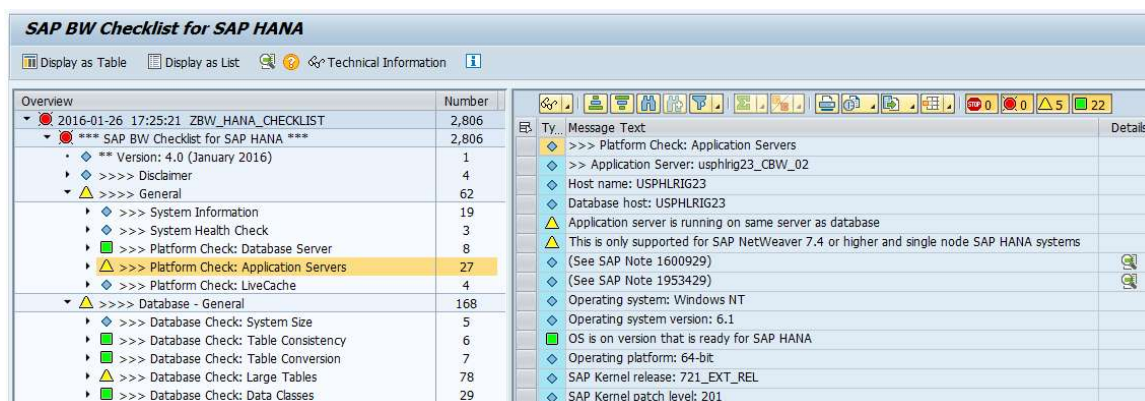
The checks are not necessarily complete or intended to replace existing tools and checks (like the ASU-Toolbox or Early Watch Reports). The goal is rather to automate and combine various checks that would have to be performed manually otherwise.

We also highly recommend using the "Post Copy Automation" (PCA) tool to facilitate and simplify the migration and release upgrade.

See http://service.sap.com/~form/sapnet?_SHORTKEY=01100035870000740536&

2. Background Information

The migration of an existing SAP BW system is a big task with many opportunities for running into stumbling blocks. In an effort to avoid as many of such issues as possible, SAP HANA BW Product Management has developed a program – the so called "Checklist Tool" – that automates the check of best practice guidelines for operations and pre-requisites for migration of an existing SAP BW deployment to the SAP HANA platform.



Example output of the Checklist Tool

The idea is to run the Checklist Tool at various stages during your project. Then follow up on and eliminate proactively any issues found by the tool. As a first go, install and run the tool in your current BW system (ideally in production) to get a quick assessment. Focus on the "red" issues highlighted by the tool. It's mandatory to address the issue before or as part of the migration process or the migration will fail. For example, big ticket items could be Unicode conversion, add-on compatibility, analysis authorizations, or various database and operating system prerequisites. Knowing about these issues will help you to plan the migration properly.

It might be possible to resolve some if not all "red" issues already in your current environment. It's certainly recommended to do so before you start the actual migration project and as a side effect your current BW system will run just a bit smoother.

Now run the Checklist Tool again. Fewer issues should popup. As you are getting closer to the start of the migration, focus on the “yellow” issues and eliminate as many as possible. It definitely recommended applying all program corrections related to migration tools or to SAP HANA interfaces. Check the corresponding SAP Notes and apply them to your system. The tool also points out areas which can reduce the overall runtime of the migration including release or support package upgrades.

When you are starting the migration of your landscape, run the tool one more time on your BW system. Typically this would be your development system which you migrate first. Ideally all issues are resolved and the system is ready to be migrated to SAP HANA. Perform the actual migration work (release upgrade, system export and import, and any post-processing). Once the system is up and running on SAP HANA, execute the Checklist Tool again. Because some checks are specific to SAP HANA, you might see new issues appearing in the log. This is normal and you can work on resolving those issues as the final step of the migration for this system. In subsequent phases of your project, we recommend to follow the same procedure for the migration of your test, quality assurance, and your production systems.

3. Prerequisites

This section lists the prerequisites that must be in place before you can use this how-to guide and the Checklist Tool.

- Prerequisites for “BW 7.x Scenario”:
 - SAP BW release 7.0 or higher (including Enhancement Packages)
 - ST-PI add-on release 2008_1_700 or higher
- Prerequisites for “BW 3.x Scenario”:
 - SAP BW release 3.5
 - ST-PI add-on release 2005_1_640 or higher
- Recommended for both cases:
 - Run latest version of SAP Host Agent (SAPOSCOL), see SAP Note [1031096](#) (otherwise certain operating system information cannot be collected and checked)

Limitations:

- The Checklist Tool is available in English only

4. Step-by-Step Procedure

In this section, we show how to install and run the Checklist Tool. You will find the documentation of the individual checks and help for interpreting the check results in the appendix.

4.1 Installation

1. Download the latest version of the tool from SAP Note [1729988](#). (Login to SAP Service Marketplace required.)

The tool is continuously updated (at least once a month). Please check back regularly.

 Note:

The tool **cannot** be installed using transaction **SNOTE**. Follow the instructions below.

2. The tool comes in two versions. Implement the version corresponding to the release of your BW system. All code is contained in a single ABAP program in order to make the implementation as easy as possible. A simple “cut & paste” and “activate” in transaction **SE38** will do the trick.

ZBW_HANA_CHECKLIST (for BW 7.x and higher)
ZBW_HANA_CHECKLIST_3X (for lower BW releases)

 Note:

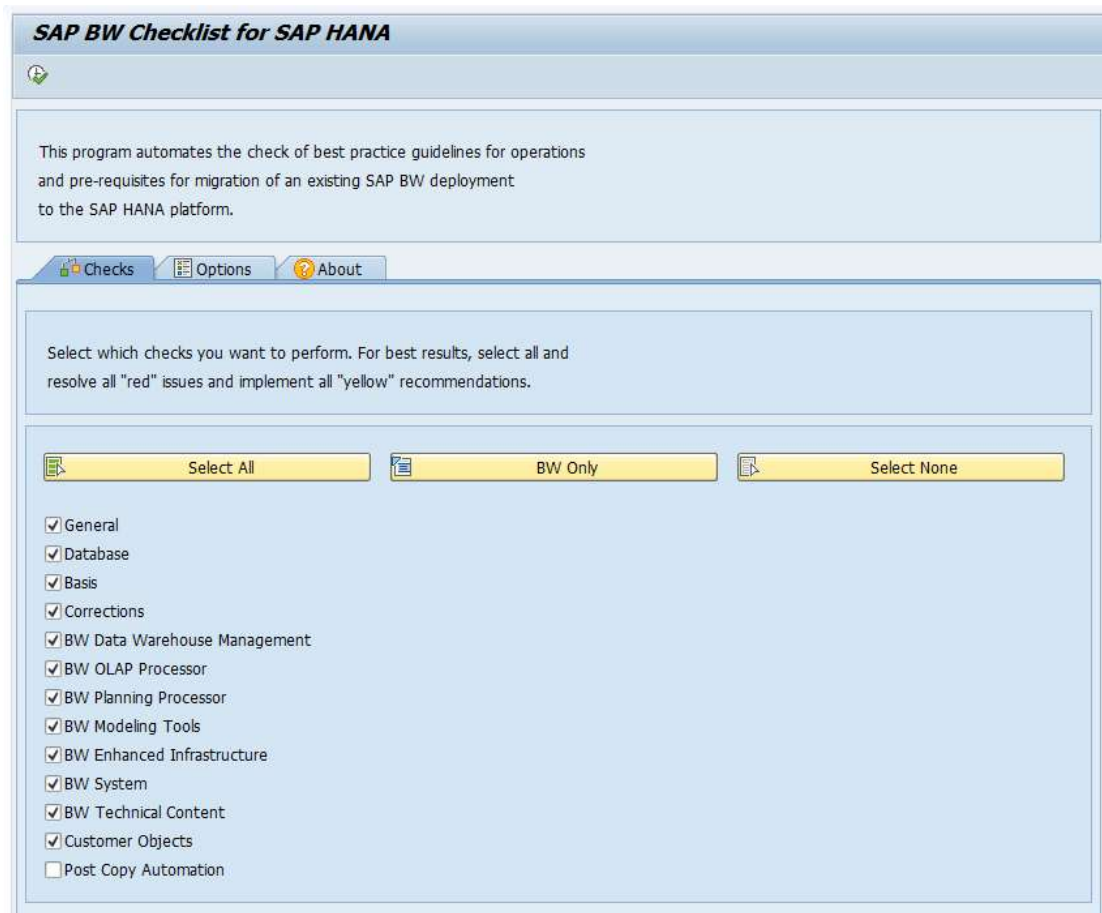
If your system is on a very old support package level (i.e. early 7.00 or 7.01 releases), then you might get *syntax errors for missing components*. To make the tool work for your system, you have to remove or disable the corresponding code between “*** BEGIN” and “*** END”. You can enable the checks again after the upgrade.

Error	Component	Corresponding Code
Missing component RSDAI_S_COMPONENT_VERSION_INFO	Near-line Storage	*** BEGIN: Near-line Storage Check *** END: Near-line Storage Check
Missing component TREXS_LANDSCAPE_SUMMARY	BW Accelerator	*** BEGIN: BW Accelerator Check *** END: BW Accelerator Check
Missing components RSFC_TOPIC, RSFC_*	Feature Demo Content	*** BEGIN: Feature Demo Content Check *** END: Feature Demo Content Check

3. Transport the tool to your test and production systems.

4.2 Run

1. Start the Checklist Tool using transactions **SA38** or **SE38**. The following selection screen will appear:

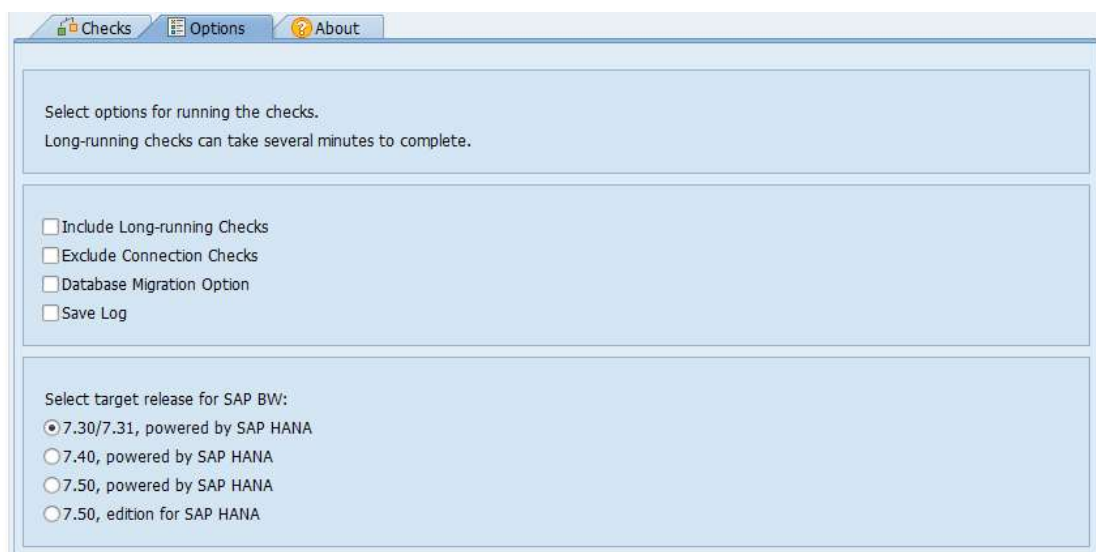


2. On the first tab, you can select which checks should be performed. Even if all checks are selected the total runtime is usually just a few minutes. However, you might want to pick only a few checks to speed up the processing or to focus on specific areas only.

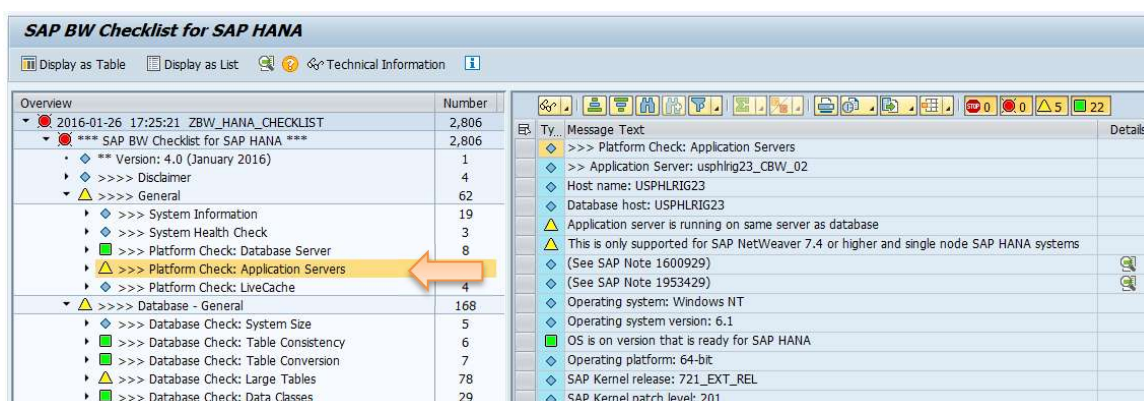
The second tab shows a few options for executing the checks:

- You can include checks which take a long time (several minutes) or exclude checks related to external system connections (especially useful if you haven't reconnected a system copy).
- There's also the choice to consider the Database Migration Option for SAP Software Update Manager (DMO4SUM). See SAP Note [1799545](#) for more details.
- You save results to the application log for later viewing. If you schedule the checks to run as a batch job, the results will always be saved in the application log (transaction **SLG1**, object **RSD**, sub-object **MIGRATION**).
- Some of the checks are release dependent. You can select the planned target release on the options tab.

Clicking the “Documentation” button, opens a browser to show SAP Note [1729988](#) which contains the most recent documentation (i.e. this how-to guide).



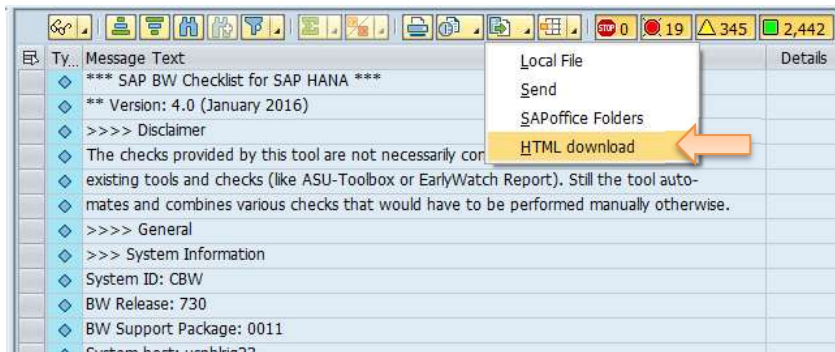
3. Run the checks using *Program à Execute*.
4. After the checks are completed, the system will display the results:



The left half of the screen will display the results in a tree structure grouping the checks according to the categories mentioned on the selection screen.

By double clicking on a line in the upper section, you can show the corresponding section in a list in the right half of the screen. If you clicked on the root, then the complete log will be shown in the right half. This makes it easy for example, to print or download all or only specific parts of the results. You can also search and filter in the results quickly.

5. You can download the log in various formats:



The recommended download format is "HTML" because it includes status icons and is easy to view on various devices. However, HTML download for long results (>2,000 messages) can take a long time. In such case it's better to download to a local text file.

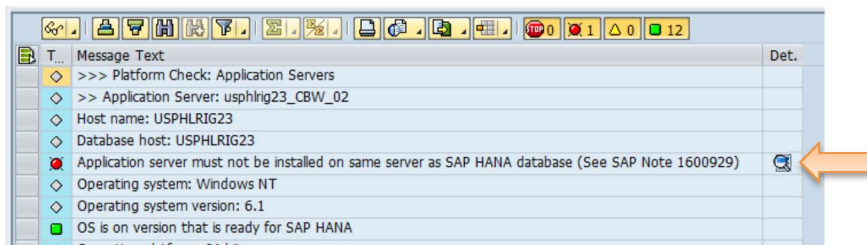
6. The output of the program is self-descriptive (see also the appendix). Each check results in a "green", "yellow" or "red" status.

- Successful checks are indicated with green lights
 No further action necessary
- ▲ Warnings are indicated with yellow lights
 It is recommended to follow the suggested action
- Errors or inconsistencies are indicated with red lights
 It is highly recommended to complete the action item(s). If not, a migration to the SAP HANA platform will most likely not be possible.
- ◆ Information messages are indicated with grey icons

Checklist Tool will also show inconsistencies on BW/application layer. These typically do not hinder or stop the database migration but can very well lead to issues in testing the system afterwards. There's also a risk that our migration tools do not handle inconsistencies correctly (because SAP does not test such scenarios). Finally, one might blame the migration process for inconsistencies although they existed already in the original system.

Therefore it is highly recommended to **fix any inconsistency** highlighted by the tool **before** the migration.

- For all "yellow" and "red" issues, the result will contain recommendations to help address the identified issue. In many cases, this will include links to SAP Notes or SAP Help Documentation. You can open the link by clicking on the icon in the "Details" column.

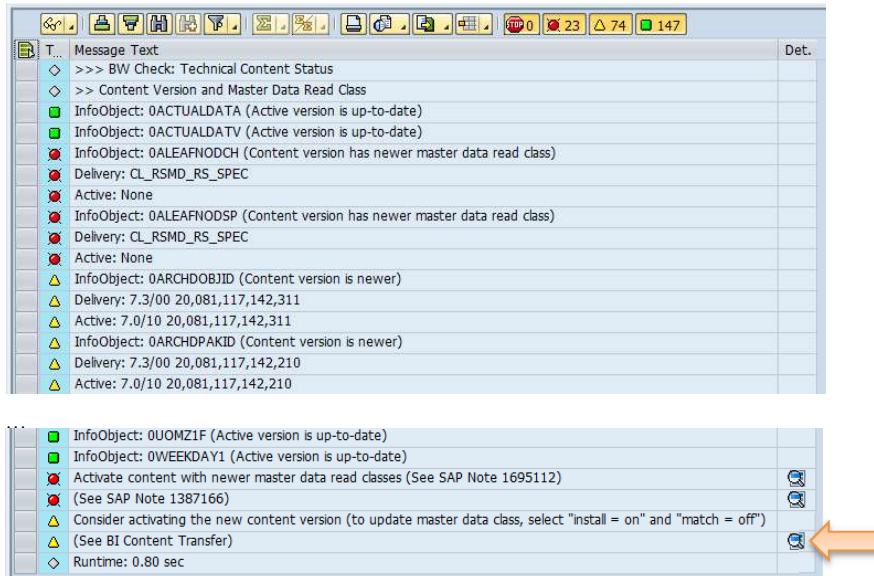


- "Details" are available for the following items:

Type	Description
SAP Note	Launch browser to display SAP Note
All recommended SAP Notes	Show summary list of all SAP Notes
SAP Help	Launch browser to display online documentation
SAP Community Network	Launch browser to display SCN documents
SAP Service Marketplace	Launch browser to display page on SMP
Downloads	Launch browser to display download section on SMP
Programs	Start corresponding ABAP program
Transactions	Start corresponding ABAP transaction
Functions	Start corresponding ABAP function module in test mode
Tables	Display table content specific to check
Large Tables	Display size of largest tables
Jobs	Display list of jobs
BW Technical Content	Transfer content settings via Data Warehousing Workbench
Namespaces	Show list of objects in namespace
Packages	Show list of objects in development package
Other Websites	Launch browser to display website

- It's common to find BW Technical Content that is not up-to-date (especially related to master data classes). You can start the content collection via the "Detail" button.

Note: The system must be changeable i.e. this typically only works in development systems.



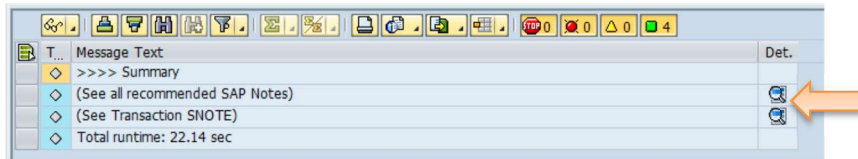
The system will collect the content for all InfoObjects which are not up-to-date.

Collected objects	Install	Match (X) or copy	S	A	Technical name	E	B	Co...	Last Content mod...	Person R...
Changeable Display for Generated Leaves	<input type="checkbox"/>				0ALEAFNODCH	7.0/00	2005-05-04	11:19:58	SAP	
Do Not Display Leaves for Inner-Nodes in the Quer...	<input type="checkbox"/>				0ALEAFNODSP	7.0/00	2005-05-04	11:27:09	SAP	
Data Object in Archiving Request	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			0ARCHDOBJID	7.3/00	2008-11-17	09:23:11	SAP	
Data Package in Archiving Request	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			0ARCHDPAKID	7.3/00	2008-11-17	09:22:10	SAP	
Data Record Number in Archiving Data Package	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			0ARCHRECNO	7.3/00	2008-11-17	09:22:37	SAP	
Truth Value	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			0BOOL	7.3/00	2003-08-20	12:04:02	SAP	
Hierarchy Node(s)	<input type="checkbox"/>				0HIER_NODE	7.0/00	2005-05-04	11:31:42	SAP	
Hierarchy version	<input type="checkbox"/>				0HIER_VERS	7.1/00	2007-02-02	09:17:57	SAP	
Display for Generated Leaves Cannot Be Changed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			0H_ALEAFNOC	7.3/00	2006-02-09	10:55:36	SAP	
Technical ID of First Child Hierarchy Node	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			0H_CHILDID	7.3/00	2006-02-09	11:07:29	SAP	
Technical Name of Hierarchy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			0H_HIENM	7.3/00	2006-02-09	07:44:50	SAP	

Note: In some cases the content comparison does not indicate that a newer version is available (using the "date" icon) because the content timestamp has not been updated properly. This will be corrected in a future content version.

In order to install the latest version of the content, you have to select "Install = On" and "Match = Off". Only then all changes (like updated master data classes) are installed correctly.

10. Summary section shows total runtime of the checks



Click on "Details" to view a list of all recommended SAP Notes (see example):

Recommended SAP Notes

SAP_NOTE	CORRECTION	CONSULTING
706478		X
934848		X
955990		X
1139396		X
1163359		X
1164904		X
1272301		X
1387166		X
1489064		X
1532805		X
1600929		X
1629923		X
1637148		X
1637199		X
1649901		X
1652738		X
1666756		X
1695112		X
1707321		X
1736976		X
1754072	X	
1765760	X	
1766577		X
1773398		X
1780575		X
1780908	X	
1783238	X	
1791482	X	

The list distinguishes between program correction and consulting SAP Notes. When you exit the list, you have the option to download all recommended SAP Notes to transaction *SNOTE* (for changeable/development systems only).



5. Appendix

5.1 General Checks

ÿ System Information

- ÿ List general system properties
- ÿ Check validity of system license (digitally signed license required for BW 7.4 or higher)
- ÿ Display number of system and BW query users
- ÿ Related SAP Notes: [94998](#), [548699](#), [1751237](#)

ÿ System Health Check

- ÿ Perform general system health check
 - ÿ Note: Code has been commented out. Enable if you allow system-calls.
- ÿ Check prerequisites for ABAP-managed Database Procedures
- ÿ Related SAP Notes: [1899222](#)

ÿ Platform Check: Database Server

- ÿ Check if DB version is supported for migration to SAP HANA
 - ÿ If necessary upgrade to minimum DB version
- ÿ Check if database library (DBSL) version is supported for running SAP HANA
 - ÿ If necessary install the minimum DSBL version
- ÿ Check if the SAP HANA client version/revision matches the database version/revision
 - ÿ If necessary install the most current SAP HANA client on the application server
- ÿ Related SAP Notes: [1600066](#), [1600929](#), [1603671](#), [1914052](#), [1935871](#), [1951491](#), [2021789](#), [2043465](#), [2158828](#)

ÿ Platform Check: Data Lifecycle Management (Dynamic Tiering)

- ÿ Check if prerequisites for disk- and memory-based SAP HANA dynamic tiering
- ÿ Related SAP Notes: [1983178](#), [2317200](#)

ÿ Platform Check: Database Migration Option (DMO)

- ÿ Check if the system fulfills the requirements for performing the migration to SAP HANA using DMO (BW 7.0 or higher). This includes OS and DB platforms, SAP BW release and support package, as well as Unicode and Dual-Stack checks.
- ÿ <http://scn.sap.com/docs/DOC-49580>
- ÿ Related SAP Notes: [1799545](#), [1813548](#), [1968508](#), [2198483](#)

Y **Platform Check: Application Servers**

- Y Check if application servers are running on same server as database
 - Y If necessary, install a new application server
- Y Check if OS version is supported for application servers running against SAP HANA
 - Y If necessary, upgrade or patch the operating system to the minimum version required for SAP HANA (<http://service.sap.com/pam>)
- Y Check if SAP kernel supports SAP HANA
 - Y If necessary, upgrade to the recommended SAP Kernel
- Y Check if application server fulfills requirements for using Sybase IQ Near-line Storage (NLS) for BW
 - Y http://help.sap.com/saphelp_nw73/helpdata/en/60/cf63e1b449429ee6c35e6ad03a45/content.htm
 - Y For more details, view the corresponding SAP Notes
 - Y Related SAP Notes: [1600929](#), [1713523](#), [1737415](#), [1796393](#), [1953429](#), [1969546](#)

Y **Platform Check: LiveCache**

- Y Check if LiveCache is installed
- Y Display number of APO InfoCubes

5.2 Database Checks

5.2.1 Database – General

ÿ Database Check: System Size

ÿ Display total size of database (for MaxDB and IBM DB2 only on BW 7.0 or higher)

ÿ Related SAP Notes: [1698281](#), [1736976](#)

ÿ Database Check: Table Consistency

ÿ Check if DB contains inconsistent, missing, or unknown objects

ÿ Fix the listed objects using transaction DBACOCKPIT

ÿ Database Check: Table Conversion

ÿ Check for any pending or aborted DB conversions

ÿ http://help.sap.com/saphelp_nw73/helpdata/en/cf/21f1c5446011d189700000e8322d00/frameset.htm

ÿ Fix the listed objects using transaction SE14

ÿ Database Check: Large Tables

ÿ Calculate size of typically largest tables (that don't contain BW data)

ÿ It's highly recommended to run housekeeping jobs prior to migrating to SAP HANA

ÿ http://help.sap.com/saphelp_nw73/helpdata/en/86/bd48813bba47ccbed3cd81c403a709/frameset.htm

ÿ Related SAP Notes: [706478](#)

ÿ Database Check: Database Statistics

ÿ Check setting of DB statistic collection (Oracle only)

ÿ If necessary, update DBSTATC setting

ÿ Related SAP Notes: [129252](#)

ÿ Database Check: Data Classes

ÿ Check if data classes comply with naming standard

ÿ Correct the corresponding data classes

ÿ Check if InfoCube and DSO tables are assigned to existing data classes

ÿ Re-assign the listed tables to a proper data class using program RSDG_DATCLS_ASSIGN

ÿ Although SAP HANA does not distinguish between different data classes, the database migration (export and import) are processed by data class. Therefore a proper setup and assignment of data classes is recommended.

ÿ Related SAP Notes: [46272](#)

Y Database Check: Database Connections

- Y List connections to other databases and check if connection works
 - Y Check name and database system of connection
 - Y Check compatibility for all connected database platforms
 - Y <http://service.sap.com/pam> > SAP NetWeaver 7.3
- Y Related SAP Notes: [955990](#), [1371928](#) (MaxDB), [663756](#) (DB2, DB4, INF), [200164](#) (DB6), [1664432](#) (SAP HANA), [1601608](#) (MSSQL), [1261329](#) (Oracle), [1532253](#) (Sybase), [1750722](#)

Y Database Check: Cluster and Pool Tables

- Y Display number of cluster and pool tables and check their consistency
- Y Related SAP Notes: [1784377](#), [1905134](#)

5.2.2 Database – SAP HANA

Y SAP HANA Check: Landscape

- Y Display and check number of master and slave nodes
- Y Relevant SAP Notes: [1702409](#)

Y SAP HANA Check: Row Store

- Y Check if standard row store list is available via program RUTSETRCST_TABNAMES
 - Y If possible, implement SAP Note 1815547
- Y If not, check rowstorelist.txt is located in directory /usr/sap/<sid>/SYS/global and can be opened (SAP HANA only)
 - Y Download rowstorelist.txt from SAP Note 1659383 and copy it to the directory on the application server
- Y Display size of row store and check size against maximum row store size of 768 GB
 - Y If necessary, perform a detailed system check and run housekeeping jobs to reduce the size of the row store
- Y Check if row store is fragmented
 - Y If necessary, perform a reorganization of the row store
- Y Related SAP Notes: [1659383](#), [1750965](#), [1813245](#), [1815547](#), [1963791](#)

Y SAP HANA Check: Scale-out

- Y Check if ABAP API (TREXviaDBSL) fulfills minimum support package level to support scale-out
 - Y If necessary, upgrade to recommended support package or implement corresponding SAP Note
- Y Check if ABAP Kernel is on proper version to support scale-out
 - Y If necessary, upgrade to SAP Kernel 721_EXT or higher
- Y Check if SAP HANA is on proper revision to support scale-out
 - Y If necessary, update SAP HANA to revision 45 or higher
- Y Related SAP Notes: [1776186](#), [1798043](#)

- ÿ **SAP HANA Check: Open File Limit**
 - ÿ Check if limit for number of open files is set properly
 - ÿ Follow the instructions given in the corresponding SAP Note
 - ÿ Related SAP Notes: [1771873](#)
- ÿ **SAP HANA Check: Table Distribution**
 - ÿ Check if the general and partitioning parameters are setup properly in SAP HANA
 - ÿ Follow the instructions given in the corresponding SAP Note
 - ÿ Check if table placement feature is enabled and configured properly in SAP HANA (as of revision 63)
 - ÿ Follow the instructions given in the corresponding SAP Note
 - ÿ <http://scn.sap.com/community/hana-in-memory/blog/2013/09/03/sap-hana-landscape-redistribution-with-sp6>
 - ÿ Related SAP Notes: [1715048](#), [1819123](#), [1908073](#), [1908075](#), [1908133](#), [1958216](#), [2081135](#), [2175148](#)
- ÿ **SAP HANA Check: Delta Merge**
 - ÿ Check if mergedog and smart merge are active
 - ÿ Follow the instructions given in <http://scn.sap.com/docs/DOC-27558>
 - ÿ Check if auto compression is working properly (only revisions 60 to 70)
 - ÿ Follow the instructions given in the corresponding SAP Note and temporarily turn on auto compression
 - ÿ Related SAP Notes: [1955508](#), [2105761](#)
- ÿ **SAP HANA Check: History Table Consistency**
 - ÿ Check if history tables are created with correct data type for \$validfrom\$ fields
 - ÿ If necessary perform a detailed check as described in the given SAP Note
 - ÿ Related SAP Notes: [1879656](#)
- ÿ **SAP HANA Check: Statistic Server**
 - ÿ Check if new statistic server is active (as of revision 74)
 - ÿ Evaluate if the new statistic server should be used (lower memory consumption)
 - ÿ See [Embedded Statistics Service Migration Guide](#)
 - ÿ Related SAP Notes: [1917938](#), [1925684](#), [2092033](#)
- ÿ **SAP HANA Check: Master Data Views**
 - ÿ Check if any invalid master data views (for F4-help) exist
 - ÿ If necessary, reactivate the corresponding InfoObjects
 - ÿ Related SAP Notes: [1984370](#)
- ÿ **SAP HANA Check: Row/Column Store Conversion**
 - ÿ Check if more row tables should be converted to column tables before upgrading
 - ÿ If necessary, run program RSDU_MOVE_TO_COLUMN
 - ÿ Related SAP Notes: [2044047](#)

Y **SAP HANA Check: Multi Column Join**

- Y Check Multi Column Join configuration (for optimizing joins)
 - Y If necessary, change the SAP HANA parameter setting
- Y Related SAP Notes: [1986747](#)

Y **SAP HANA Check: Sequences**

- Y Check the maximum object ID for SAP HANA sequences
 - Y If necessary, update to a newer SAP HANA revision
- Y Related SAP Notes: [2155663](#)

5.3 Basis Checks

- ÿ **Basis Check: System Trace**
 - ÿ Check if any system trace is active
 - ÿ Turn off all system traces using transaction ST01
- ÿ **Basis Check: Support Package Manager**
 - ÿ Check if SPAM/SAINT are up-to-date
 - ÿ It is recommended to always update to the current SPAM/SAINT version
 - ÿ Check number of parallel processes used for r3trans
 - ÿ Increase number of processes to speed up support package updates
 - ÿ Check system parameter rdisp/bufrefmode
 - ÿ Related SAP Notes: [1309506](#), [1597767](#)
- ÿ **Basis Check: ABAP/Java Stacks**
 - ÿ Check if ABAP and Java Stacks are installed on same database (BW 7.0 or higher)
 - ÿ It is mandatory to perform a split of dual-stack systems before migrating to SAP HANA. MCOB with AS ABAP and AS Java is supported now.
 - ÿ Related SAP Notes: [1600929](#), [1661202](#), [1849151](#)
- ÿ **Basis Check: Unicode**
 - ÿ Check if system is running Unicode and if Unicode Nametab is up-to-date
 - ÿ For non-Unicode systems, it is mandatory to include a Unicode conversion in the migration to SAP HANA
 - ÿ If Nametab is not up-to-date, run program RADUCNT
 - ÿ Related SAP Notes: [837173](#)
- ÿ **Basis Check: BW Release**
 - ÿ Check minimum BW, BI Content, and BI Extended Content releases and support package for running on top of SAP HANA
 - ÿ If necessary, upgrade to the required minimum release or support package
 - ÿ For more information on SAP BW 7.40 on SAP HANA see <http://scn.sap.com/docs/DOC-35096>
 - ÿ Check release and support package levels for running the database migration option (DMO only)
 - ÿ If necessary, upgrade to the required minimum release or support package
 - ÿ Related SAP Notes: [153967](#), [1799545](#), [1813548](#)

- ÿ **Basis Check: Add-on Information**
 - ÿ Information of general add-on compatibility
 - ÿ Related SAP Notes: [1532805](#), [1652738](#), [1826531](#), [1850345](#), [2156130](#), [2156543](#)
- ÿ **Basis Check: Add-on Releases**
 - ÿ Check minimum releases for various add-ons: SEM, BPC, ST-PI, DMIS, Virsa, GRC, Smart Meter Analytics, Spend Performance Management, Notes Management, Public Budget, CTS Plug-in
 - ÿ If necessary, upgrade to the required minimum release or support package
 - ÿ Related SAP Notes:
[69455](#), [539977](#), [1301785](#), [1570146](#), [1590721](#), [1602357](#), [1622930](#), [1622931](#), [1640155](#), [1653540](#), [1714013](#), [1735006](#), [1772290](#), [1772291](#), [1778516](#), [1826585](#), [1843537](#), [1906096](#), [1916316](#), [1927083](#), [1984475](#), [1984476](#), [1984477](#), [2013452](#), [2016511](#), [2023281](#), [2023790](#), [2103585](#), [2168936](#), [2177040](#), [2240726](#)
- ÿ **Basis Check: Add-on Usage**
 - ÿ Check if SEM or BPC are installed
 - ÿ Check if POS DM is used (based on TLOG tables)
 - ÿ If necessary, upgrade to the required minimum release or support package
 - ÿ Related SAP Notes: [1648861](#)
- ÿ **Basis Check: Support Package Equivalence**
 - ÿ Display the minimum support package level when upgrading to SAP BW 7.4 (BW 7.31 or lower)
 - ÿ Related SAP Notes: [1600929](#), [1850327](#), [2187353](#)
- ÿ **Basis Check: Logon Groups**
 - ÿ Check consistency of logon groups, for example if all instances are included
 - ÿ If necessary, maintain the logon groups using transaction SMLG
- ÿ **Basis Check: Standard Jobs**
 - ÿ Check if standard re-org jobs are scheduled
 - ÿ If necessary, schedule the default standard jobs using transaction SM36
- ÿ **Basis Check: ABAP Coding**
 - ÿ Check for inactive ABAP source
 - ÿ Review listed ABAP programs and fix any syntax errors. Optionally delete obsolete programs.
 - ÿ Check for ABAP sources without Unicode flag
 - ÿ Review listed ABAP programs for Unicode compatibility
- ÿ **Basis Check: ABAP Function Groups**
 - ÿ Check for inconsistent function groups
 - ÿ Fix function groups according to instructions given in SAP Note
 - ÿ Related SAP Notes: [783308](#)
- ÿ **Basis Check: Background Jobs**
 - ÿ Check if any background jobs are running (not on SAP HANA)
 - ÿ Suspend all background jobs before upgrading and/or migrating to SAP HANA
 - ÿ Restart all background jobs after successful upgrade and/or migration

- ÿ **Basis Check: Secure Storage**
 - ÿ Check if secure storage is working
 - ÿ It is recommended to perform a complete check using transaction SECSTORE
 - ÿ Related SAP Notes: [816861](#)
- ÿ **Basis Check: Trust Manager**
 - ÿ Check if trust manager is installed and working properly
 - ÿ If necessary, install SAP Cryptolib
 - ÿ Check for missing certificates
 - ÿ Setup any missing certificates in transaction STRUST
- ÿ **Basis Check: ALE Message Types**
 - ÿ Check for inactive message types (BW 7.01 or higher)
 - ÿ If necessary, active the ALE message types using the given program
 - ÿ Related SAP Notes: [1165059](#)
- ÿ **Basis Check: Search Engine Services**
 - ÿ Check if Service Engine Services is used (BW 7.0 or higher)
 - ÿ Use Embedded Search instead
 - ÿ Related SAP Notes: [1254901](#), [1703338](#)
- ÿ **Basis Check: Classic BPC on HANA**
 - ÿ Check if acceleration is setup properly and enabled (BPC 10.0 on SAP HANA or higher)
 - ÿ Follow the recommended SAP Notes to setup and enable acceleration
 - ÿ Related SAP Notes: [1696700](#), [1743412](#)
- ÿ **Basis Check: Update Requests**
 - ÿ Check if any update requests exist
 - ÿ Clean up as many updates and RFC calls as possible
 - ÿ Call transaction SM13 and select all the update requests by removing the defaults
 - ÿ Call transaction SMQ1 and check that the list of outbound queue RFC calls is empty
 - ÿ Related SAP Notes: [1083709](#)
- ÿ **Basis Check: Transport Management System**
 - ÿ Check if local TMS is working properly
 - ÿ In case of issues, run transaction STMS à System Overview à Check.
- ÿ **Basis Check: Transport Requests**
 - ÿ Check for any unreleased repair requests
 - ÿ Release any repair request before updating release or support packages
- ÿ **Basis Check: RFC Scheduler**
 - ÿ Check if RFC Scheduler is working and that maximum connection parameter is set properly
 - ÿ In case of issues, check RFC Scheduler in transaction SMQS
 - ÿ Related SAP Notes: [1163359](#), [1403974](#)

Y **Basis Check: Matchcode Objects**

Y Check if any matchcode objects exist

Y Matchcodes are not supported in Unicode systems and must be replaced or deleted

Y Related SAP Notes: [24860](#)

Y **Basis Check: Screen Consistency**

Y Check if any obsolete screens exist

Y You can clean-up the obsolete objects using the corresponding program

Y Relevant SAP Notes: [1953628](#)

Y **Basis Check: Runtime Checks**

Y Check if any of the runtime checks are active (BW 7.4 or higher)

Y You can activate the runtime checks in transaction SRTCM

Y Related SAP Notes: [1931870](#)

Y **Basis Check: DDIC Versions**

Y Check if any inconsistent versions exist for some DDIC objects (BW 7.4 or higher)

Y If necessary, follow the instructions given in the corresponding SAP Note

Y Related SAP Notes: [1817142](#)

Y **Basis Check: DDIC DecFloat Consistency**

Y Check transparent and cluster tables for DecFloat fields which might be inconsistent after migration (BW 7.4 or higher)

Y If necessary, follow the instructions given in the corresponding SAP Notes

Y Related SAP Notes: [1990894](#), [1991638](#)

5.4 Corrections

5.4.1 Corrections – General

ÿ **General Check: System Modifications**

- ÿ Find objects that require comparison or post-processing in transactions SNOTE, SPAU, or SPDD (with or without Modification Assistant)

- ÿ Fix the issues using the corresponding transaction (which should have been done during the most recent release or support package upgrade)

ÿ **General Check: System Enhancements**

- ÿ Find enhancement objects that potentially have to be adjusted after release upgrades and require post-processing in transaction SPAU_ENH

- ÿ If necessary, adjust the enhancements and confirm the changes

ÿ **General Check: SAP Notes**

- ÿ Check for outdated or inconsistent SAP Notes in transaction SNOTE

- ÿ Implement the most recent version of the listed SAP Notes

- ÿ Check for incorrectly downloaded SAP Notes

- ÿ Download the listed SAP Notes again

- ÿ Related SAP Notes: [1731244](#), [1935301](#)

5.4.2 Corrections – Basis

- ÿ Check if latest versions of the following SAP Notes are implemented

- ÿ These corrections are essential for a smooth migration to SAP HANA

- ÿ Implement these SAP Notes or the corresponding support package

- ÿ See List_of_Checks.html for the most recent list of program corrections

ÿ **Basis Check: Unicode Preparation Steps (non-Unicode systems only)**

ÿ **Basis Check: Transactions SNOTE/SPDD**

ÿ **Basis Check: GTADIR Connection**

ÿ **Basis Check: Composite SAP Note for SAP Basis**

ÿ **Basis Check: DDIC Activation**

ÿ **Basis Check: Trigger Handling**

ÿ **Basis Check: DBA Cockpit**

ÿ **Basis Check: HANA ABAP Interface SDB1FHDB/SDB2FHDB**

ÿ **Basis Check: HANA BW Interface**

ÿ **Basis Check: Program SMIGR_CREATE_DDL**

ÿ **Basis Check: Program SMIGR_BIG_ROW_STORE_TABS**

ÿ **Basis Check: Program RADIXCHK**

5.4.3 Corrections – BW

- ÿ Check if latest versions of the following SAP Notes are implemented
 - ÿ These corrections are essential for a smooth migration to SAP HANA
 - ÿ Implement these SAP Notes or the corresponding support package
 - ÿ See List_of_Checks.html for the most recent list of program corrections
- ÿ **BW Check: HotNews Corrections**
- ÿ **BW Check: HANA SQL Interface**
- ÿ **BW Check: Program RSUPGRCHECK**
- ÿ **BW Check: Program RS_BW_PRE_MIGRATION**
- ÿ **BW Check: Program RS_BW_POST_MIGRATION**
- ÿ **BW Check: Transaction RSMIGRHANADB**
- ÿ **BW Check: Transaction RSMIGRATE**
- ÿ **BW Check: Program SAP_UPDATE_DBDIFF**
- ÿ **BW Check: Program RSDU_TABLE_CONSISTENCY**
- ÿ **BW Check: Program RSDU_PSA_PARTNO_CHECK**
- ÿ **BW Check: Program RSAR_PSA_NEWDS_MAPPING_CHECK**
- ÿ **BW Check: Program RSDRX_REPAIR_XYTAB_ON_HANA**
- ÿ **BW Check: Program RSBKDPDELETELSYS**
- ÿ **BW Check: Program RS_TCO_ACTIVATION_XPRA**
- ÿ **BW Check: Other XPRA Programs**
- ÿ **BW Check: Function RS_AFTER_IMPORT_D**
- ÿ **BW Check: Function RS_DTRF_AFTER_IMPORT**
- ÿ **BW Check: Function RS_DTPD_AFTER_IMPORT**
- ÿ **BW Check: Data Consistency Checks**
- ÿ **BW Check: Program RSDU_WODSO_REPART_HDB**
- ÿ **BW Check: Program RSDU_RECREATE_CHGLG_HDB**
- ÿ **BW Check: Program /SDF/HANA_BW_SIZING**
- ÿ **BW Check: Function RSCDS_CONDENSE_CUBE**
- ÿ **BW Check: Incorrect Data in BW Queries**
- ÿ **BW Check: Query Pruning**
- ÿ **BW Check: Housekeeping Task List**
- ÿ **BW Check: HANA Planning Engine API (PLE)**
- ÿ **BW Check: Planning Application Kit (PAK)**
- ÿ **BW Check: Logical System Rename (BDLS)**
- ÿ **BW Check: SAP IQ NLS**
- ÿ **BW Check : Database Migration Option (DMO)**
- ÿ **BW Check: SAP Note Collections for BW 7.40**
- ÿ **BW Check: BW Modeling Tools**
- ÿ **BW Check: BW Workspace Migration**

5.4.4 Corrections – Add-ons

- ÿ Check if latest versions of the following SAP Notes are implemented
 - ÿ These corrections are essential for a smooth migration to SAP HANA
 - ÿ Implement these SAP Notes or the corresponding support package
 - ÿ See List_of_Checks.html for the most recent list of program corrections
- ÿ **BW Check: Business Planning & Consolidation (BPC) on SAP HANA**
 - ÿ BPC on HANA only
- ÿ **BW Check: Business Planning & Consolidation (BPC-unified) on SAP HANA**
 - ÿ BW 7.40 or higher
- ÿ **DMIS Check: SAP Landscape Transformation (SLT) for BW**
 - ÿ BW 7.30 or higher
- ÿ **ST-A/PI Check: Feasibility Check for SAP BW on HANA**
 - ÿ BW 7.0 or higher (not on SAP HANA)
- ÿ **ST-PI Check: SAP Custom Code Maintainability Check**
- ÿ **ST-PI Check: Solution Manager Integration**

5.5 BW Warehouse Management Checks (BW-WHM)

ÿ BW Check: Default Client

- ÿ Check that the default client is defined for the BW system
 - ÿ If not, update the customizing (run transaction RSA1)
- ÿ Related SAP Notes: [1730465](#)

ÿ BW Check: Source Systems

- ÿ Display activation status of source systems
- ÿ Check all source system connected to BW
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/ba/3e2a391d3cd76ee1000000a11402f/frameset.htm
- ÿ Check version interoperability within the SAP Business Suite
 - ÿ <http://wiki.scn.sap.com/wiki/display/SLGB/Version%20Interoperability%20Strategy>
 - ÿ Use the upgrade dependency analyzer to check your landscape
<http://service.sap.com/uda>
- ÿ Display number and type of data sources for each source system
- ÿ Related SAP Notes: [1388258](#), [1564964](#)

ÿ BW Check: Data Load Method

- ÿ Check if standard 7.x tRFC method or legacy 3.x methods are used (BW 7.0 or higher)
- ÿ Related SAP Notes: [1163359](#)

ÿ BW Check: InfoCube HANA-Optimization

- ÿ Display number of loaded and uncompressed requests
 - ÿ Too many uncompressed requests will lead to performance problems. It is recommended to compress requests on a regular basis.
 - ÿ Uncompressed requests will not significantly impact performance on SAP HANA but can lead to higher than necessary memory consumption.
- ÿ Check for all basic InfoCubes if they can be converted to SAP HANA-optimized version (BW 7.0 or higher)
 - ÿ It is recommended to fully compress all InfoCubes before migration to SAP HANA
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/e1/5282890fb846899182bc1136918459/frameset.htm
- ÿ Related SAP Notes: [1679974](#), [1766577](#), [1773398](#), [1780575](#)

ÿ BW Check: Non-cumulative InfoCube HANA-Optimization

- ÿ Check if new reference point updates are active (BW 7.4 or higher)
 - ÿ Run program RSDD_SWITCH_NCUM_HANDLING to activate new non-cumulative processing
 - ÿ http://help.sap.com/saphelp_nw74/helpdata/en/20/a4f6645062414bb611d24da07645f7/frameset.htm
- ÿ Related SAP Notes: [1780575](#)

- ÿ **BW Check: Data on BW Accelerator**
 - ÿ Check if any InfoCubes with BWA-only persistency exist version (BW 7.0 or higher)
 - ÿ These cannot be migrated to SAP HANA
 - ÿ Replace these InfoCubes either with a DSO or an InfoCube with DB persistency
 - ÿ Check if any VirtualProvider or query snapshots exist (BW 7.0 or higher)
 - ÿ These cannot be migrated to SAP HANA
 - ÿ Recreate the snapshots after the migration
- ÿ **BW Check: DSO HANA-Optimization**
 - ÿ Check if system supports HANA-optimized activation without conversion of standard DSOs (SAP HANA only)
 - ÿ <http://scn.sap.com/docs/DOC-41327>
 - ÿ Check for all standard DSOs if they can be converted to SAP HANA-optimized version (BW 7.0 or higher)
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/32/5e81c7f25e44abb6053251c0c763f7/frameset.htm
 - ÿ Check if MPP flag is set for DSOs
 - ÿ MPP setting is not compatible with SAP HANA. Activate the DSOs again after the migration.
 - ÿ Check consistency of HANA-optimized DSOs
 - ÿ If necessary, perform detailed check and repair using program RSSM_ANALYZE_ACT_IMO_DSO
 - ÿ Related SAP Notes: [1783330](#), [1849497](#), [1849498](#), [1873686](#)
- ÿ **BW Check: InfoProvider Conversions**
 - ÿ Check if there are any pending InfoProvider conversions
 - ÿ Wait until conversion is finished or restart. See transaction RSMIGRHANADB.
 - ÿ Related SAP Notes: [1995389](#)
- ÿ **BW Check: DSO Status**
 - ÿ Check status of DSO data loads and activation processes
 - ÿ Fix any incomplete or erroneous data loads or activation processes before the upgrade and/or migration to SAP HANA
- ÿ **BW Check: Write-optimized DSO Consistency**
 - ÿ Check consistency of request administration data
 - ÿ Fix any inconsistencies found by using the program attached to the corresponding SAP Note
 - ÿ Related SAP Notes: [1730806](#)

- ÿ **BW Check: BW Accelerator Check Sets**
 - ÿ Check if any BWA check sets exist version (BW 7.0 or higher)
 - ÿ Delete obsolete BWA check sets
- ÿ **BW Check: MultiProvider Consistency**
 - ÿ Check consistency of compounding for all MultiProviders
 - ÿ If necessary, review and fix the InfoObject mapping for the given MultiProviders
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/4a/40bf3b97ea1d0fe10000000a42189c/frameset.htm
 - ÿ Related SAP Notes: [920416](#)
- ÿ **BW Check: DataSource PSA Consistency**
 - ÿ Find inactive DataSources without PSA table or obsolete PSA tables without a DataSource (BW 7.0 or higher)
 - ÿ Repair inconsistencies using the given program
 - ÿ Related SAP Notes: [1489064](#)
- ÿ **BW Check: Background Jobs**
 - ÿ Check if any process chains are currently running (BW 7.3 or higher with SAP Note [1842621](#))
 - ÿ Stop all process chains before upgrade and/or migration to SAP HANA
 - ÿ Check if any Real-time Data Acquisition jobs are currently running (BW 7.0 or higher)
 - ÿ Stop all RDA jobs before upgrade and/or migration to SAP HANA
 - ÿ Find jobs for filling aggregates, creating DB indexes or statistics, or jobs related to BW Accelerator or related to indexing of documents
 - ÿ Stop and optionally delete all listed jobs since they are obsolete when running on SAP HANA
- ÿ **BW Check: Background Job Management**
 - ÿ Check if job for saving messages is running
 - ÿ If necessary, schedule job using transaction RSBATCH
 - ÿ Check if job for deleting old messages is running
 - ÿ If necessary, schedule job using transaction RSBATCH
- ÿ **BW Check: Background Job Fast Access Tables**
 - ÿ Check if "hashing", InfoProvider and PSA fast access tables are filled properly (BW 7.0 or higher)
 - ÿ If necessary, update the tables using transaction RSBATCH
 - ÿ Related SAP Notes: [906789](#)

- ÿ **BW Check: Aggregates**
 - ÿ Check if any aggregates exist
 - ÿ Aggregates will not be migrated to SAP HANA
 - ÿ If obsolete aggregates exist in BW on SAP HANA, you can delete them using program RS_BW_POST_MIGRATION, step 10.
- ÿ **BW Check: Process Chains**
 - ÿ Find process chains with obsolete steps
 - ÿ You can remove these steps since they are not required when running on SAP HANA using transaction RSPC
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/c1/7a2cbfe391428e9f9df7b093f42a93/frameset.htm
- ÿ **BW Check: Analysis and Repair of BW Objects**
 - ÿ Find test packages with obsolete steps
 - ÿ You can remove these steps since they are not required when running on SAP HANA using transaction RSRV
 - ÿ Check if any test packages jobs are active
 - ÿ Review if these jobs are still required when running on SAP HANA
- ÿ **BW Check: Data Transfer Processes (BDLS)**
 - ÿ Check consistency of BDSL settings
 - ÿ Fix BDSL settings according to the given SAP Note
 - ÿ Related SAP Notes: [1059278](#)
- ÿ **BW Check: Formulas in Update and Transfer Rules**
 - ÿ Check the consistency of formula references
 - ÿ If necessary, repair any broken references using the given program
 - ÿ Related SAP Notes: [884385](#)
- ÿ **BW Check: InfoObject SID Tables for Attributes**
 - ÿ Check if X/Y tables for InfoObjects are consistent and have proper primary key (SAP HANA only)
 - ÿ If necessary, repair the X/Y tables using the given program
 - ÿ Related SAP Notes: [1673420](#)
- ÿ **BW Check: InfoObject Document Properties (Metadata Search)**
 - ÿ Check if document properties are generated for all InfoObjects (BW 7.0 or higher)
 - ÿ Generate missing document properties using transaction RSODADMIN
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/4a/245930b1160456e1000000a421937/frameset.htm
- ÿ **BW Check: InfoPackage Groups**
 - ÿ Check if any InfoPackage groups are used
 - ÿ InfoPackage Groups are obsolete and replaced by Process Chains
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/43/fc5cb587e1025de1000000a1553f7/frameset.htm
 - ÿ Related SAP Notes: [955990](#)

- ÿ **BW Check: Reporting Agent**
 - ÿ Check if Reporting Agent is used
 - ÿ Reporting Agent is obsolete and replaced by Information Broadcasting
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/46/261c42b4c7e02ce10000000a1550b0/frameset.htm
 - ÿ Related SAP Notes: [955990](#)
- ÿ **BW Check: MOLAP Store**
 - ÿ Check if MOLAP is currently used (MS-SQL only)
 - ÿ MOLAP store is not supported anymore (and not relevant for SAP HANA anyway)
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/15/0a7042cff13c54e10000000a1550b0/frameset.htm
 - ÿ Related SAP Notes: [955990](#)
- ÿ **BW Check: Number Ranges**
 - ÿ Check if number ranges for master data or dimensions exist with over 1 billion values
 - ÿ Very high values are critical since number ranges are limited to 2 billion values
 - ÿ Related SAP Notes: [1331403](#)
- ÿ **BW Check: InfoSpoke**
 - ÿ Check if any InfoSpokes are still used (BW 7.4 or higher only)
 - ÿ InfoSpokes are not available as of BW 7.4. Replace them with Open Hub Destinations and DTPs.
 - ÿ http://help.sap.com/saphelp_nw74/helpdata/en/0d/321c8160a64a2ea129874fa7591fad/frameset.htm
 - ÿ Check if object entries exist for InfoSpoke DDIC structures
 - ÿ Generate the missing entries using the program attached to the corresponding SAP Note
 - ÿ Related SAP Notes: [1032635](#)
- ÿ **BW Check: Change Run**
 - ÿ Check if any attribute or hierarchy change runs are pending
 - ÿ Schedule and complete any pending change runs before upgrading or migrating the system
- ÿ **BW Check: Near-line Storage**
 - ÿ Check if connection to all NLS is working properly (BW 7.0 or higher)
 - ÿ If not, maintain the NLS connection settings in transaction RSDANLCON (and possibly in transaction DBCO)
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/60/cf63e1b1bbb49429ee6c35e6ad03a45/frameset.htm
- ÿ **BW Check: 3.x Functionality**
 - ÿ Check if 3.x functionality is hidden in Data Warehousing Workbench
 - ÿ If you don't use 3.x functionality, for example any new installation of BW 7.0 or higher), you should turn it off in transaction RSCUSTV32

- ÿ **BW Check: Data Services**
 - ÿ Check if system contains proper version of API for Data Services
 - ÿ If necessary, update the API
 - ÿ Related SAP Notes: [1912465](#)
- ÿ **BW Check: InfoPackage Transport**
 - ÿ Check if the InfoPackage object type is configured properly for transporting (BW 7.3 or higher)
 - ÿ Related SAP Notes: [1965709](#)
- ÿ **BW Check: BW Search on SAP HANA**
 - ÿ Check if the metadata and where-used search is active and configured properly (BW 7.4 or higher)

5.6 BW OLAP Technology (BW-BEX)

ÿ **BW Check: Authorization Concept**

- ÿ Check if system is configured to use analysis authorizations
 - ÿ If necessary, migrate your existing authorizations to analysis authorizations
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/4c/65fcd82f841f3ce10000000a42189c/frameset.htm
- ÿ Check if migration from 7.0 to 7.3 analysis authorizations has been completed
 - ÿ If necessary, migrate your 7.0 analysis authorizations to 7.3 analysis authorizations
- ÿ Check if characteristics OTCAIPROV, OTCAACTVT, OTCAVALID are authorization relevant
 - ÿ If necessary, set these characteristics to authorization relevant
- ÿ Related SAP Notes: [820183](#), [923176](#), [1685338](#), [1956404](#)

ÿ **BW Check: BEx Transports**

- ÿ Check if any standard or package transport requests are defined for BEx objects and check if they are released
 - ÿ Release any open BEx requests

ÿ **BW Check: BEx Query Usage and Settings**

- ÿ Count queries that have not been used during the past 90 days/the past year
 - ÿ Consider deleting old unused queries
- ÿ Count queries with read mode "A" (read all data at once)
 - ÿ Consider changing read mode to "H" or "X" (read on drill-down)
- ÿ Count queries with obsolete cache modes
 - ÿ Consider changing cache mode to "1" or "5"
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/d9/31363dc992752de10000000a114084/frameset.htm
- ÿ Count queries with non-standard BWA/HANA operations mode (BW 7.3 or higher)
 - ÿ Consider changing operation mode to "3" or "6"
- ÿ Related SAP Notes: [1164904](#)

ÿ **BW Check: BEX Query Pruning**

- ÿ Count MultiProviders/SPOs, PartProviders, and calculate ratio of PartProviders per MultiProvider/SPOs
- ÿ Display various pruning settings for MultiProviders/SPOs
- ÿ http://help.sap.com/saphelp_nw73/helpdata/en/66/bc022c66654273a9b708541bfd6372/frameset.htm
 - ÿ How to Efficiently Prune SAP BW Queries
<http://scn.sap.com/docs/DOC-32982>
 - ÿ How to Create Efficient MultiProvider Queries
<http://scn.sap.com/docs/DOC-15981>
- ÿ Related SAP Notes: [911939](#)

- ÿ **BW Check: BEx Formula Variables**
 - ÿ Find formula variables with replacement path
 - ÿ Check if variables should be replaced before or after aggregation
 - ÿ Related SAP Notes: [1005772](#)
- ÿ **BW Check: BEx OLAP Statistics**
 - ÿ Check age of oldest OLAP statistics (indicator that technical content is not used)
 - ÿ Consider transferring OLAP statistics into InfoCubes OTCT_C01 - OTCTC03
 - ÿ Related SAP Notes: [934848](#)
- ÿ **BW Check: BEx OLAP Cache**
 - ÿ Check is OLAP cache is active and that cache persistence mode is set properly
 - ÿ If necessary, fix any issues using transaction RSRCACHE
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/41/b987eb1443534ba78a793f4beed9d5/frameset.htm
- ÿ **BW Check: BEx Web Templates**
 - ÿ Check if obsolete web items are used in 3.x web templates
 - ÿ Several web items are not supported in 7.x web templates. These have to be removed or changed manually when migrating to 7.x web templates.
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/44/05cd7347bc6037e1000000a1553f6/frameset.htm
 - ÿ Count number of 7.x web templates (BW 7.0 or higher)
 - ÿ Related SAP Notes: [955990](#)
- ÿ **BW Check: BEx Bookmarks**
 - ÿ Count 3.x bookmarks (with data) that have not been used during the past 90 days/the past year
 - ÿ Consider deleting old bookmarks using program RSRRA_CLUSTER_TABLE_REORG
 - ÿ Count 7.x bookmarks that have not been used during the past 90 days/the past year (BW 7.0 or higher)
 - ÿ Consider deleting old bookmarks using program RSWR_BOOKMARK_REORG
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/43/7050769c407100e1000000a1553f7/frameset.htm
 - ÿ Related SAP Notes: [589899](#)
- ÿ **BW Check: BEx Workbooks / Crystal Reports**
 - ÿ Count 3.x, 7.x workbooks and Crystal Reports and determine total size in MB
 - ÿ 3.x workbooks might have to be adjusted if 7.x version of BEx Analyzer is used
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/f1/0a55f9e09411d2acb90000e829fbfe/frameset.htm

Y BW Check: BW Accelerator / Explorer

- Y Check if BW Accelerator is used i.e. if any BW Accelerator indexes exist (BW 7.0 or higher)
 - Y BW Accelerator functionality will be replaced by SAP HANA (no further action necessary)
- Y Display size of BW Accelerator (memory and disk)
- Y Display total number of BW Accelerator indexes
- Y Display number of InfoCube or query snapshot indexes (BW 7.30 or higher)
 - Y Snapshots will have to be re-created on SAP HANA
- Y Check if there are inconsistent entries in table RSMDATASTATE (BW 7.0 or higher)
 - Y If necessary, fix the inconsistencies according to the given SAP Note
- Y Check if BusinessObjects Explorer, accelerated version, is used (BW 7.01 or higher)
 - Y Support for Explorer on BW models in SAP HANA is planned for a future support package
- Y SAP NetWeaver BW Accelerator 7.00 News
<http://scn.sap.com/docs/DOC-7665>
- Y SAP NetWeaver BW Accelerator 7.20 News
<http://scn.sap.com/docs/DOC-8309>
- Y Related SAP Notes: [1633303](#), [1764251](#)

Y BW Check: Temporary Objects

- Y Count number of various temporary objects
 - Y If necessary, run program SAP_DROP_TMPTABLES to remove temporary objects
- Y Related SAP Notes: [1139396](#)

Y BW Check: BEx Time Characteristics

- Y Display general settings for time interval and factory calendar
- Y Check if virtual time hierarchies are activated
 - Y Optionally, activate virtual time hierarchies in transaction RSRHIERARCHYVIRT
 - Y http://help.sap.com/saphelp_nw73/helpdata/en/1f/83813ec8d3fe3ee10000000a114084/frameset.htm

Y BW Check: BEx Workspaces

- Y Check if workspaces have been backed up (BW 7.3 or higher only, no DMO)
 - Y Backup the workspaces before migration to SAP HANA
- Y Related SAP Notes: [1644694](#)

Y BW Check: BEx Frontend

- Y Display the number of BEx frontends used over the past 365 days
- Y Check if BEx 3.5 is used which is not supported as of BW 7.4
 - Y If necessary migrate any 3.x object to 7.x and use BEx 7.x tools going forward
 - Y http://help.sap.com/saphelp_nw74/helpdata/en/05/f324517b92fa50e10000000a441470/frameset.htm
 - Y http://help.sap.com/saphelp_nw74/helpdata/en/43/ea1a9a8ef44d99e10000000a155369/frameset.htm
 - Y <http://scn.sap.com/community/business-explorer>
- Y Relevant SAP Note: [1410878](#), [1932461](#)

Y BW Check: BEx Query Features

- Y Check if calculated key figures with calculation before aggregation exist (BW 7.4 or higher only)
 - Y Run a more detailed check and follow the instruction in the corresponding SAP Note
- Y Related SAP Notes: [1911469](#)

Y BW Check: Information Broadcasting

- Y Display object types used for Information Broadcasting
 - Y Replace any 3.x objects with the corresponding 7.x objects
 - Y http://help.sap.com/saphelp_nw74/helpdata/en/44/0434e34d956039e1000000a1553f6/frameset.htm

Y BW Check: SAP HANA Join Engine

- Y Check if SAP HANA Join Engine is used in general or for specific InfoProviders (SAP HANA only)
- Y Related SAP Notes: [1644957](#), [1734002](#)

Y BW Check: BEx Query Designer

- Y Check if proper version of BEx Query Designer is used (risk of losing Calculated Key Figure definitions)
 - Y If necessary, increase the required minimum version
- Y Related SAP Notes: [1989353](#)

5.7 BW Planning (BW-PLA)

ÿ **BW Check: Business Planning & Simulation (BW-BPS)**

- ÿ Check if BW-BPS is used (count number of planning areas and levels)
 - ÿ BW-BPS is not developed any further
 - ÿ Consider migrating to Integrated Planning (BW-IP)
- ÿ Related SAP Notes: [1666756](#)

ÿ **BW Check: Integrated Planning (BW-IP)**

- ÿ Check if BW-IP is used (count number of aggregation levels) (BW 7.0 or higher)
 - ÿ Consider licensing the Planning Application Kit
- ÿ Check prerequisites for planning on DataStore Objects
- ÿ Related SAP Notes: [1637199](#), [1735590](#)

ÿ **BW Check: Planning Application Kit (PAK)**

- ÿ Check consistency of fiscal year variants (BW 7.3 or higher)
 - ÿ Fix any inconsistencies using transaction GVAR
- ÿ Check if PAK is used and list status for InfoProviders and emergency switch (BW 7.3 or higher)
 - ÿ If PAK is not used, consider licensing the Planning Application Kit
- ÿ Check if BPC-unified is switched on (BW 7.4 or higher)
 - ÿ If BPC-unified is not used, consider licensing the Planning Application Kit and BPC
- ÿ Check if SAP HANA SQLScript Commands are enabled (SAP HANA only)
 - ÿ Enable SAP HANA SQLScript commands as described in the corresponding SAP Note
- ÿ Related SAP Notes: [1637148](#), [1637199](#), [1930335](#), [1939885](#), [2054183](#)

5.8 BW Modeling Tools (BW-MT)

Checks are based on [Installation Guide for Modeling Tools](#) and SAP Note [1905207](#).

- ÿ **BW Check: Release and Support Package**
 - ÿ Check if system is on BW 7.4 SP 4 or higher
 - ÿ If necessary, run the give program to drop the intermediate results
- ÿ **BW Check: Secure Network Communications (SNC)**
 - ÿ Check if SNC is active
 - ÿ Review the documentation about SNC configuration
 - ÿ http://help.sap.com/saphelp_nw74/helpdata/en/aa/38ff4fa187622fe10000000a44176d/frameset.htm
 - ÿ http://help.sap.com/saphelp_nw74/helpdata/en/e6/56f466e99a11d1a5b00000e835363f/frameset.htm
- ÿ **BW Check: Single Sign-On (SSO)**
 - ÿ Check if profile parameters are set to enable SSO
 - ÿ If necessary, maintain the adjust the profile parameters in transaction RZ10
- ÿ **BW Check: Internet Connection Manager (ICM)**
 - ÿ List of all protocols with status. HTTPS should be active
 - ÿ Configure and active HTTPS service in transaction SMICM
- ÿ **BW Check: Internet Communication Framework (ICF)**
 - ÿ Check if services sap/bw/modeling, sap/bc/webdynpro/sap/fpm_bics_ovp, and sap/bc/adt are active
 - ÿ If necessary, activate the services in transaction SICF
- ÿ **BW Check: Roles**
 - ÿ Check if user is assigned roles SAP_BC_DWB_ABAPDEVELOPER or SAP_BC_DWB_WBDISPLAY
 - ÿ Assign necessary role
- ÿ **BW Check: Authorizations**
 - ÿ Check if user has additional authorization for S_RFC, S_TCODE, and S_ADT_RES
 - ÿ Assign necessary authorizations (via a custom roles)

5.9 BW Enhanced Infrastructure (BW-EI)

- ÿ **BW Check: Analysis Process Designer**
 - ÿ Check if there are intermediate results stored from APD processes
 - ÿ If necessary, run the give program to drop the intermediate results
 - ÿ Related SAP Notes: [1476120](#)

5.10 BW System (BW-SYS)

ÿ BW Check: Generated Programs

- ÿ Check if generated programs exist that have to be re-generated for SAP HANA
 - ÿ After the migration to SAP HANA, re-generate the programs for the given program classes using transaction RSSGPCLA

ÿ BW Check: Logging, Trace, and Debug Settings

- ÿ Check if various logging, tracing, or debugging settings are turned on
 - ÿ These settings are meant to be used temporarily only. Use the given transaction or program to turn them off after the analysis of the situation is completed.
- ÿ Related SAP Notes (debugging): [302937](#), [1094013](#), [1136432](#), [1408145](#), [1409945](#), [1484984](#), [1634437](#)
- ÿ Related SAP Notes (logging): [442763](#), [670770](#), [749189](#), [967892](#), [1230098](#), [1272142](#), [1275248](#), [1533381](#), [1621974](#)

5.11 BW Technical Content (BW-BCT)

ÿ BW Check: Technical Content Status

- ÿ Check the status of pre-delivered InfoObjects. These InfoObjects should always be equivalent to the most recent BI Content version.
 - ÿ Especially, InfoObjects with newer master data read classes are pointed out. BW will not work properly without the master data read classes.
 - ÿ If necessary, activate the InfoObjects again from BI Content
 - ÿ Check if obsolete InfoObject OBCTCOMP is active and has a master data or text tables (DMO check only)
 - ÿ If possible, delete the InfoObject or remove master data and text tables
 - ÿ Check if InfoObject OTCTIOBJVAL is active and based on data element RSCHAVL (BW 7.4 or higher)
 - ÿ If necessary, convert the InfoObject as described in the corresponding SAP Note
 - ÿ Check if InfoObject OINFOPROV needs to be updated
 - ÿ If necessary, follow the instructions in the given SAP Note
 - ÿ Check if data still exists in obsolete technical content tables (BW 7.4 or higher)
 - ÿ If necessary, drop the obsolete data
 - ÿ Related SAP Notes: [1387166](#), [1695112](#), [1879618](#), [1954122](#), [1978243](#), [2176977](#)
- ### ÿ BW Check: Technical Content Activation
- ÿ Check if RSADMIN parameter is set to reduce downtime during upgrade
 - ÿ If not, consider turning the RSADMIN parameter on
 - ÿ Related SAP Notes: [1629923](#)

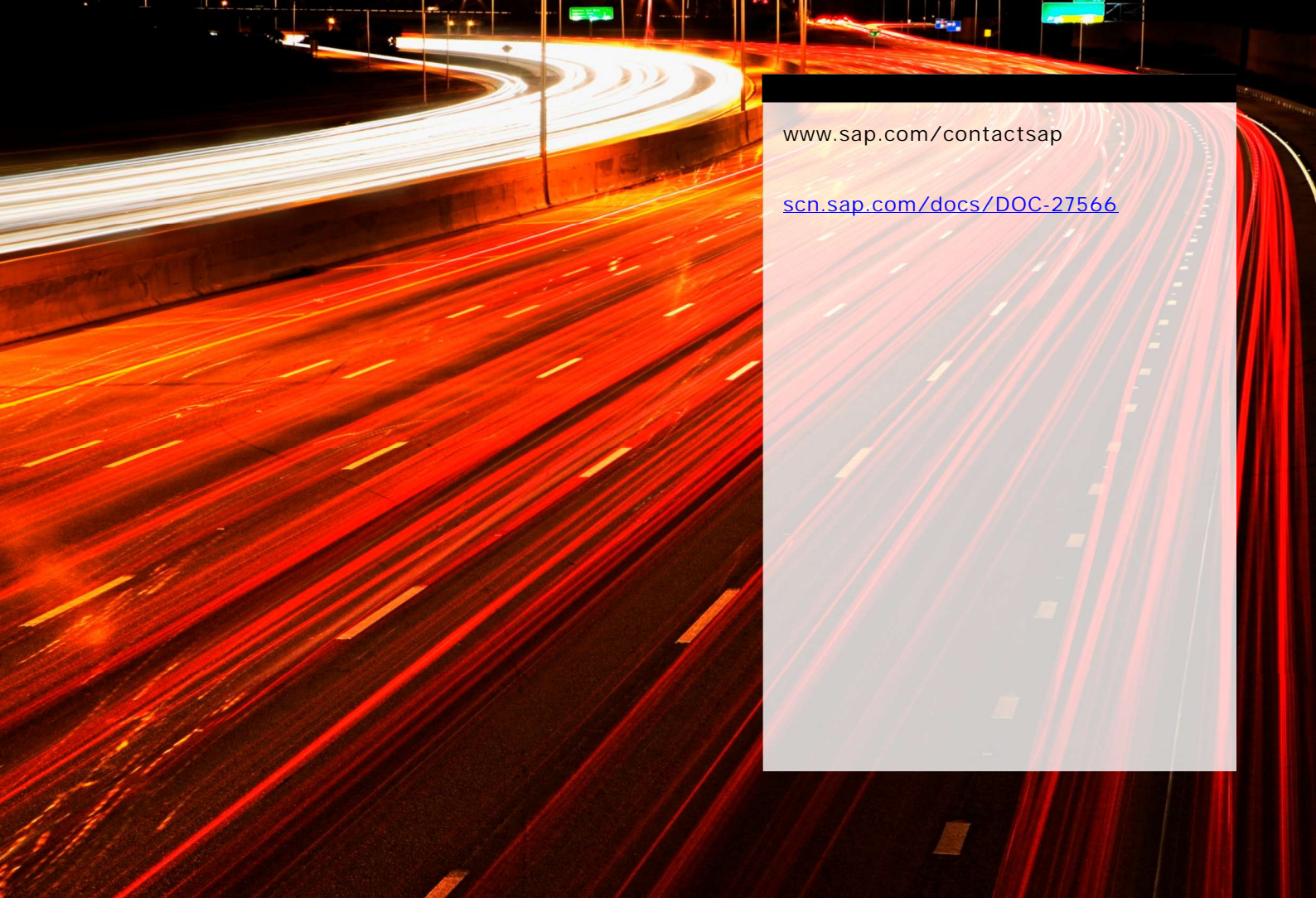
- ÿ **BW Check: After Import Processing (Transport)**
 - ÿ Check if automatic replication of BI Content is activated
 - ÿ Deactivate to speed up after-import method for transports
 - ÿ Related SAP Notes: [1272301](#)
- ÿ **BW Check: After Import Processing (Upgrade)**
 - ÿ Check if automatic replication of BI Content is activated
 - ÿ Deactivate to speed up after-import method for upgrades
 - ÿ Related SAP Notes: [1649901](#)
- ÿ **BW Check: Personalization**
 - ÿ Check if BEx personalization is active
 - ÿ If not, consider activating personalization using program RS_PERS_ACTIVATE
- ÿ **BW Check: Admin Cockpit Status**
 - ÿ Check the status of the BI Administration Cockpit
 - ÿ If necessary, re-install the Admin Cockpit using the given program
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/4e/1c145b0bf01a24e1000000a42189e/content.htm (Overview)
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/22/111d80cf794811af582803bd2243ef/content.htm (Content)
 - ÿ Related SAP Notes: [934848](#), [1538696](#), [1543092](#), [1683264](#)
- ÿ **BW Check: Obsolete 3.x DataSources**
 - ÿ Check if OTCT* 3.x DataSources exist
 - ÿ Re-install technical content or delete the obsolete DataSources
 - ÿ Related SAP Notes: [2292972](#)
- ÿ **BW Check: Internet Graphics Server (IGS)**
 - ÿ Check if IGS is configured and working properly
 - ÿ If necessary, setup IGS to support graphics in Admin Cockpit and BEx web templates
- ÿ **BW Check: Demo Content for Features**
 - ÿ Check if demo content is installed (it's a great way to learn about the BW Analytical Features!)
 - ÿ You can install the content via transaction RSFC
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/47/addc08e04b1599e1000000a42189c/frameset.htm
- ÿ **BW Check: SAP HANA-optimized Content**
 - ÿ Check if business function switch is turned on to enable SAP HANA-optimized content (only BI Content 7.37/7.47 or higher)
 - ÿ You can check the business functions and switches in transaction SFW5
 - ÿ http://help.sap.com/saphelp_nw73/helpdata/en/28/a1065182d3c557e1000000a44176d/frameset.htm
 - ÿ Related SAP Notes: [1817520](#)

5.12 Customer Objects

- ÿ **Customer/Partner Namespaces**
 - ÿ Find objects in customer or partner namespaces (separated between BW and other objects)
 - ÿ Check if the objects are compatible with SAP HANA
- ÿ **Custom Applications Check**
 - ÿ Find objects in custom development packages (separated between BW and other objects)
 - ÿ Check if the objects are compatible with SAP HANA
- ÿ **BW 7.40 Compatibility**
 - ÿ Check compatibility of DDIC tables and views with BW 7.4
 - ÿ FAQ: Technical limitations of InfoProviders and Characteristics in BW
 - ÿ See SAP Notes [1823174](#) and [1837308](#)

5.13 Post Copy Automation Tool

- ÿ **PCA Check: BW System**
 - ÿ Check if minimum support package is installed to support the PCA Tool
 - ÿ Related SAP Notes: [1707321](#), [1621867](#)
- ÿ **PCA Check: Source Systems**
 - ÿ Check if minimum support package is installed to support the PCA Tool
- ÿ **PCA Checks: DataSources for Multiple BW Systems**
 - ÿ Check if DataSources support loading into multiple BW target systems
 - ÿ Related SAP Notes: [1932459](#)
- ÿ **PCA Check: BDLS for BW Status Manager**
 - ÿ Check if BDLS is not configured properly to adjust BW status manager tables
 - ÿ If necessary, maintain table BDLSEXT as described in the
 - ÿ Related SAP Notes: [2017824](#)
- ÿ **Note:**
 - ÿ A detailed prerequisite check for the PCA Tool is available with SAP Note [1614266](#)



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