

SAP® MaxDB™ Expert Sessions

Session 7: SAP MaxDB Software Update Basics



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THE BEST-RUN BUSINESSES RUN SAP™





- Getting general knowledge about upgrading/patching
- Which tools are available for this purpose
- How to check the result
- Session covers SAP MaxDB versions 7.6 and 7.7 but ends with a view to upcoming version 7.8
- Makes it easier to learn the ropes

Agenda



1. Introduction

- 1.1. Structure of a SAP MaxDB software installation
- 1.2. Interpreting SAP MaxDB version string
- 1.3. Difference of SAP MaxDB upgrade and patch

2. SAP MaxDB software packages for SAP systems

- 2.1. Product Availability Matrix (PAM)
- 2.2. Installation / Upgrade DVD
- 2.3. Installation / Upgrade Guides
- 2.4. Support Portal (Software Distribution Center)

3. Tools to perform a SAP MaxDB upgrade / patch

- 3.1. Overview of tools to be used in SAP environments
- 3.2. SDBSETUP (Installation Manager)
- 3.3. SDBUPD
- 3.4. SDBINST

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4. Uninstall a SAP MaxDB installation
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Agenda



Please read the notes of the slides !

Agenda



1. Introduction

2. SAP MaxDB software packages for SAP systems

3. Tools to perform a SAP MaxDB upgrade / patch

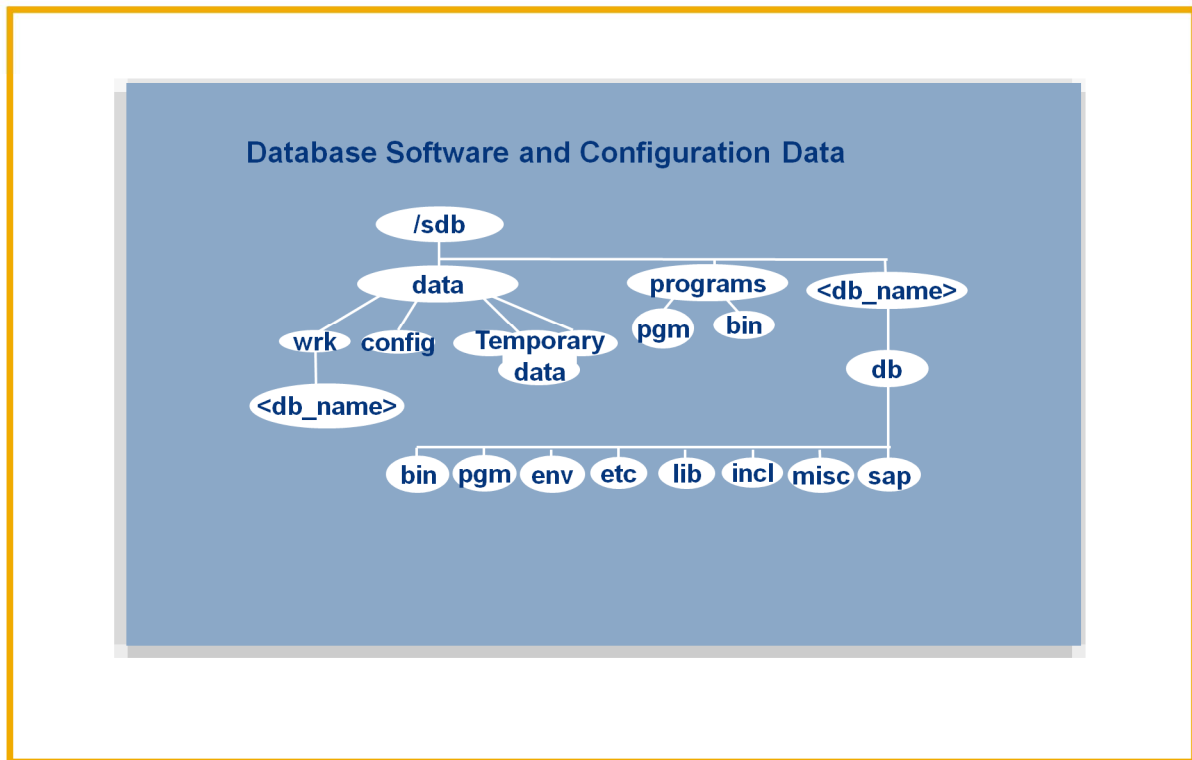
4. Uninstall a SAP MaxDB installation

5. Tools to check a SAP MaxDB installation

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1. Introduction

1.1. Structure of a SAP MaxDB software installation



The so-called “independent data directory” (e.g. /sdb/data) contains the configuration data and rundirectories of SAP MaxDB instances.

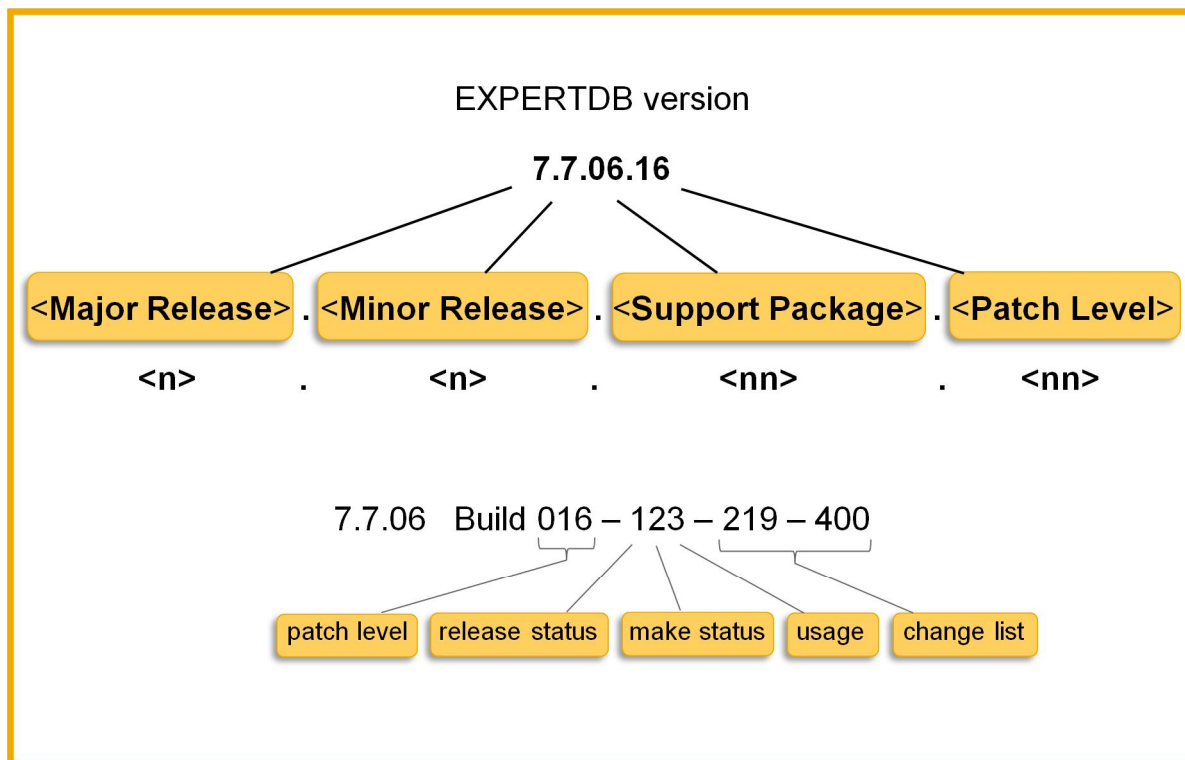
Furthermore the so-called “independent programs directory” (e.g. /sdb/programs) contains programs and libraries shared by the SAP MaxDB instances and SAP MaxDB applications. These programs are downwards compatible. The location of these directories is specified during the first installation of SAP MaxDB software. They exist only once on the server.

The “installation path” (e.g. /sdb/<db_name>/db) contains the server software that depends on the database version (e.g. kernel). Several dependent directories can exist alongside each other.

The work directory (called “rundirectory” in SAP MaxDB installations, e.g. /sdb/data/wrk/<db_name>) contains the log files of a SAP MaxDB instance and is the most important directory for monitoring and error analysis.

1. Introduction

1.2. Interpreting SAP MaxDB version string



SAP MaxDB version string contains:

- Major release (single-digit)
- Minor release (single-digit)
- Support package (two-digit)
- Patch level (two-digit)

Support Packages will be created approximately once each quarter. The scheduling of Support Packages will be based on the scheduled timeline for SAP applications. Support Packages contain both corrections for errors and functional enhancements.

Patch levels will be created more frequently than Support Packages in accordance with customer requirements and, in particular, in response to known errors. Only high-priority errors will be corrected. Corrections for delivered versions always result in a new Patch level number.

In database log files, for instance KnIMsg, you will find the database kernel version with build number of 12 digits. The first 3 digits represent the Patch level followed by 3 digits indicating the release status, the make status and the usage. The last 6 digits specify the change list number which uniquely identifies the underlying module amount and module instance of the MaxDB version.

Release status: 0 test / development, 1 productive

Make status: 0 DEV, 1 COR, 2 RAMP, 3 HOT, 4 ANA, 5 SEC

Usage: 0 no classification, 1 OLTP only, 2 liveCache only, 3 all, 4 DQE, 5 IMDB

Release status = 1 and make status = 2 should be set in productive systems.

1. Introduction

1.3. Difference of SAP MaxDB upgrade and patch



Database upgrade

- change of database version to a newer major or minor release (for example 7.6 to 7.7)
- often in connection with upgrade of the SAP application software
- relevant software CDs or DVDs are provided and have to be used
- upgrade guides for the relevant target releases and operating systems are available in SAP Support Portal

Database patch

- change of database version to a newer Support Package or Patch Level (for example 7.7.05 to 7.7.07 or 7.7.06.16 to 7.7.06.17)
- independent from a change to a newer release of the relevant SAP application software (except liveCache patches)
- software packages are available on SAP Support Portal (Software Distribution Center)
- SAP note **498036**: Overview note for importing MaxDB/liveCache versions

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2. SAP MaxDB software packages for SAP systems

3. Tools to perform a SAP MaxDB upgrade / patch

4. Uninstall a SAP MaxDB installation

5. Tools to check a SAP MaxDB installation

6. Useful information resources

2. SAP MaxDB software packages for SAP systems

2.1. Product Availability Matrix (PAM) [1]



PRODUCT AVAILABILITY MATRIX
FIND GENERAL AND RELEASE INFORMATION ON SAP SOFTWARE PRODUCT VERSIONS.

The Product Availability Matrix (PAM) bundles technical and release planning information on SAP software product versions for quick reference. You find detailed information on their availability dates, maintenance end dates and upgrade paths, as well as technical release information (DB-platforms, JSE-platforms, operating systems etc.).

The technical release information is displayed per product instance. What is a product instance? A SAP product version is structured into instances. A product instance is a bundle of technically dependent software component versions to be installed on one single logical system. Example: The product version [SAP NetWeaver 7.0](#) is structured into the instances 'Application Server ABAP', 'Application Server Java', 'Enterprise Portal', 'Frontend' etc. The 'Application Server ABAP' itself consists mainly of the software component versions SAP BW 7.00, SAP ABA 7.00, SAP BASIS 7.00 and SAP Kernel 7.00 32-BIT (or a newer downward compatible one).

Have a look into the [PAM Basics presentation](#) to get started. General information about SAP's release strategy is available under [/releasestrategy](#).

Search in PAM

Tip: Looking for "BI/BW", "PI/XI", "Portal" or "ADS" in the versions 04 or 7.0x? They are part of SAP NetWeaver.

Quick links and additional information

Quick Navigation to top 10 most viewed Product Version

SAP NetWeaver 7.0	SAP ERP 6.0	SAP NetWeaver 04	SAP ECC 6.0 (part of SAP ERP 6.0)	SAP CRM 7.0 / NW7.01
SAP R/3 4.6C	SAP Solution Manager 7.0	SAP R/3 ENTERPRISE 47X200	SAP CRM 2007	SAP NetWeaver PI 7.1

Quick Navigation to ...

OS information for:	SAP GUI	SAP ITS 6.20	TREX 6.1	TREX 7.00 / 7.10
Browser information for:	SAP NetWeaver 7.0 (page 7) and SAP EHP1 FOR SAP NETWEAVER 7.0 (page 9)			
SP / SP Stack (SPS) information:	SP Stack Details	Support Packages in Detail		

Quick Views

Regarding MaxDB upgrade:

Make sure that an official MaxDB release exists for the respective SAP product version before using these MaxDB versions.

Consult the SAP Product Availability Matrix (PAM) for SAP release information. Go to:

<http://service.sap.com/pam>

and select your SAP product version, for instance 'SAP NetWeaver 7.0'

2. SAP MaxDB software packages for SAP systems

2.1. Product Availability Matrix (PAM) [2]



The screenshot shows the SAP Support Portal interface. The main content area displays the Product Availability Matrix for SAP NetWeaver 7.0. The 'Database Platforms' tab is highlighted. Below the main content, a pop-up window titled '> Releases Application Server ABAP Database Platforms SAP KERNEL 7.00 32-BIT MAXDB...' is open, showing a table of released database versions.

Released Database Version	Operating System Version	Date (Internal)	Status (Internal)	Date (External)	Status (External)	System Status	Remarks
MAXDB 7.6	WINDOWS SERVER 2003/IA32 32BIT	21.10.2005	Released	24.10.2005	Released		
MAXDB 7.7	WINDOWS SERVER 2003/IA32 32BIT	04.02.2009	Released	04.02.2009	Released		

For SAP NetWeaver 7.0 MaxDB version 7.6 and 7.7 already released but not MaxDB version 7.8 until now.

2. SAP MaxDB software packages for SAP systems

2.2. Installation / Upgrade DVD



SAP SUPPORT PORTAL my Profile | my Inbox | my Favorites

HOME | Help & Support | Downloads | Keys & Requests | Data Administration | Maintenance & Services | Application Life-Cycle Management | Release & Upgrade Info | Knowledge Exchange

SAP Software Distribution Center | SAP Installations & Upgrades | SAP Support Packages | Business Objects Downloads | Database Patches | Download Basket | Additional Download Info

You are here: **Installations and Upgrades**

SAP INSTALLATIONS & UPGRADES

THE COMPLETE SUITE OF SAP INSTALLATIONS AND UPGRADES

There are several ways to access installation files in the new Software Distribution Center.

Either choose 'My Company's Application Components' to see a list of all components that your licenses entitle you to download. The list is sorted alphabetically and also includes small components that are part of several products (like SAP GUI, SAP Plug-Ins, and so on).

Alternatively, choose 'Entry via Application Groups' to see the any of following groups, depending on your licenses:

- SAP Application Components (SAP ERP, SAP R/3 Enterprise, SAP CRM, SAP SCM, SAP SRM, SAP SEM)
- SAP Industry-specific Components (SAP Banking, SAP Discrete Industries, SAP High Tech)
- SAP NetWeaver and the components SAP BW, SAP Web AS, SAP Enterprise Portal, SAP Exchange Infrastructure, and SAP Mobile Engine
- SAP Technology Components (SAP Solution Manager)
- Composite Applications (Industry Composites Applications, SAP XEM, SAP XPD, SAP XRPM)
- Country-specific Add-Ons (SAP HR-CEE, CCIS, C-CEE, HR-CIS)
- Supplementary Components for Cross Industry Solutions (BackWeb Infocenter, Life-Cycle Data Management, SAP Realcar Management, SAP Workforce Management)
- SAP Best Practices
- SAP and BusinessObjects packages
- SAP Frontend Components (SAP GUI, SAP ITS, SAP IGS)
- Plug-Ins (SAP Plug-Ins, SAP Solution Tools Plug-Ins)
- Miscellaneous Components (SAP Kernel)

Another option is to use the predefined search function for SAP installations and upgrades.

Shortcuts

- [License Key Request](#)
Request a license key online through the SAP Service Marketplace
- [Installation and Upgrade Guides](#)
Find technical documentation for all SAP applications

Do you want to return to this topic quickly?
Quick Link www.service.sap.com/installations

The DVDs for SAP MaxDB upgrade are contained in the SAP upgrade DVD packages for SAP upgrades. You can download or order them via the Software

Distribution Center (SWDC). Just go to:

<http://service.sap.com/swdc>

-> Download

-> Installations and Upgrades

2. SAP MaxDB software packages for SAP systems

2.3. Installation/Upgrade Guides



The screenshot displays the SAP Support Portal interface. The top navigation bar includes the SAP logo, 'SUPPORT PORTAL', and a search bar. Below this, there are links for 'my Profile', 'my Inbox', 'my Favorites', 'Quick Links', 'Sitemap', 'Other Portals', 'Glossary', and 'Help'. The main navigation menu lists various categories such as 'HOME', 'Help & Support', 'Downloads', 'Keys & Requests', 'Data Administration', 'Maintenance & Services', 'Application Life-Cycle Management', 'Release & Upgrade Info', and 'Knowledge'. The 'Release & Upgrade Info' section is expanded to show 'Installation & Upgrade Guides'. The left sidebar shows a tree view of the navigation structure, with 'SAP MaxDB' selected under 'Database Upgrades'. The main content area displays a list of documents for SAP MaxDB, including an installation manual and several upgrade guides for different versions and operating systems. A table below the text provides details for each document.

To sort, click on the appropriate column header. You can sort in ascending or descending order by clicking on the orange arrow.

To download a document, right-click the icon and choose "Save target as ..."

File Type	Title	Lang.	Changed	Size [KB]
	Installation Manual MaxDB	E	06.02.2008	1345
	Upgrade to MaxDB Version 7.6.00: UNIX	E	15.09.2006	706
	Upgrade to MaxDB Version 7.6.00: Windows	E	12.07.2006	694
	Upgrade to MaxDB Version 7.7: UNIX	E	15.08.2008	1583
	Upgrade to MaxDB Version 7.7: Windows	E	15.08.2008	1524
	Upgrade to MaxDB Version 7.5.00: UNIX	E	09.05.2006	297
	Upgrade to MaxDB Version 7.5.00: Windows	E	07.09.2005	289
	Upgrade to SAP DB Version 7.4.03: UNIX	E	22.01.2004	662
	Upgrade to SAP DB Version 7.4.03: Windows	E	22.01.2004	329
	Upgrade to SAP MaxDB Version 7.8: UNIX	E	22.12.2009	993
	Upgrade to SAP MaxDB Version 7.8: Windows	E	22.12.2009	980

Quick Link Information
Access this topic directly at
<http://service.sap.com/instguides>

Details about performing SAP MaxDB upgrade are contained in the upgrade guide which are available in the SAP Support Portal. For a current version of the upgrade guide go to:

<http://service.sap.com/instguides>

-> Database Upgrades

-> SAP MaxDB

2. SAP MaxDB software packages for SAP systems

2.4. Support Portal (Software Distribution Center) [1]



The screenshot shows the SAP Support Portal interface. The main content area is titled "MAXDB AND SAP DB SOFTWARE DOWNLOAD FOR UNIX AND WINDOWS". It contains several sections: "General Product Information" with a paragraph about downloading software and a link to the Product Availability Matrix (PAM); "Version Numbering" explaining the format of version numbers (e.g., 7.6.00.31) and a note about the change in meaning for versions 7.6.*; and "Download Links" which lists "MaxDB" and "MAXDB 64-BIT" as download options. The "MaxDB" link is highlighted with a red box. The left sidebar shows a navigation menu with "MaxDB and SAP DB" selected. The top navigation bar includes "SUPPORT PORTAL" and various menu items like "HOME", "Help & Support", "Downloads", etc.

Regarding MaxDB patches:

SAP MaxDB patches are available via SAP Support Portal in SAP Software Distribution Center. Go to:

<http://service.sap.com/swdc>

-> Database Patches

-> MaxDB and SAP DB

Please note: Within scope of SAP systems (using MaxDB as database for SAP application software) MaxDB patches have to be downloaded from SAP Software Distribution Center.

The MaxDB installation packages which are called Community Editions and are offered via SAP Community Network don't meet the requirements for an SAP system.

2. SAP MaxDB software packages for SAP systems

2.4. Support Portal (Software Distribution Center) [2]



MAXDB

MAXDB -> MAXDB 7.7

MAXDB 7.7

- [Linux on IA32 32bit](#)
- [Windows Server on IA32 32bit](#)

Info Page Downloads

MAXDB 7.7 -> Windows Server on IA32 32bit

You can download one or more files by activating the check box on the left and clicking the button "Add to Download Basket". Please [click here for more detailed information](#). Click on to request Side Effects report.

[Add to Download Basket](#) [Maintain Download Basket](#) [Select All](#) [Deselect All](#)

The following objects are available for download:

	File Type	Download Object	Title	Patch Level	Info File	File Size [kb]	Last Changed
<input type="checkbox"/>	SAR	MAXDB7707_15-10004362_SAR	MAXDB 7.7.07.15 Server Package	15	Info	174535	17.02.2010
<input type="checkbox"/>	SAR	MAXDBRART7707_15-10004362_SAR	MAXDB 7.7.07.15 Application Runtime Package	15	Info	60472	17.02.2010
<input type="checkbox"/>	SAR	MAXWEB7707_15-10004362_SAR	MAXDB 7.7.07.15 Web Services Package	15	Info	27228	17.02.2010

[Add to Download Basket](#) [Maintain Download Basket](#) [Select All](#) [Deselect All](#)

For instance: MaxDB -> MAXDB 7.7 -> Windows Server on IA32 32bit

At this time you can download MaxDB Server Package of version 7.7.07.15.

Additionally you will find MaxDB Application Runtime Package which contains MaxDB client software and MaxDB Web Services Package which contains the Java-based WebDAV servlet.

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2. SAP MaxDB software packages for SAP systems

3. Tools to perform a SAP MaxDB upgrade / patch

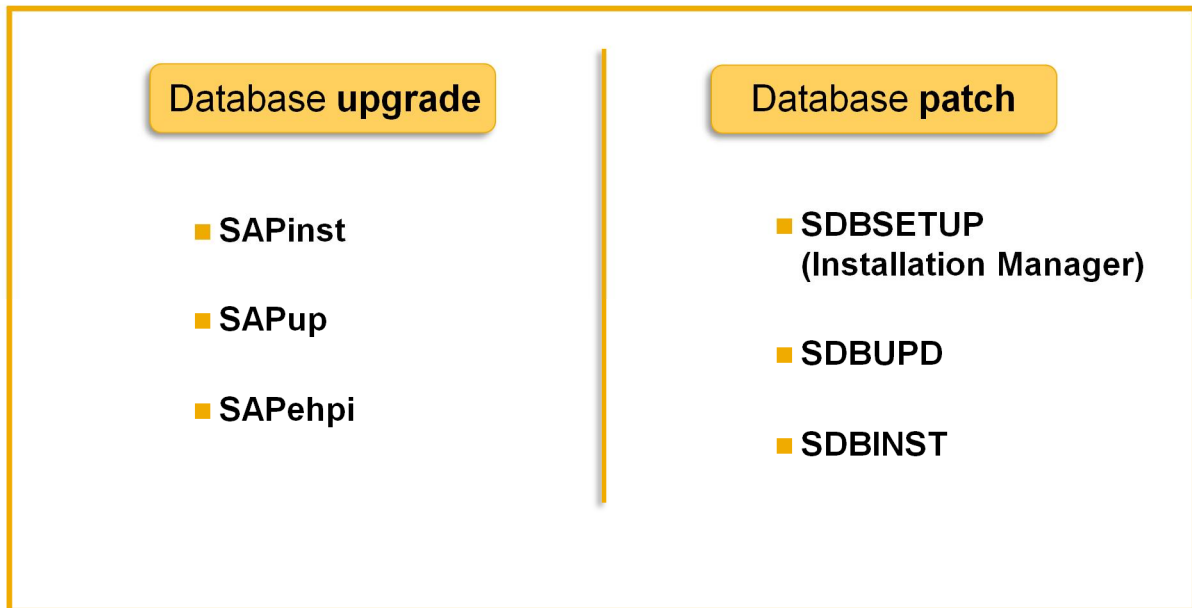
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3. Tools to perform a SAP MaxDB upgrade / patch

3.1. Overview of tools to be used in SAP environments



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It is very important to pay attention to:

In a SAP environment a MaxDB upgrade (change of database version to a newer major or minor release) is only allowed via the following SAP tools :

- ~ SAPInst (new installation, system copy and migration (homogeneous/heterogeneous))
- ~ SAPup (SAP upgrade (upgrade of existing installations) and AddOn installations)
- ~ SAPehpi (installation of SAP enhanced packages)

These SAP tools consider the relevant dependencies between SAP application software versions and MaxDB version. They execute the MaxDB installation and upgrade tools internally and embedded into the entire upgrade process. The mentioned SAP tools are provided with the corresponding SAP DB RDBMS DVD.

Applying MaxDB patches (change of database version to a newer MaxDB support package or patch level) can be done directly with the MaxDB installation and upgrade tools

provided with the MaxDB installation software packages (SDBSETUP, SDBUPD, SDBINST). These tools are also able to perform a MaxDB upgrade. But as mentioned before in association with SAP application software it is not allowed to use them directly for a MaxDB upgrade.

3. Tools to perform a SAP MaxDB upgrade / patch

3.2. SDBSETUP (Installation Manager) [1]



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The following examples deal with the MaxDB database named EXPERTDB which was installed for the expert sessions. It is used for the present slides and the demonstration parts.

There is no SAP application software attached to database EXPERTDB. The session will focus on MaxDB tools and their usage.

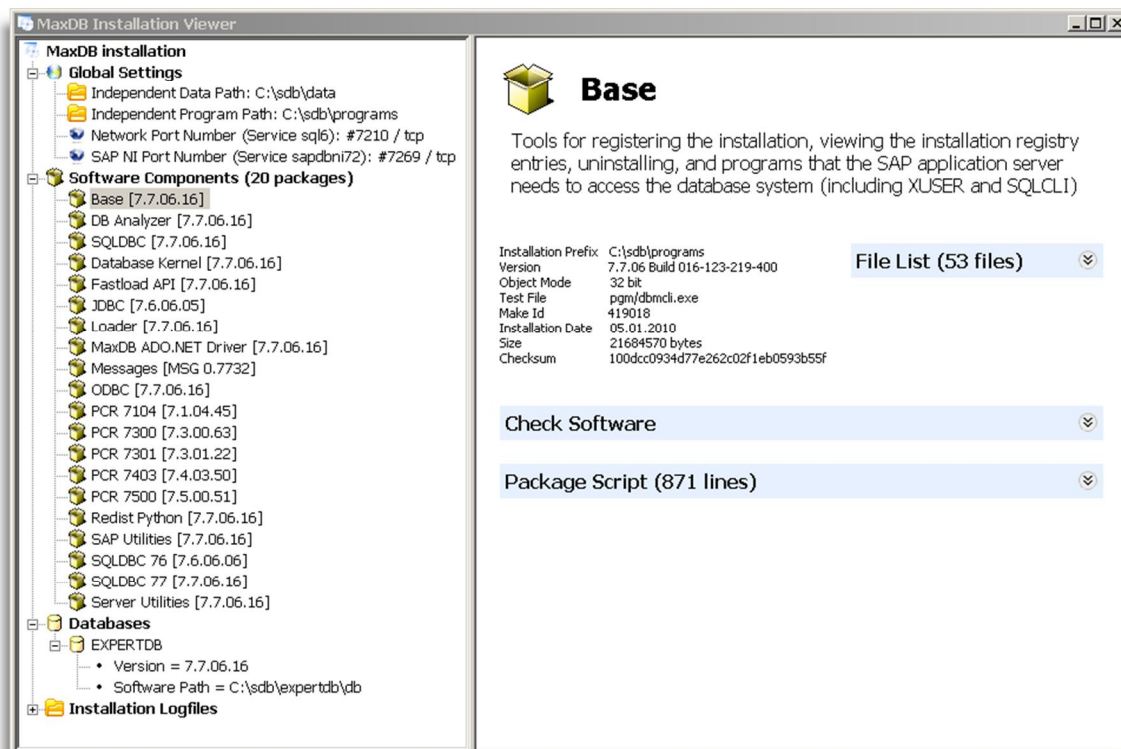
SDBSETUP is the installation / upgrade tool which provides a graphical user interface and is called 'Installation Manager'.

It is located within the installation software package as an executable file also called SDBSETUP and offers 4 options:

- ~ Start installation/upgrade: to be used for installation and upgrade of SAP MaxDB software components
- ~ Show MaxDB components: to be used for displaying global installation settings, software components, databases and installation /upgrade log files
- ~ Remove MaxDB components: to be used for uninstalling software components, dependencies are taken into account
- ~ Visit MaxDB website: starts the configured standard internet browser and calls SAP MaxDB's homepage <http://www.sdn.sap.com/irj/sdn/maxdb>

3. Tools to perform a SAP MaxDB upgrade / patch

3.2. SDBSETUP (Installation Manager) [2]



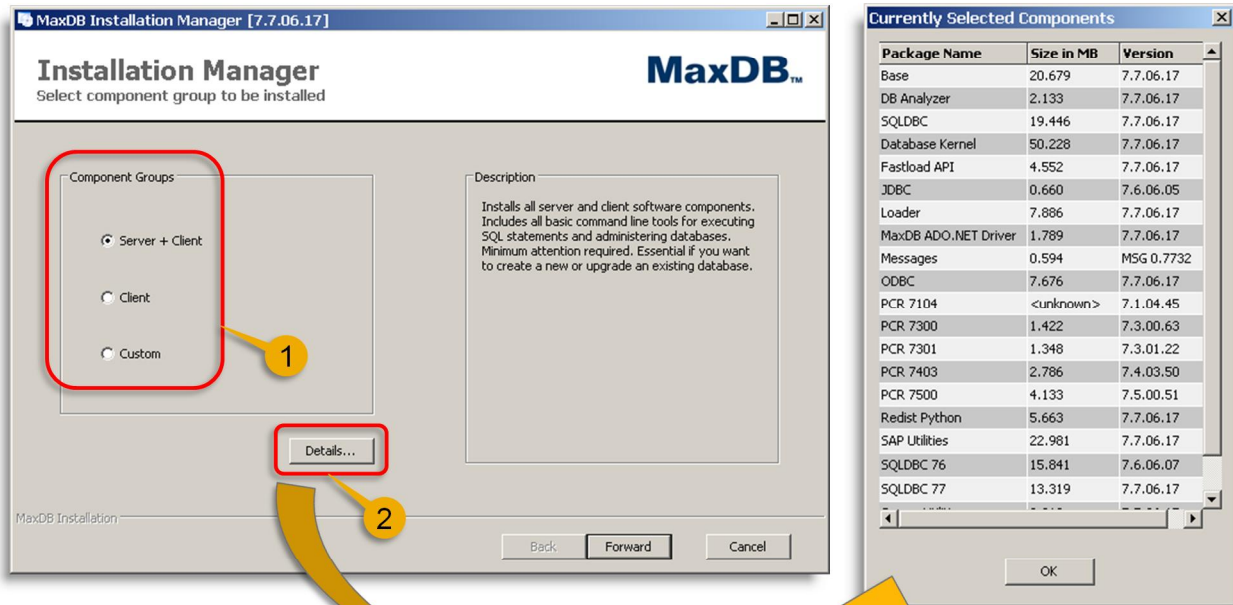
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Choose 'Show MaxDB components' to get an overview what software components of what version in terms of software packages are installed. Selecting a package displays a short description of the corresponding content on the right hand side.

In addition the location of the independent software parts and the used network ports are shown (upper left area). Finally existing databases are listed as well as installation log files can be viewed.

3. Tools to perform a SAP MaxDB upgrade / patch

3.2. SDBSETUP (Installation Manager) [3]



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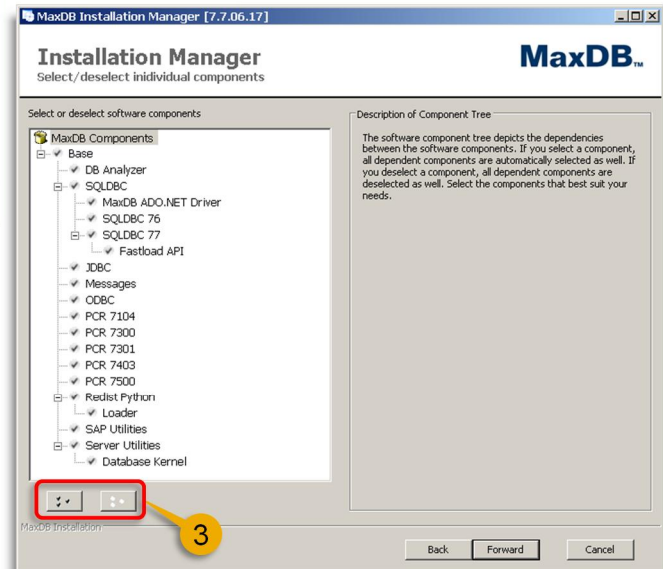
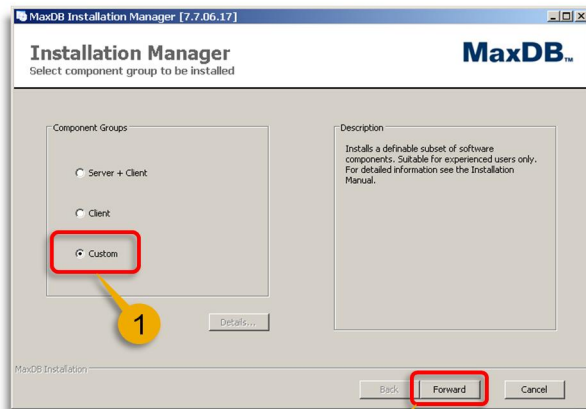
Initial situation for the following example: There is one MaxDB software installation of version 7.7.06.16 on the server and a MaxDB instance called EXPERTDB based on it. Intention is to upgrade this software installation as well as the database instance to version 7.7.06.17. So SDBSETUP of the installation software package 7.7.06.17 has to be used.

Choosing 'Start installation / upgrade' on the first screen of the Installation Manager allows to select software component groups to specify the intended scope. It is possible to install / upgrade MaxDB client software only or both MaxDB client and MaxDB server software together (1).

For options 'Server + Client' and 'Client' button 'Details...' is active. Using this button opens a list of packages which belong to the selected component group.

3. Tools to perform a SAP MaxDB upgrade / patch

3.2. SDBSETUP (Installation Manager) [4]

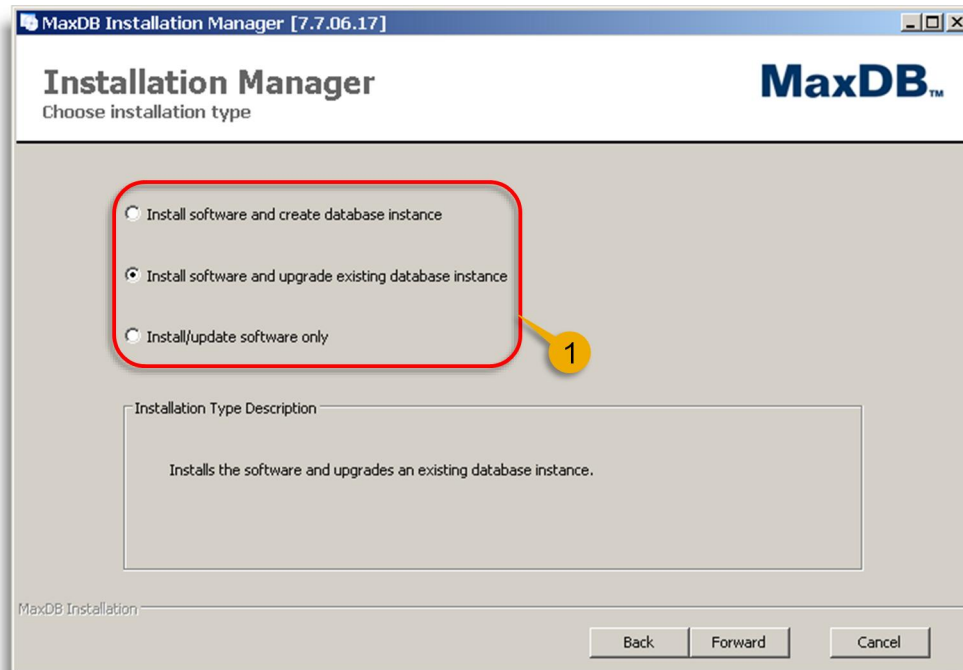


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Choosing 'Custom' in section 'Component Groups' (1) requires to get forward using the identically named button (2). The next screen appears allowing to select the requested software components to be installed. Components in the list which have the check mark are booked for the upcoming installation / upgrade. Dependencies between the components are considered by the tool. Using the buttons below the list makes it possible to select resp. deselect all list items at once (3).

3. Tools to perform a SAP MaxDB upgrade / patch

3.2. SDBSETUP (Installation Manager) [5]



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After the software component selection has been finished it comes to the decision whether in addition to the software installation an existing database instance should be upgraded, too (1).

The given options means:

- 'Install software and create database instance' :

Installation Manager will install the software in parallel to the existing one, e.g. upgrade the independent software parts to the new version, install the dependent parts into a new directory tree and create a database instance based on the new software version

- 'Install software and upgrade existing database instance' :

Installation Manager will upgrade the existing software to the new version as well as upgrade the existing database instance which will be based on the new software version afterwards

- 'Install/update software only' :

Installation Manager will install the new database software. If other MaxDB installations of older versions were found it is possible to select one of those for an upgrade. If no one is chosen the new software will be installed in parallel to the existing ones. Please be aware: Independent software parts are upgraded to the new version in any case.

If the decision has been made choosing button 'Forward' is heading towards the next step.

3. Tools to perform a SAP MaxDB upgrade / patch

3.2. SDBSETUP (Installation Manager) [6]



Parameter	Value
Database Name	EXPERTDB
Software Version	7.7.06.16
Software Path	C:\sdb\expertdb\db
Update State	New Update

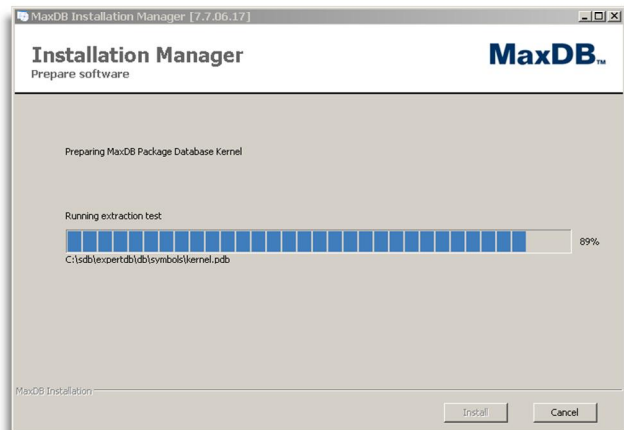
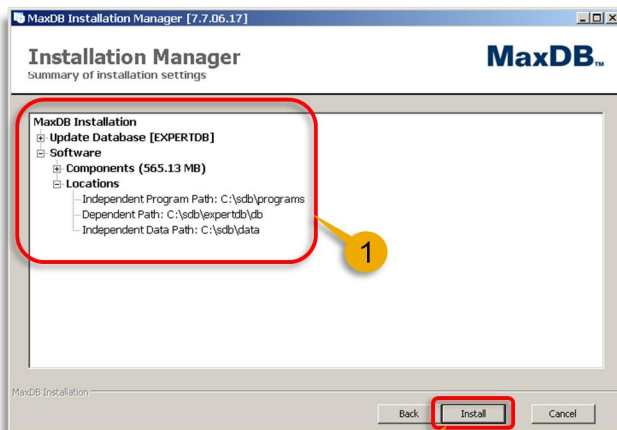
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This screen asks for user name and password of the database system administrator. This ensures that the installation / upgrade can be executed only by eligible persons.

On the right hand side of the screen some information about the current state of the process are shown. Choosing button 'Forward' concludes this step.

3. Tools to perform a SAP MaxDB upgrade / patch

3.2. SDBSETUP (Installation Manager) [7]

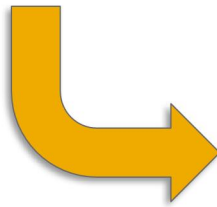
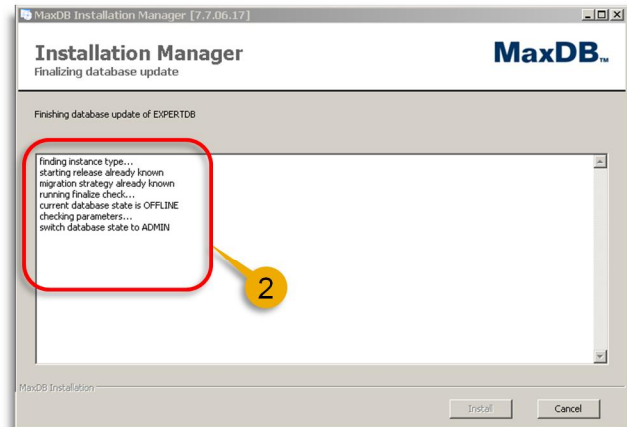
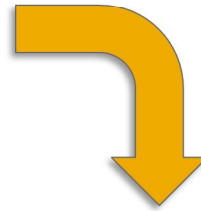
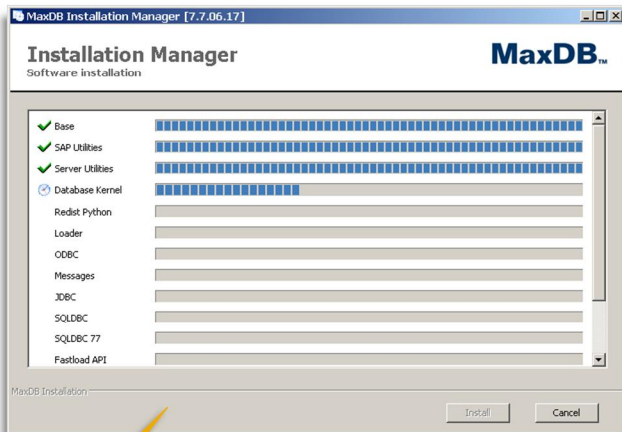


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Now the final preparation step has been reached. This screen summarizes the settings for the pending installation / upgrade. If no changes are required it can be started by use of button 'Install'. This at first starts unpacking the software packages and prepares them for effective applying. A progress bar allows to keep track of this process.

3. Tools to perform a SAP MaxDB upgrade / patch

3.2. SDBSETUP (Installation Manager) [8]

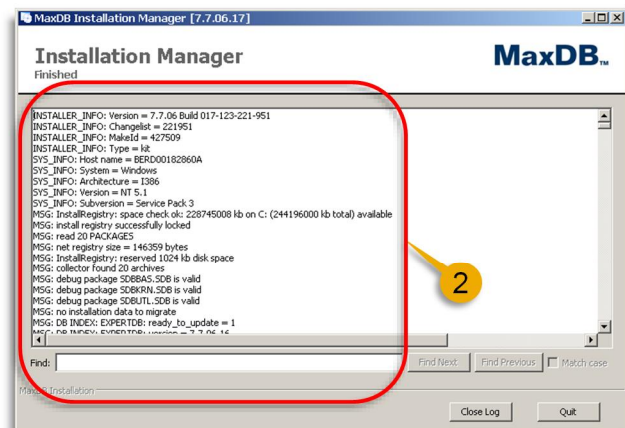
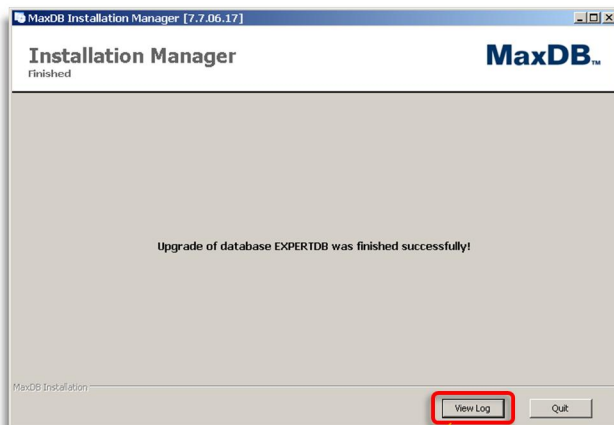


Once the preparation phase has been finished the software installation / upgrade starts. For each component the progress can be monitored by a corresponding bar (1).

If a database instance is upgraded as well the executed steps can be observed by the list which is displayed in an additional screen (2). The database instance will be in state ONLINE after upgrade has been finished.

3. Tools to perform a SAP MaxDB upgrade / patch

3.2. SDBSETUP (Installation Manager) [9]



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Finally a completion screen is shown presenting the success message. At the lower right hand side there are buttons to quit as well as to display the installation log file (1).

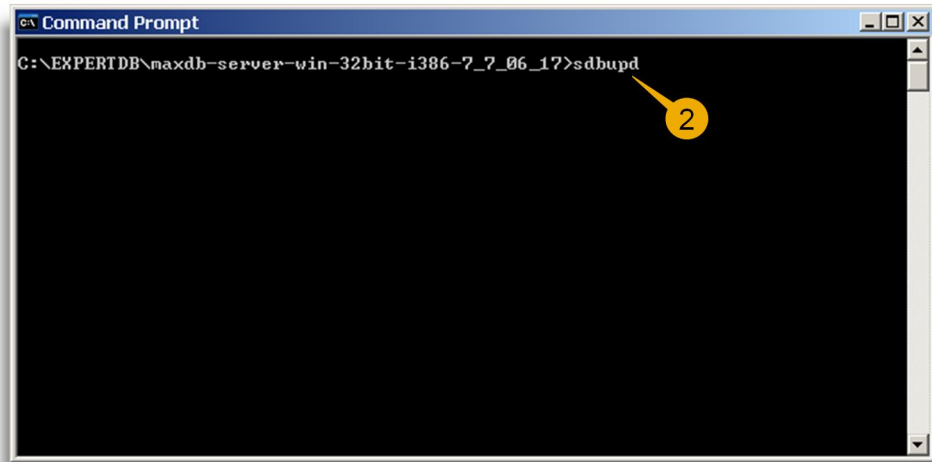
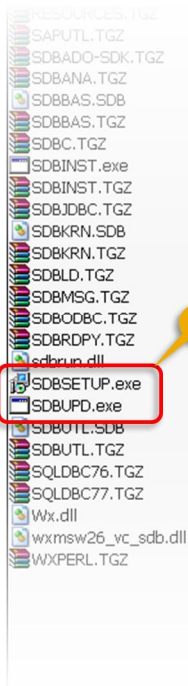
Using this 'View Log' button calls a further screen with the log file opened including an option to search for specific messages/terms (2).

For later reference the upgrade log file can be checked again. All installation and upgrade log files are located in directory '<independent data path>/wrk'. If <independent data path> just cannot be remembered it can be figured out easily by dbmcli command 'dbm_getpath IndepDataPath'. The upgrade log files of SDBSETUP always comply with the following naming convention: 'MaxDBSoftware_install-<time stamp>.log'. Time stamp represents the point in time when the upgrade finished and is given as dd.mm.yyyy-hh.mm.

In the example above it is 'MaxDBSoftware_install-03.02.2010-12.24.log' (2).

3. Tools to perform a SAP MaxDB upgrade / patch

3.3. SDBUPD [1]



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SDBUPD is the command line tool to perform an update of a MaxDB software installation including a database instance based on it. It cannot be used to install a MaxDB software installation from scratch or in parallel to already existing versions on a specific server.

SDBUPD is located as an executable file within the MaxDB installation software package (1). A command prompt screen has to be opened in the directory where the installation software package has been copied to. To start the upgrade SDBUPD has to be typed followed up by pressing the enter key (2).

For the following example a switch back is done to the same initial situation: There is one MaxDB software installation of version 7.7.06.16 on the server with database instance EXPERTDB based on it. Intention is to upgrade MaxDB software and instance EXPERTDB to version 7.7.06.17.

3. Tools to perform a SAP MaxDB upgrade / patch

3.3. SDBUPD [2]

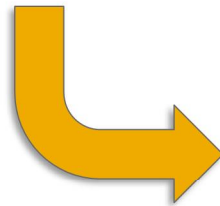
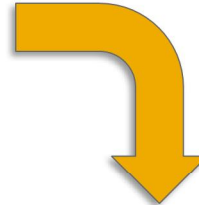


```
Command Prompt - sdbupd
C:\EXPERTDB\maxdb-server-win-32bit-i386-7_7_06_17>sdbupd

MaxDB INSTANCE UPDATE
*****

starting installation We, Feb 03, 2010 at 12:13:30
operating system: Windows I386 NT 5.1 Service Pack 3
callers working directory: C:\EXPERTDB\maxdb-server-win-32bit-i386-7_7_06_17
installer directory: C:\EXPERTDB\maxdb-server-win-32bit-i386-7_7_06_17
archive directory: C:\EXPERTDB\maxdb-server-win-32bit-i386-7_7_06_17

beginning to check sap db instances
existing instance:
0: EXPERTDB "C:/sdb/EXPERTDB" 7.7.6.16
1: none
please enter instance id: 0
please enter database manager operators name: dbm
please enter database manager operators password:
```



```
Command Prompt - sdbupd

starting installation We, Feb 03, 2010 at 12:13:30
operating system: Windows I386 NT 5.1 Service Pack 3
callers working directory: C:\EXPERTDB\maxdb-server-win-32bit-i386-7_7_06_17
installer directory: C:\EXPERTDB\maxdb-server-win-32bit-i386-7_7_06_17
archive directory: C:\EXPERTDB\maxdb-server-win-32bit-i386-7_7_06_17

beginning to check sap db instances
existing instance:
0: EXPERTDB "C:/sdb/EXPERTDB" 7.7.6.16
1: none
please enter instance id: 0
please enter database manager operators name: dbm
please enter database manager operators password:
start new instance update
finding instance type...
finding starting release...
finding migration strategy...
looking for running instances...
checking paramfile modifications...
checking data consistency for database migration...
Value of MOOD Parameter is NO
```



When started SDBUPD gives some general information at first like installation date, used operating system and directories. Afterwards the tool looks for existing MaxDB instances.

Each of them is listed with a number placed in front. Now the number has to be entered which represents the instance which is scheduled for the upgrade. If 'none' is chosen SDBUPD will quit (1).

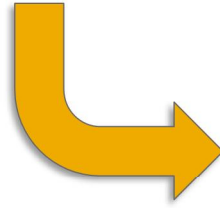
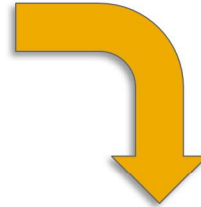
The next step is to enter username and password for the database manager operator user. When this has been done successfully the upgrade starts among others with determining the migration strategy et cetera (2). From now on no further interaction is necessary - SDBUPD will process all steps needed successively.

3. Tools to perform a SAP MaxDB upgrade / patch

3.3. SDBUPD [3]



```
Command Prompt - sdbupd
extracting: -rw-r--r-- 1006200 2009-09-25 20:09:40 Support/Mapfiles/serv-cl
u.nap
extracting: -rw-r--r-- 981725 2009-09-25 20:08:35 Support/Mapfiles/serv.na
p
extracting: -rw-r--r-- 598943 2009-09-25 20:07:56 Support/Mapfiles/show.na
p
extracting: -rw-r--r-- 696097 2009-09-25 20:30:22 Support/Mapfiles/sqlrun.
nap
extracting: drwxr-xr-x 0 2009-09-26 00:57:16 symbols/
extracting: -rw-r--r-- 3058688 2009-09-25 20:09:19 symbols/sapdbmscsex.pdb
extracting: -rw-r--r-- 994304 2009-09-25 20:09:27 symbols/sapdbmscsman.pdb
extracting: -rw-r--r-- 338944 2009-09-25 20:08:48 symbols/sapdbmscsres.pdb
extracting: -rw-r--r-- 447504 2009-09-25 20:08:40 symbols/serv-clu.pdb
extracting: -rw-r--r-- 4303872 2009-09-25 20:08:35 symbols/serv.pdb
extracting: -rw-r--r-- 2755584 2009-09-25 20:07:56 symbols/show.pdb
extracting: -rw-r--r-- 3148800 2009-09-25 20:30:22 symbols/sqlrun.pdb
checking unpacked archive... ok
starting installation phase of package Database Kernel 7.7.06.17 32 bit
unregister Database Kernel 7.7.06.16
```



```
Command Prompt - sdbupd
checking interferences to other packages... ok
collecting data finished:
independent program path: C:/sdb/programs
start extraction test run of "C:/EXPERTDB/maxdb-server-win-32bit-i386-7_7_06_17/
SDBUL.TGZ"
package Server Utilities successfully checked
starting preparing phase of package Database Kernel 7.7.06.17 32 bit
update release check... ok
update binary magic check... ok
checking interferences to other packages... ok
collecting data finished:
dependent path: C:/sdb/EXPERTDB
start extraction test run of "C:/EXPERTDB/maxdb-server-win-32bit-i386-7_7_06_17/
SDBKRN.TGZ"
```

After extracting the compressed software parts they will be installed. This step includes unregistering the corresponding part of the old version (1).

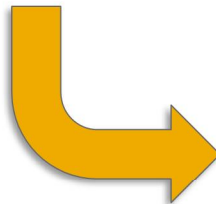
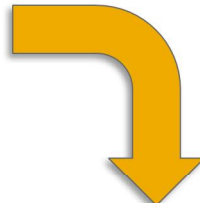
Once they have been installed they are prepared for the forthcoming usage including specific checks (2).

3. Tools to perform a SAP MaxDB upgrade / patch

3.3. SDBUPD [4]



```
Command Prompt - sdbupd
BC76.TGZ"
extracting: drwxr-xr-x      0 2009-09-22 21:29:19 pgm/
extracting: -rwxr-xr-x     643072 2009-09-22 19:55:13 pgm/libSDBLoader76.dll
extracting: -rwxr-xr-x    1200128 2009-09-22 20:37:43 pgm/libSQLDBC76.dll
extracting: -rwxr-xr-x    1273856 2009-09-22 21:00:45 pgm/libSQLDBC76_C.dll
extracting: drwxr-xr-x      0 2009-09-22 21:29:19 sdk/
extracting: drwxr-xr-x      0 2009-09-22 21:29:19 sdk/fastload/
extracting: drwxr-xr-x      0 2009-09-22 21:29:19 sdk/fastload/lib/
extracting: -rw-r--r--     22742 2009-09-22 19:55:13 sdk/fastload/lib/libSDBL
oader76.lib
extracting: drwxr-xr-x      0 2009-09-22 21:29:18 sdk/sqldbc/
extracting: drwxr-xr-x      0 2009-09-22 21:29:19 sdk/sqldbc/lib/
extracting: drwxr-xr-x      0 2009-09-22 21:29:19 sdk/sqldbc/lib/libSQLDBC
76.lib
extracting: -rw-r--r--    142744 2009-09-22 21:00:45 sdk/sqldbc/lib/libSQLDBC
76_C.lib
extracting: drwxr-xr-x      0 2009-09-22 21:29:19 symbols/
extracting: -rw-r--r--    3337216 2009-09-22 19:55:12 symbols/libSDBLoader76.p
db
extracting: -rw-r--r--    4721664 2009-09-22 20:37:42 symbols/libSQLDBC76.pdb
extracting: -rw-r--r--    5188608 2009-09-22 21:00:44 symbols/libSQLDBC76_C.pd
b
checking unpacked archive... OK
installation of MaxDB Server finished successfully We, Feb 03, 2010 at 12:24:31
```



```
Command Prompt
extracting: -rw-r--r--     82272 2009-09-22 20:37:43 sdk/sqldbc/lib/libSQLDBC
76.lib
extracting: -rw-r--r--    142744 2009-09-22 21:00:45 sdk/sqldbc/lib/libSQLDBC
76_C.lib
extracting: drwxr-xr-x      0 2009-09-22 21:29:19 symbols/
extracting: -rw-r--r--    3337216 2009-09-22 19:55:12 symbols/libSDBLoader76.p
db
extracting: -rw-r--r--    4721664 2009-09-22 20:37:42 symbols/libSQLDBC76.pdb
extracting: -rw-r--r--    5188608 2009-09-22 21:00:44 symbols/libSQLDBC76_C.pd
b
checking unpacked archive... OK
installation of MaxDB Server finished successfully We, Feb 03, 2010 at 12:24:31
finding instance type...
starting release already known
migration strategy already known
running finalize check...
current database state is OFFLINE
checking parameters...
switch database state to ADMIN
switch database state to ONLINE
loading system tables...
checking catalog...
MaxDB instance "EXPERTDB" updated successfully We, Feb 03, 2010 at 12:24:56
C:\EXPERTDB\maxdb-server-win-32bit-i386-7.7.06.17>
```



Once the software upgrade was finished a corresponding success message is sent (1).

After that SDBUPD carries on with the upgrade of the selected database instance. The steps can be followed by the respective screen message (2).

Finally the database instance is switched to state ONLINE again and the system tables are loaded. The success message at the end concludes the upgrade.

3. Tools to perform a SAP MaxDB upgrade / patch

3.3. SDBUPD [5]



```
Command Prompt
C:\>dbmcli db_enum
OK
EXPERTDB      C:\sdb\EXPERTDB      7.7.06.17      fast
running
EXPERTDB      C:\sdb\EXPERTDB      7.7.06.17      slow
offline

C:\>dbmcli inst_enum
OK
7.7.06.17     C:\sdb\EXPERTDB

C:\>dbmcli dbm_version
OK
VERSION      = 7.7.06
BUILD        = DBMServer 7.7.06   Build 017-123-221-951
OS           = WIN32
INSTROOT     = C:\sdb\EXPERTDB
LOGON        = True
CODE         = UTF8
SWAP         = full
UNICODE      = YES
INSTNAME     = C:\sdb\EXPERTDB
SYSDNAME     = Windows XP
MASKING      = YES
REPLTREATMENT = none,zlib,auto
```

1

```
MaxDBUpdate_install-03.02.2010-12.24.log - Notepad
File Edit Format View Help
MaxDB INSTANCE UPDATE
*****
STDOUT:
STDOUT: starting installation We, Feb 03, 2010 at 12:13:30
STDOUT: operating system: windows i386 NT 5.1 service pack 3
STDOUT: callers working directory: C:/EXPERTDB/maxdb-server-win-32bit-1386-7.7.06.17
STDOUT: installer directory: C:/EXPERTDB/maxdb-server-win-32bit-1386-7.7.06.17
MSG: InstallRegistry: space check ok: 227384564 kb on C: (244196000 kb total) available
MSG: Install registry successfully locked
MSG: read 20 PACKAGES
MSG: net registry size = 146500 bytes
MSG: InstallRegistry: reserved 1024 kb disk space
STDOUT: archive directory: C:/EXPERTDB/maxdb-server-win-32bit-1386-7.7.06.17
STDOUT:
MSG: debug package SDBBAS.SDB is valid
MSG: debug package SDBKRN.SDB is valid
MSG: debug package SDBUTL.SDB is valid
MSG: no installation data to migrate
STDOUT: beginning to check sap db instances
STDOUT: existing instance:
STDOUT: 0: EXPERTDB "C:/sdb/EXPERTDB" 7.7.6.16
STDOUT: 1: none
STDOUT: please enter instance id:
STDIN: 0
STDOUT: please enter database manager operators name:
```

2

As a quick check dbmcli commands 'db_enum' and 'inst_enum' can be executed. 'db_enum' shows all existing MaxDB instances and their versions.

'inst_enum' lists all existing software installations. So in the example above one database instance exists named EXPERTDB, version is 7.7.06.17.

Command 'db_enum' displays two lines for each database instance. The reason is that two database kernels are shipped with an installation. Only the output line containing 'fast' is of interest. It represents the kernel which is used for normal database operating.

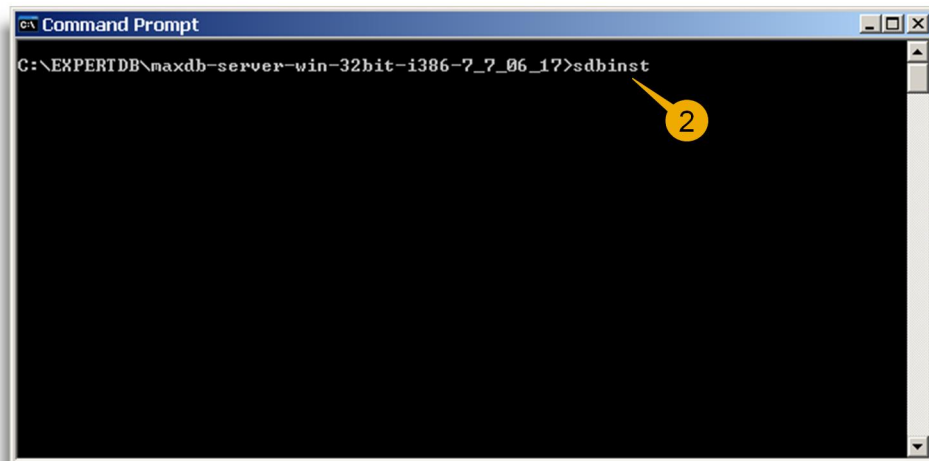
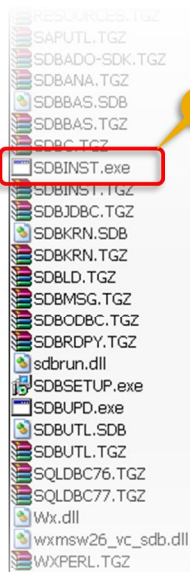
There is also only one software installation of the same version (output of dbmcli command 'inst_enum'). Command 'dbm_version' shows the version of the dbmserver (1).

For later reference the upgrade log file can be checked again. Like the log file of SDBSETUP it is located in directory '<independent data path>/wrk'. If <independent data path> just cannot be remembered it can be figured out easily by dbmcli command 'dbm_getpath IndepDataPath'. The upgrade log files of SDBUPD always comply with the following naming convention: 'MaxDBUpdate_install-<time stamp>.log'. Time stamp represents the point in time when the upgrade finished and is given as dd.mm.yyyy-hh.mm.

In the example above it is 'MaxDBUpdate_install-03.02.2010-12.24.log' (2).

3. Tools to perform a SAP MaxDB upgrade / patch

3.4. SDBINST [1]



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SDBINST is the command line tool to install MaxDB software without having a MaxDB version already installed. It can be used for a complete MaxDB software installation or particular parts of it.

Normally it is not necessary to use SDBINST to install MaxDB server software. Within the scope of SAP systems SDBINST is part of the global installation tools for SAP systems (SAPinst, SAPup, SAPEhpi). Installing MaxDB server software with SDBINST directly on SAP systems is required in very special cases only and should be aligned with MaxDB support.

Reason: Versions of MaxDB and SAP system have to be compatible. Usage of SAP tools SAPinst, SAPup, SAPEhpi ensure this.

SDBINST is mostly used for installing MaxDB client software on dedicated SAP application servers whereas this can also be done with SDBSETUP (Installation Manager).

For the following example a switch back is done to the same initial situation: There is one MaxDB software installation of version 7.7.06.16 on the server with database instance EXPERTDB based on it. Intention is to upgrade MaxDB client software only to version 7.7.06.17.

SDBINST is located as an executable file within the MaxDB installation software package (1).

A command prompt screen has to be opened in the directory where the installation software package has been copied to.

To start the installation SDBINST has to be typed followed up by pressing the enter key (2). SDBINST starts in a separate command prompt screen.

3. Tools to perform a SAP MaxDB upgrade / patch

3.4. SDBINST [2]

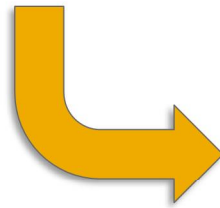
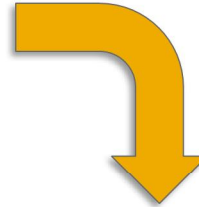


```
ex sdbinst

Installation of MaxDB Software
*****

starting installation Fr, Feb 05, 2010 at 13:34:16
operating system: Windows I386 NT 5.1 Service Pack 3
callers working directory: C:/EXPERTDB/maxdb-server-win-32bit-i386-7.7.06.17
installer directory: C:/EXPERTDB/maxdb-server-win-32bit-i386-7.7.06.17
archive directory: C:/EXPERTDB/maxdb-server-win-32bit-i386-7.7.06.17

existing component groups:
0: Server + Client
1: Client
2: Custom
3: none
please enter component group id: 1
```



```
ex sdbinst

existing component groups:
0: Server + Client
1: Client
2: Custom
3: none
please enter component group id: 1

starting preparing phase of package Base 7.7.06.17 32 bit

update release check... ok
update binary magic check... ok
checking interferences to other packages... ok

collecting data finished:

independent data path: C:/Documents and Settings/All Users/Application Data/sdb/
data
independent program path: C:/sdb/programs
start extraction test run of "C:/EXPERTDB/maxdb-server-win-32bit-i386-7.7.06.17/
SDBBNS.TGZ"
```

To install MaxDB client software component group 'Client' has to be chosen (1). If on the used server no MaxDB software is installed SDBINST will start with a new installation of the MaxDB client software components. No database instance can be created afterwards on this server if the client software is installed only. It can be used to connect to remote MaxDB database instances only.

If already a MaxDB software installation exists on this server (only client or client + server software) SDBINST will update the MaxDB client software part to the new version. If the already installed client software part is of the same or a higher version SDBINST will send a corresponding message and cancel the installation.

The installation again starts with preparation and interferences checks (2).

3. Tools to perform a SAP MaxDB upgrade / patch

3.4. SDBINST [3]



```

c:\sdbinst
update binary magic check... ok
checking interferences to other packages... ok
collecting data finished:
: C:/Documents and Settings/All Users/Application Data/sdb/data
independent program path: C:/sdb/programs
start extraction test run of "C:/EXPERTDB/maxdb-server-win-32bit-i386-7_7_06_17/
SAPUIL.TGZ"
test lib/icudt30.dll failed: cannot extract lib/icudt30.dll: sharing violation d
uring open of existing file
test lib/icuin30.dll failed: cannot extract lib/icuin30.dll: sharing violation d
uring open of existing file
test lib/icuuc30.dll failed: cannot extract lib/icuuc30.dll: sharing violation d
uring open of existing file
test lib/libsapu16vc71.dll failed: cannot extract lib/libsapu16vc71.dll: sharing
violation during open of existing file
test pgm/sapni.dll failed: cannot extract pgm/sapni.dll: sharing violation durin
g open of existing file
following programs are running:
serv.exe lpid = 38001
please stop all!
installation exited abnormally at Fr, Feb 05, 2010 at 13:35:47
press any key...
```

Attention has to be paid to the MaxDB communication server (xserver) before starting the client software upgrade. If other MaxDB software installations exist on the server and the communication server is running it has to be stopped before starting SDBINST.

Otherwise SDBINST will cancel and point to the reason for this (1). Command 'x_server stop' has to be executed to solve this situation.

3. Tools to perform a SAP MaxDB upgrade / patch

3.4. SDBINST [4]



```

C:\> sdbinst
extracting: d:\w\p-xp-x 0 2009-09-22 21:29:19 pgm/
extracting: -rw-r--r-- 643072 2009-09-22 19:55:13 pgm/libSDBLoader76.dll
extracting: -rw-r--r-- 1200128 2009-09-22 20:37:43 pgm/libSQLDBC76.dll
extracting: -rw-r--r-- 1273856 2009-09-22 21:00:45 pgm/libSQLDBC76_C.dll
extracting: d:\w\p-xp-x 0 2009-09-22 21:29:19 sdk/
extracting: d:\w\p-xp-x 0 2009-09-22 21:29:19 sdk/fastload/
extracting: d:\w\p-xp-x 0 2009-09-22 21:29:19 sdk/fastload/lib/
extracting: -rw-r--r-- 22742 2009-09-22 19:55:13 sdk/fastload/lib/libSDBL
oader76.lib
extracting: d:\w\p-xp-x 0 2009-09-22 21:29:18 sdk/sqldbc/
extracting: d:\w\p-xp-x 0 2009-09-22 21:29:19 sdk/sqldbc/lib/
extracting: -rw-r--r-- 82272 2009-09-22 20:37:43 sdk/sqldbc/lib/libSQLDBC
76.lib
extracting: -rw-r--r-- 142744 2009-09-22 21:00:45 sdk/sqldbc/lib/libSQLDBC
76_C.lib
extracting: d:\w\p-xp-x 0 2009-09-22 21:29:19 symbols/
extracting: -rw-r--r-- 3337216 2009-09-22 19:55:12 symbols/libSDBLoader76.p
db
extracting: -rw-r--r-- 4721664 2009-09-22 20:37:42 symbols/libSQLDBC76.pdb
extracting: -rw-r--r-- 5188608 2009-09-22 21:00:44 symbols/libSQLDBC76_C.pd
b
checking unpacked archive... ok
installation of MaxDB Client finished successfully Fr, 05, 2010 at 13:37:53
press any key...

```

```

MaxDBClient_install-05.02.2010-14.14.log - Notepad
File Edit Format View Help
Installation of MaxDB Software
*****
STDOUT:
STDOUT: starting installation Fr, Feb 05, 2010 at 14:14:07
STDOUT: operating system: windows I386 NT 5.1 Service Pack 3
STDOUT: callers working directory: C:/EXPERTDB/maxdb-server-win-32bit-i386-7_7_06_17
STDOUT: installer directory: C:/EXPERTDB/maxdb-server-win-32bit-i386-7_7_06_17
MSG: InstallRegistry: space check ok: 227829260 kb on C: (244196000 kb total) av
MSG: install registry successfully locked
MSG: read 20 PACKAGES
MSG: net registry size = 146350 bytes
WRN: InstallRegistry::reservespace(): file >= 1024 kb
STDOUT: archive directory: C:/EXPERTDB/maxdb-server-win-32bit-i386-7_7_06_17
STDOUT:
STDOUT: existing component groups:
STDOUT: 0: Server + Client
STDOUT: 1: Client
STDOUT: 2: Custom
STDOUT: 3: none
STDOUT: please enter component group id:
STDIN: 1

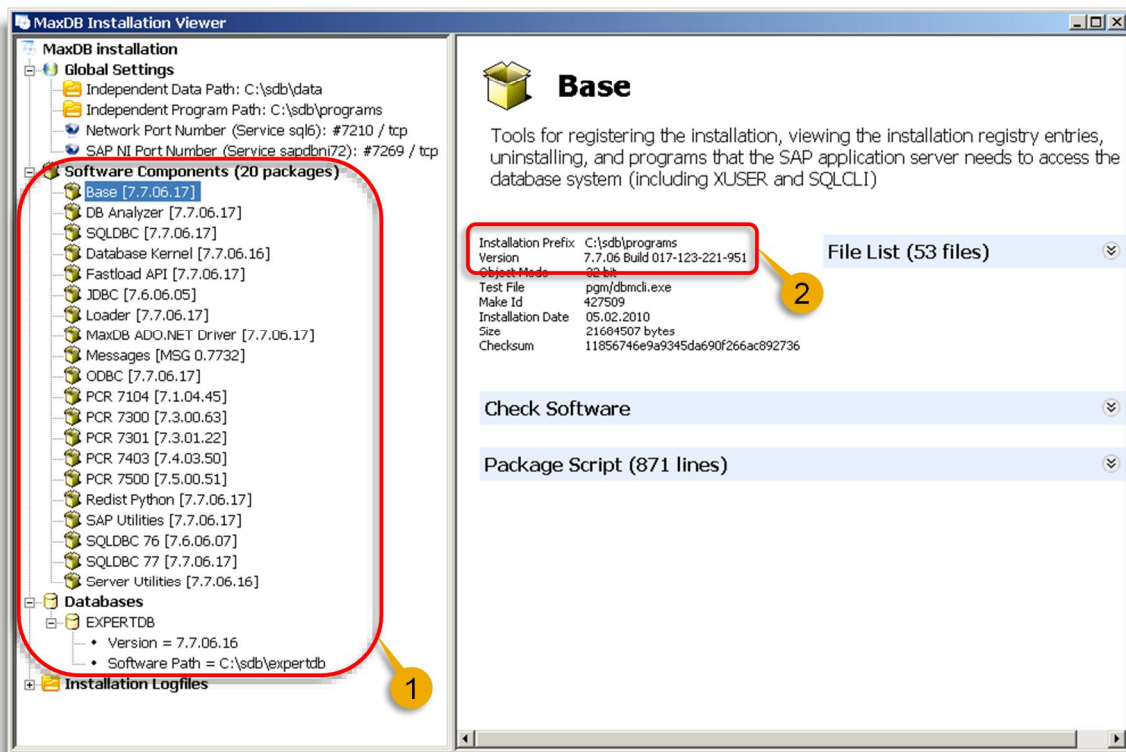
```

While the client software installation is running no interaction is necessary. Once it has been finished a success message is shown (1).

For later reference the installation log file can be checked again. As mentioned before all installation and upgrade log files are located in directory '<independent data path>/wrk'. If <independent data path> just cannot be remembered it can be figured out easily by dbmcli command 'dbm_getpath IndepDataPath'. The client installation log files always comply with the following naming convention: 'MaxDBClient_install-<time stamp>.log'. Time stamp represents the point in time when the client installation finished successfully and is given as dd.mm.yyyy-hh.mm. In the example above it is 'MaxDBClient_install-05.02.2010-14.14.log' (2).

3. Tools to perform a SAP MaxDB upgrade / patch

3.4. SDBINST [5]



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In contrast to SDBSETUP SDBINST doesn't provide an overview of installed MaxDB software components and their versions. So using SDBSETUP and choosing option 'Show MaxDB components' helps. It allows a detailed view which components were upgraded to version 7.7.06.17 and which one remained on version 7.7.06.16. As expected existing database instance EXPERTDB still is of version 7.7.06.16 (1).

For example the items of software component 'Base' are installed in the independent programs path (to be checked via 'dbmcli dbm_getpath IndepProgPath'). As version is displayed now 7.7.06.17 as component 'Base' is upgraded during a MaxDB client installation (2).

3. Tools to perform a SAP MaxDB upgrade / patch

3.4. SDBINST [6]



```
ex sdbinst
starting installation Th, Feb 04, 2010 at 10:50:43
operating system: Windows I386 NT 5.1 Service Pack 3
callers working directory: C:/EXPERTDB/maxdb-server-win-32bit-i386-7_7_06_17
installer directory: C:/EXPERTDB/maxdb-server-win-32bit-i386-7_7_06_17
archive directory: C:/EXPERTDB/maxdb-server-win-32bit-i386-7_7_06_17

existing component groups:
0: Server + Client
1: Client
2: Custom
3: none
please enter component group id: 2

existing profiles:
0: Runtime For SAP AS
1: MaxDB ADO.NET Driver
2: DB Analyzer
3: JDBC
4: Server
5: Loader
6: ODBC
7: all
8: none
please enter profile id:
```

1

SDBINST provides predefined profiles to install particular software parts only (dependencies are considered). If component group 'Custom' is chosen these profiles are listed and SDBINST waits for the corresponding selection (1). For example profile 'Runtime For SAP AS' represents the MaxDB client software installation.

Just to get an overview which packages are available to be installed it is possible to execute SDBINST with option '-l'.

Be careful ! Normally it is not necessary to make use of specific profiles. SDBSETUP (and in SAP system scope SAPinst) provides an easy graphical interface which should be preferred. If any doubts exist regarding installation / upgrade process please don't hesitate to contact MaxDB support. This is for sure the minor effort compared to a damaged MaxDB installation.

Agenda



1. Introduction

2. SAP MaxDB software packages for SAP systems

3. Tools to perform a SAP MaxDB upgrade / patch

4. Uninstall a SAP MaxDB installation

5. Tools to check a SAP MaxDB installation

6. Useful information resources

4. Uninstall a SAP MaxDB installation

4.1. SDBSETUP (Installation Manager) [1]

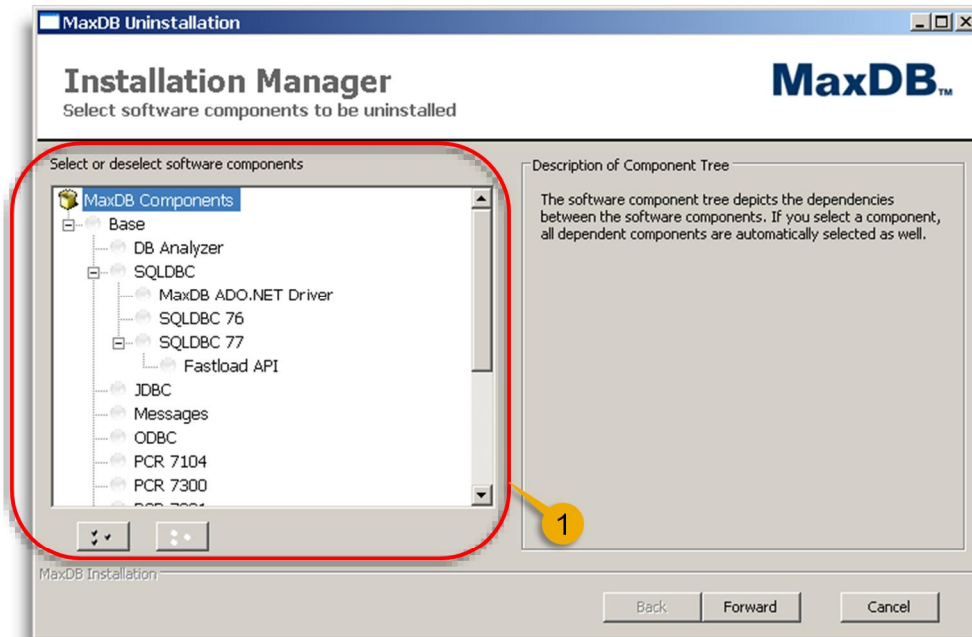


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To uninstall MaxDB software components SDBSETUP can be used. On the first screen option 'Remove MaxDB components' has to be chosen.

4. Uninstall a SAP MaxDB installation

4.1. SDBSETUP (Installation Manager) [2]

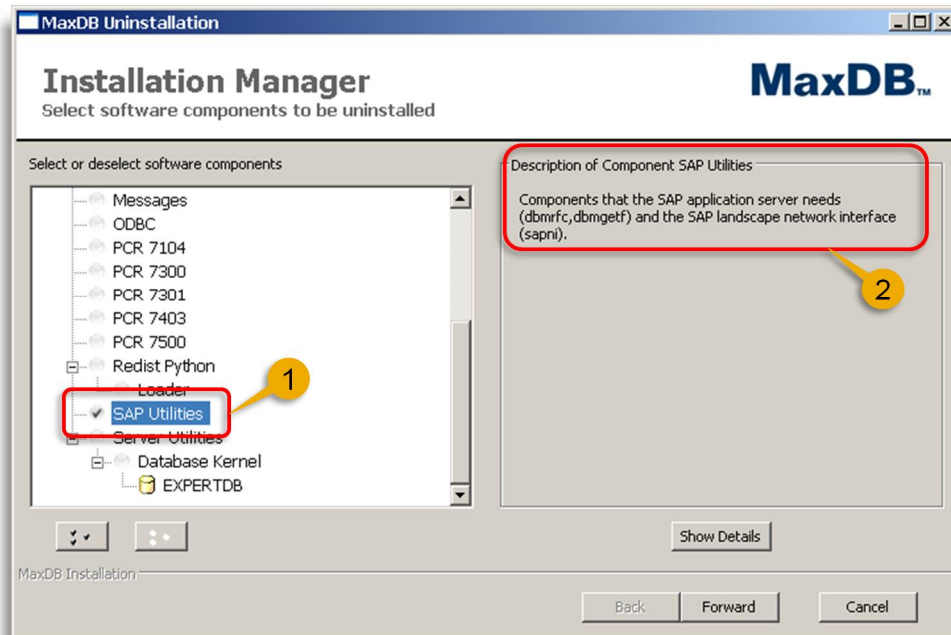


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The next screen shows the MaxDB software component tree. Here the component(s) to be deleted can be selected. Dependencies are considered. Below the tree there are two buttons which allow to select resp. deselect all components at one go (1).

4. Uninstall a SAP MaxDB installation

4.1. SDBSETUP (Installation Manager) [3]



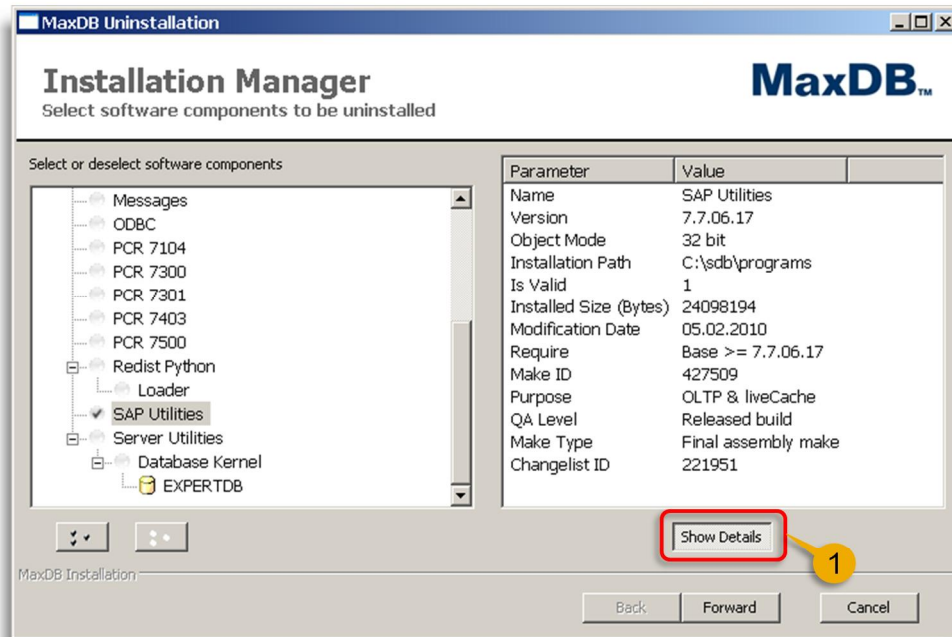
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In this example component 'SAP Utilities' was selected. The selection is indicated by the check mark (1).

On the right hand side the short description regarding this component is shown (2). This description is only listed when the component is highlighted (selected by mouse click) regardless of the check mark setting.

4. Uninstall a SAP MaxDB installation

4.1. SDBSETUP (Installation Manager) [4]

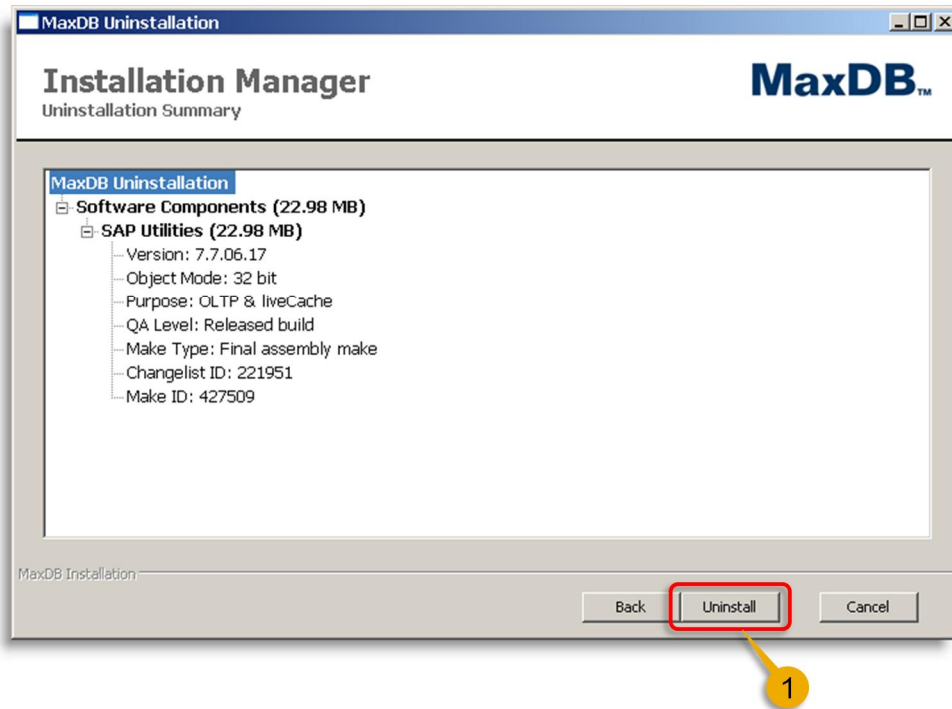


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Choosing button 'Show Details' below the short description opens a view with more details regarding the selected component (1). Choosing 'Forward' moves up to the next step.

4. Uninstall a SAP MaxDB installation

4.1. SDBSETUP (Installation Manager) [5]



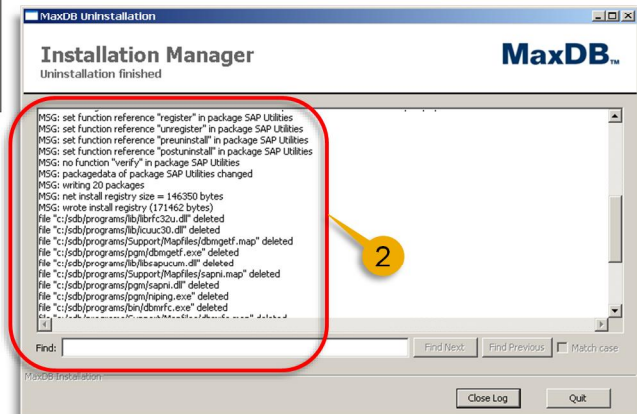
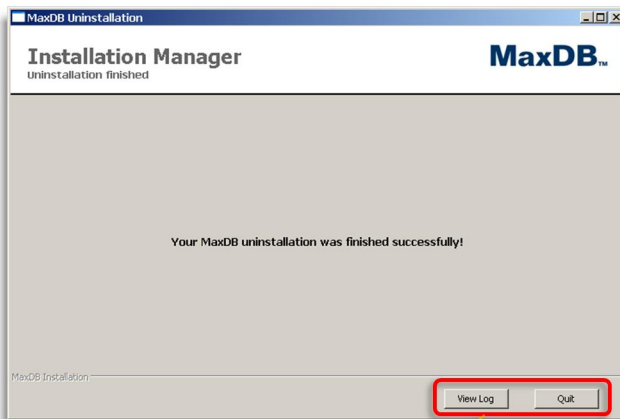
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The preparation has finished now and a summary of the components to be uninstalled is shown. Each component is displayed as a node which can be expanded for more details.

Choosing 'Uninstall' starts the uninstalling process (1).

4. Uninstall a SAP MaxDB installation

4.1. SDBSETUP (Installation Manager) [6]



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While uninstalling is running a progress bar is shown. Once finished a success screen appears which offers to quit the process or to have a look at the uninstalling log (1).

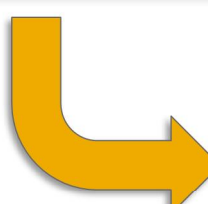
Within the uninstalling log all steps are listed which were done by SDBSETUP (2).

4. Uninstall a SAP MaxDB installation

4.2. SDBUNINST [1]



```
Command Prompt
C:\sdb\programs\bin>sdbuninst -l
```



```
sdbuninst -l
Server Utilities      c:/sdb/programs  7.7.06.16  32 bit  valid
DB Analyzer          c:/sdb/programs  7.7.06.17  32 bit  valid
PCR 7300             c:/sdb/programs  7.3.00.63  valid
MaxDB ADO.NET Driver c:/sdb/programs  7.7.06.17  32 bit  valid
PCR 7301             c:/sdb/programs  7.3.01.22  valid
PCR 7500             c:/sdb/programs  7.5.00.51  32 bit  valid
PCR 7104             c:/sdb/programs  7.1.04.45  valid
SAP Utilities        c:/sdb/programs  7.7.06.17  32 bit  valid
Redist Python        c:/sdb/programs  7.7.06.17  32 bit  valid
Base                 c:/sdb/programs  7.7.06.17  32 bit  valid
JDBC                 c:/sdb/programs  7.6.06.05  valid
Messages             c:/sdb/programs  MSG 0.7732
ODBC                 c:/sdb/programs  7.7.06.17  32 bit  valid
SQLDBC 77            c:/sdb/programs  7.7.06.17  32 bit  valid
Database Kernel     c:/sdb/expertdb  7.7.06.16  32 bit  valid
Loader               c:/sdb/programs  7.7.06.17  32 bit  valid
SQLDBC               c:/sdb/programs  7.7.06.17  32 bit  valid
SQLDEC 76            c:/sdb/programs  7.6.06.07  32 bit  valid
Fastload API         c:/sdb/programs  7.7.06.17  32 bit  valid
PCR 7403             c:/sdb/programs  7.4.03.50  32 bit  valid
press any key...
```

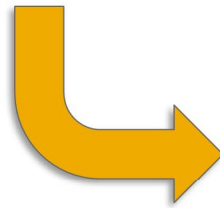
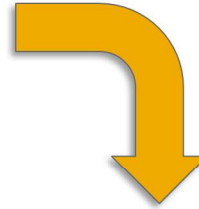
SDBUNINST is the command line tool to uninstall MaxDB software components. It is located in directory '<independent program path>/bin', too. SDBUNINST cannot be executed without any option – in this case it will quit. SDBUNINST always opens a second command prompt window. Executed with option '-l' it lists all MaxDB software components which can be uninstalled (1).

4. Uninstall a SAP MaxDB installation

4.2. SDBUNINST [2]



```
Command Prompt
C:\sdb\programs\bin>sd buninst -package "SAP Utilities"
1
```



```
sd buninst -package "SAP Utilities"
uninstall following package(s):
SAP Utilities c:/sdb/programs 7.7.06.17 32 bit
start uninstallation now <y/n>?
2
```

SDBUNINST allows to uninstall a specific package. Option '-package' has to be used for this followed by the package name as it is listed via 'sd buninst -l'. If the package name contains blanks it has to be specified in quotation marks (1).

Option '-package' will uninstall exactly the specified package. Dependencies on other packages are not checked by default. To include this check option '-autoreresolve' has to be added.

If SDBUNINST finds the specified package it gives a corresponding message including package version followed by the question to really start uninstalling this package or not (2).

4. Uninstall a SAP MaxDB installation

4.2. SDBUNINST [3]



```
sd buninst -package "SAP Utilities"
SAP Utilities c:/sdb/programs 7.7.06.17 32 bit

start uninstallation now (y/n)?y
cannot remove directory "c:/sdb/data"
cannot remove directory "c:/sdb/data/config"
cannot remove directory "c:/sdb/data/config/install"
cannot remove directory "c:/sdb/data/expertdb"
cannot remove directory "c:/sdb/data/expertdb/backup"
cannot remove directory "c:/sdb/data/expertdb/backup/data"
cannot remove directory "c:/sdb/data/expertdb/data"
cannot remove directory "c:/sdb/data/expertdb/log"
cannot remove directory "c:/sdb/data/urk"
cannot remove directory "c:/sdb/data/urk/.n770616"
cannot remove directory "c:/sdb/data/urk/.n770616/diaghistry/history_knlmsg"
cannot remove directory "c:/sdb/data/urk/.n770616/diaghistry/history_knlmsg"
cannot remove directory "c:/sdb/data/urk/expertdb"
cannot remove directory "c:/sdb/data/urk/expertdb/diaghistry"
cannot remove directory "c:/sdb/data/urk/expertdb/diaghistry/expertdb_20100205_14-09-06"
cannot remove directory "c:/sdb/data/urk/expertdb/diaghistry/history_knlmsg"
done
press any key...
```

```
sd buninst -all
uninstall following package(s):
DB Analyzer c:/sdb/programs 7.7.06.17 32 bit
Database Kernel c:/sdb/expertdb 7.7.06.16 32 bit
Server Utilities c:/sdb/programs 7.7.06.16 32 bit
PCR 7300 c:/sdb/programs 7.3.00.63
PCR 7301 c:/sdb/programs 7.3.01.22
PCR 7500 c:/sdb/programs 7.5.00.51 32 bit
PCR 7104 c:/sdb/programs 7.1.04.45
Loader c:/sdb/programs 7.7.06.17 32 bit
Redist Python c:/sdb/programs 7.7.06.17 32 bit
JDBC c:/sdb/programs 7.5.06.05
Messages c:/sdb/programs MSG 0.7732
MaxDB ADO.NET Driver c:/sdb/programs 7.7.06.17 32 bit
ODBC c:/sdb/programs 7.7.06.17 32 bit
Fastload API c:/sdb/programs 7.7.06.17 32 bit
SQLDEC 77 c:/sdb/programs 7.7.06.17 32 bit
SQLDEC 76 c:/sdb/programs 7.5.06.07 32 bit
SQLDEC c:/sdb/programs 7.7.06.17 32 bit
PCR 7403 c:/sdb/programs 7.4.03.50 32 bit
Base c:/sdb/programs 7.7.06.17 32 bit

start uninstallation now (y/n)?
```

If 'y' was entered SDBUNINST starts uninstalling the package. Messages regarding directories which cannot be removed can be ignored. These messages indicate that the mentioned directories contain files which belong to other packages and therefore have to be kept. The short message 'done' at the end shows that the package was successfully uninstalled (1).

SDBUNINST also allows to uninstall all installed packages. Option '-all' is provided for this. After the confirmation prompt was answered with 'y' SDBUNINST uninstalls the complete MaxDB software (2).

4. Uninstall a SAP MaxDB installation

4.2. SDBUNINST [4]



```

C:\> sdbuninst -all
Server Utilities      c:/sdb/programs 7.7.06.16 32 bit
PCR 7300             c:/sdb/programs 7.3.00.63
PCR 7301             c:/sdb/programs 7.3.01.22
PCR 7500             c:/sdb/programs 7.5.00.51 32 bit
PCR 7104             c:/sdb/programs 7.1.04.45
Loader               c:/sdb/programs 7.7.06.17 32 bit
Redist Python        c:/sdb/programs 7.7.06.17 32 bit
JDBC                 c:/sdb/programs 7.6.06.06
Messages             c:/sdb/programs MSG 0.7732
MaxDB ADO.NET Driver c:/sdb/programs 7.7.06.17 32 bit
ODBC                 c:/sdb/programs 7.7.06.17 32 bit
Fastload API         c:/sdb/programs 7.7.06.17 32 bit
SQLDBC 77            c:/sdb/programs 7.7.06.17 32 bit
SQLDBC 76            c:/sdb/programs 7.6.06.07 32 bit
SQLDBC               c:/sdb/programs 7.7.06.17 32 bit
PCR 7403             c:/sdb/programs 7.4.03.50 32 bit
Base                 c:/sdb/programs 7.7.06.17 32 bit

start uninstallation now (y/n)?y
found instance EXPERTDB
cannot remove package "Database Kernel": first you have to remove all instances
fatal error at Th, Feb 18, 2010 at 14:30:09
press any key...
```

```

C:\> sdbuninst -all
Messages             c:/sdb/programs MSG 0.7732
MaxDB ADO.NET Driver c:/sdb/programs 7.7.06.17 32 bit
ODBC                 c:/sdb/programs 7.7.06.17 32 bit
Fastload API         c:/sdb/programs 7.7.06.17 32 bit
SQLDBC 77            c:/sdb/programs 7.7.06.17 32 bit
SQLDBC 76            c:/sdb/programs 7.6.06.07 32 bit
SQLDBC               c:/sdb/programs 7.7.06.17 32 bit
PCR 7403             c:/sdb/programs 7.4.03.50 32 bit
Base                 c:/sdb/programs 7.7.06.17 32 bit

start uninstallation now (y/n)?y
unregister Database Kernel 7.7.06.16
system path cleaned successfully
please reboot your system after installation to take effect changes
cannot remove directory "c:/sdb/data"
cannot remove directory "c:/sdb/data/expertdb"
cannot remove directory "c:/sdb/data/expertdb/backup"
cannot remove directory "c:/sdb/data/expertdb/backup/data"
cannot remove directory "c:/sdb/data/urk"
cannot remove directory "c:/sdb/programs"
cannot remove directory "c:/sdb/programs/bin"
done
press any key...
```

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If SDBUNINST finds a registered MaxDB instance it announces this fact and will quit. All database instances have to be dropped before SDBUNINST can uninstall the complete MaxDB software (1).

Some files within MaxDB software structure will not be deleted by SDBUNINST, e.g. the written log file from uninstalling. SDBUNINST writes this log file to the directory it was started from. The log file is named 'MaxDBUninstall_install-<time stamp>.log'. Time stamp represents the point in time when the uninstalling finished and is given as dd.mm.yyyy-hh.mm.

The reason for messages regarding directories which cannot be removed is that there are files which are not deleted by SDBUNINST (2).

Agenda



1. Introduction

2. SAP MaxDB software packages for SAP systems

3. Tools to perform a SAP MaxDB upgrade / patch

4. Uninstall a SAP MaxDB installation

5. Tools to check a SAP MaxDB installation

6. Useful information resources

5. Tools to check a SAP MaxDB installation

5.1. XINSTINFO



```
Command Prompt
C:\sdb\programs\bin>dbmcli dbm_getpath IndepProgPath
OK
C:\sdb\programs
C:\sdb\programs\bin>
```

1

```
Command Prompt
C:\sdb\programs\bin>xinstinfo
IndepData      : C:\sdb\data
IndepPrograms : C:\sdb\programs
C:\sdb\programs\bin>xinstinfo EXPERTDB
IndepData      : C:\sdb\data
IndepPrograms : C:\sdb\programs
InstallationPath : C:\sdb\expertdb
Kernelversion  : KERNEL 7.7.06 BUILD 016-123-219-400
Rundirectory   : C:\sdb\data\wrk\EXPERTDB
C:\sdb\programs\bin>
```

2

All tools to check a SAP MaxDB installation explained in the following are located in directory '<independent program path>/bin'. If currently not remembered the location of '<independent program path>' can be figured out via dbmcli command 'dbm_getpath IndepProgPath' (1). All tools except XINSTINFO can be started with option '-h' to display the usage information.

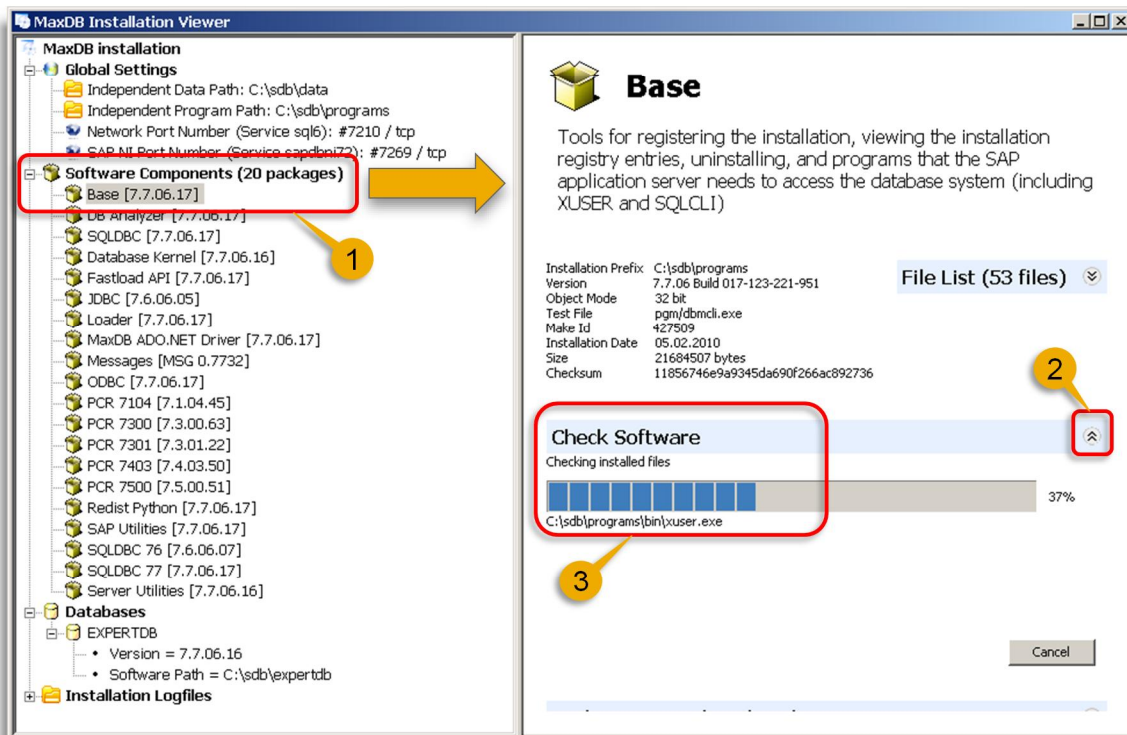
A helpful little tool to get relevant locations of a specific database instance is XINSTINFO. Executed without any option it shows the location of <independent data path> as well as <independent program path>. If this tool is executed the following way: 'xinstinfo <database name (SID)>' it shows in addition to the independent locations:

- ~ directory of the dependent software part of this database instance
- ~ the software version this database instance is based on
- ~ work directory (so called 'rundirectory') of this database instance

So a brief overview about relevant locations is on hand (2).

5. Tools to check a SAP MaxDB installation

5.2. SDBSETUP (Installation Manager) [1]



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As mentioned before SDBSETUP is located in directory '<independent program path>/bin', too. On Windows systems it can also be started via 'Start > All Programs > MaxDB > Installation Manager'.

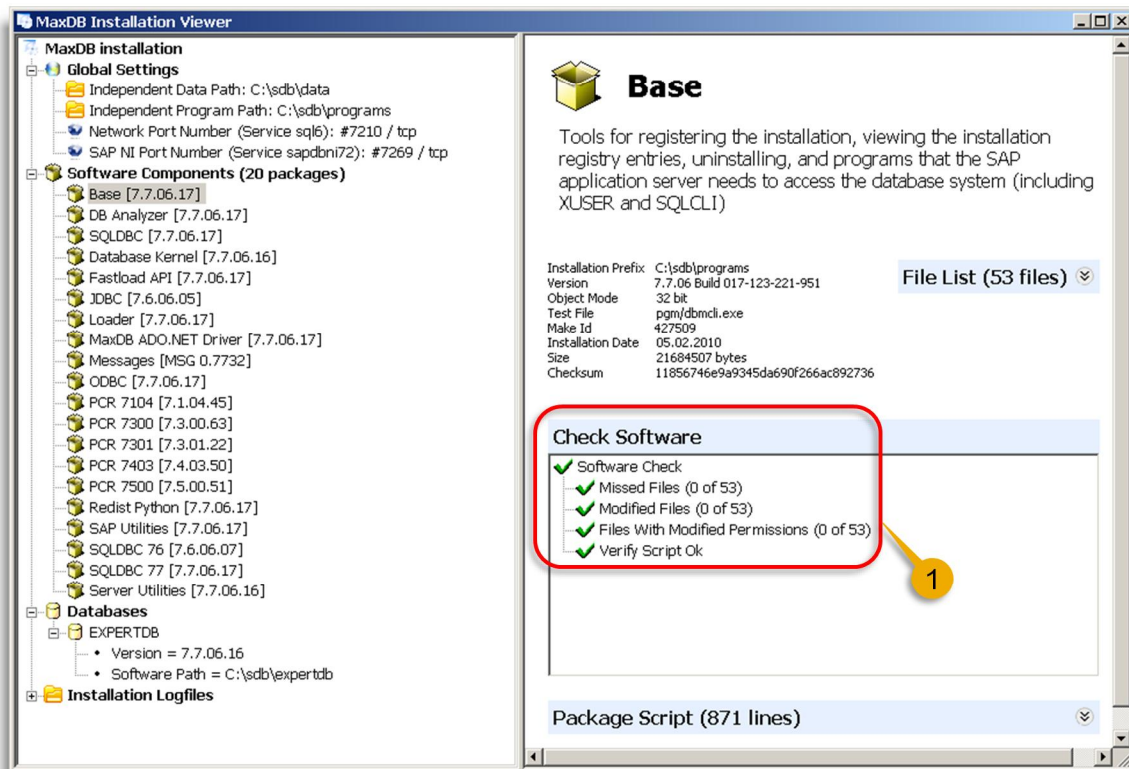
SDBSETUP was started and 'Show MaxDB components' was chosen. As already shown before SDBSETUP lists all installed MaxDB software packages and their respective version. Selecting one of them displays details on the right hand side (1).

The details view contains the possibility to check the selected package for correct installation. Choosing the icon at the far right on highlighted line named 'Check Software' starts this check (2). This has to be done by a user with administrator permissions. As long as the check is running a progress bar is shown (3).

The package check can also be started by selecting the corresponding package in the list and using the right mouse button. Within the displayed context menu entry 'Verify' has to be chosen then.

5. Tools to check a SAP MaxDB installation

5.2. SDBSETUP (Installation Manager) [2]

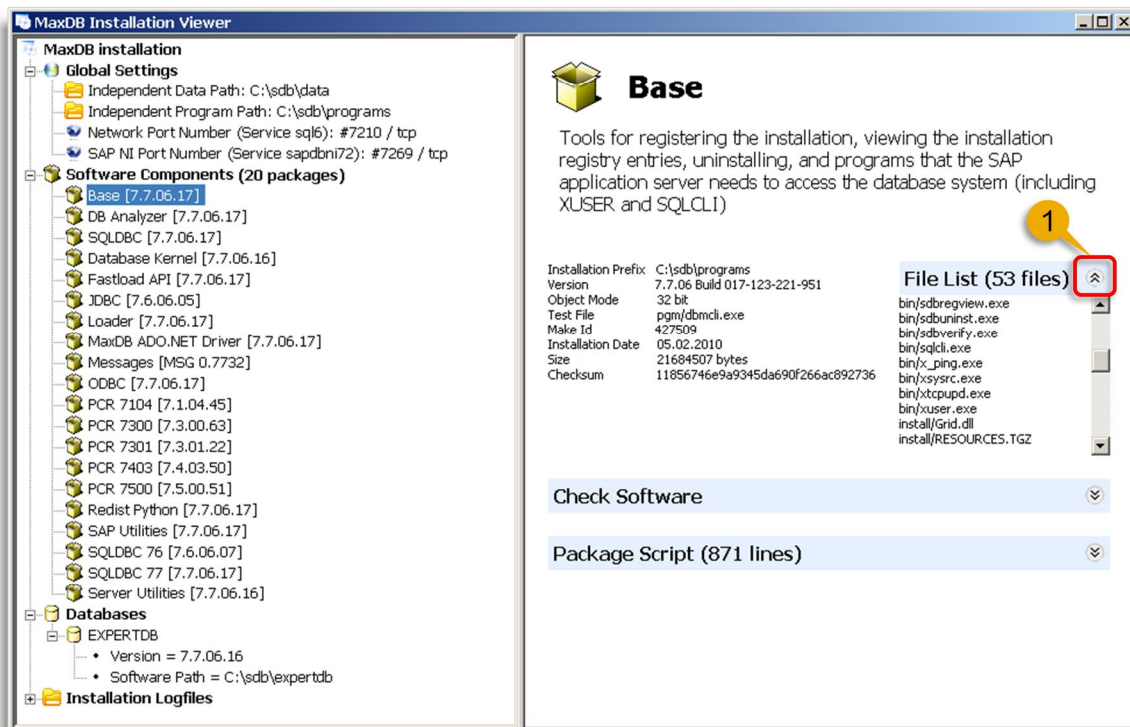


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Once the software component check has finished the result can be viewed. It is subdivided for a review regarding file / permission / package script issues (1).

5. Tools to check a SAP MaxDB installation

5.2. SDBSETUP (Installation Manager) [3]

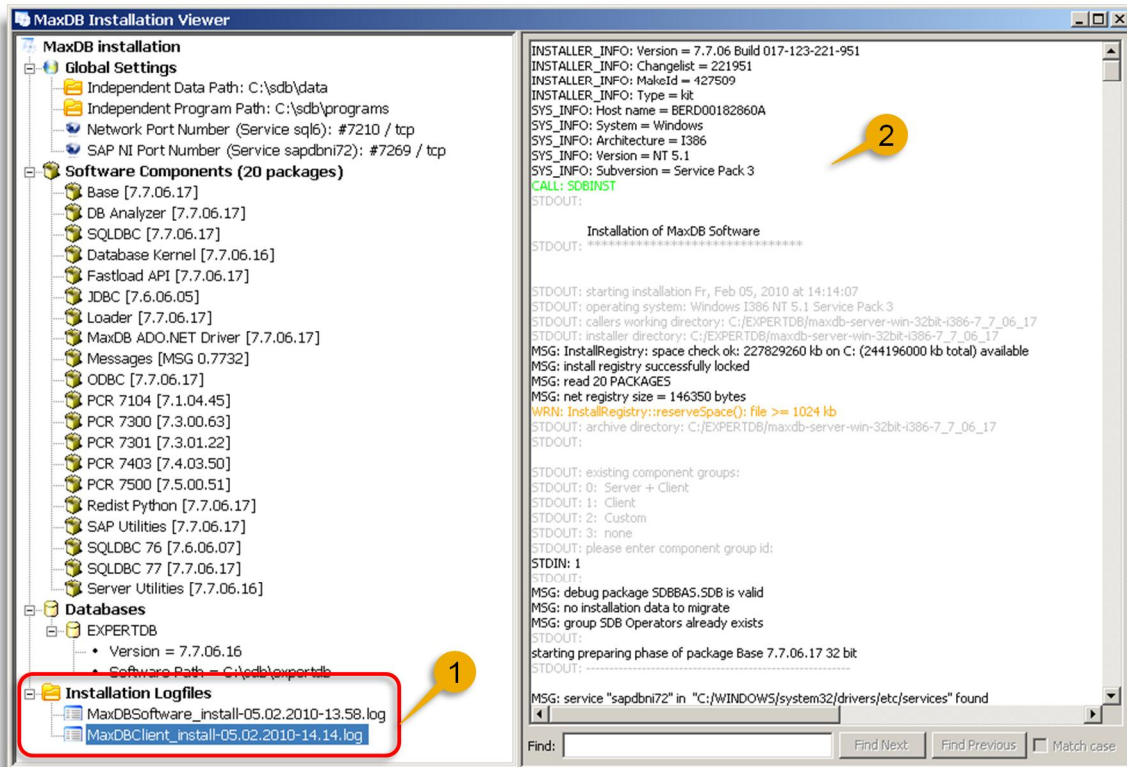


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For each software component a list of the contained files can be displayed. Choosing the icon at the far right on highlighted line named 'File List (... files)' opens that list (1).

5. Tools to check a SAP MaxDB installation

5.2. SDBSETUP (Installation Manager) [4]



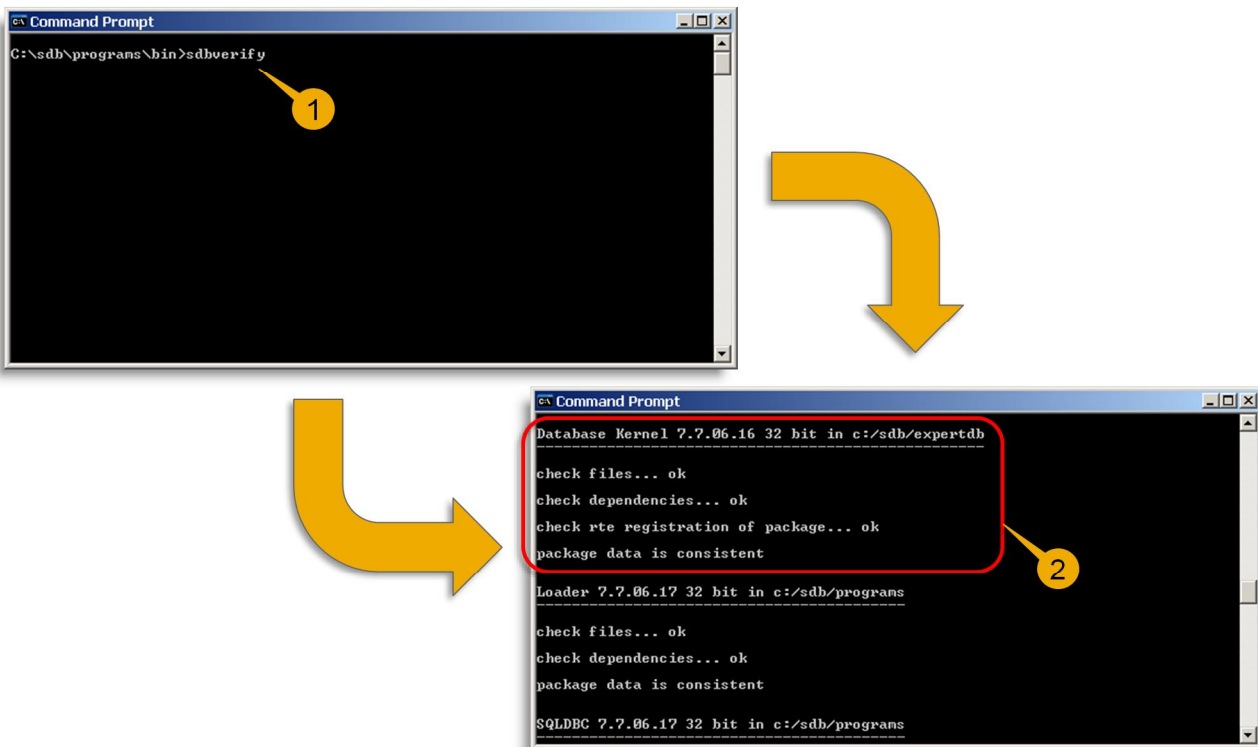
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On the lower left corner of the screen there is a node named 'Installation Logfiles'. After expanding this node all installation and upgrade logfiles are listed, sorted ascending (1).

Selecting one displays the content on the right hand side for further investigation (2).

5. Tools to check a SAP MaxDB installation

5.3. SDBVERIFY [1]



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SDBVERIFY is the command line tool to check installed MaxDB software for correct installation. This tool is started in background when option 'Check Software' within Installation Manager is executed (see 4.2 for checking specific software packages). To check specific packages it's more convenient to use Installation Manager as shown before. To check the entire installation SDBVERIFY has to be executed from command line by a user with administrator permissions (1).

Every installed package is checked successively regarding existing files, dependencies and if applicable runtime registration of the package. A concluding message indicates if the installation of the corresponding package is consistent or not (2).

5. Tools to check a SAP MaxDB installation

5.3. SDBVERIFY [2]



```
Command Prompt
check dependencies... ok
check rte registration of package... ok
package data is consistent

VERIFICATION SUMMARY:
*****
NUMBER OF INVALID PACKAGES:      0
NUMBER OF VALID PACKAGES:       20
NUMBER OF INCONSISTENT PACKAGES: 0

TOTAL NUMBER OF FILES:          492
NUMBER OF MISSED FILES:         0
NUMBER OF MODIFIED FILES:       0
NUMBER OF FILES WITH MODIFIED PERMISSIONS: 0

C:\sdb\programs\bin>
```

```
Command Prompt
C:\sdb\programs\bin>sdbverify -F C:\sdb\expertdb\pgm\kernel.exe
file is part of package "Database Kernel" [c:/sdb/expertdb]
checking file... ok

C:\sdb\programs\bin>
```

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At the end SDBVERIFY gives a summary of the checks. Invalid packages means packages which were detected as corrupt during installation. Inconsistent packages means packages which were installed correctly but got corrupt later. In addition to missed and modified files SDBVERIFY lists files with modified permissions (1).

It is essential to keep the file permissions as they were set during the installation. Modified permissions will potentially disturb the operation of MaxDB instances based on this installation.

In this case the changed permissions have to be reset to the original value manually. In future MaxDB versions (as of 7.8.02 in this case) SDBVERIFY will include an option to reset all wrong permissions back to the original setting at one go.

SDBVERIFY allows to check a specific file of the MaxDB software. If the tool is called with option '-F' followed by the corresponding file (including full path) only this file is checked. In addition SDBVERIFY indicates which package this file belongs to (2).

Please keep in mind: If SDBVERIFY is executed by a user with restricted permissions error messages appear which don't represent real errors. SDBVERIFY has to be executed by a user with administrator permissions.

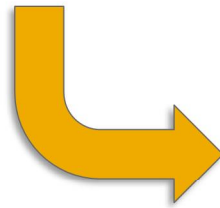
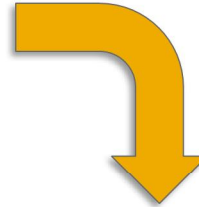
5. Tools to check a SAP MaxDB installation

5.4. SDBREGVIEW [1]



```
Command Prompt
C:\sdb\programs\bin>sdbregview
```

1



```
Command Prompt

package "Database Kernel":

PACKAGE DIRECTORY:  c:/sdb/expertdb
SOFTWARE VERSION:  7.7.06.16
PACKAGE VERSION:   0
VALID:             YES
MODE:              32 bit
MODIFICATION DATE: 05.02.2010
REQUIRE:          Server Utilities >= 7.7.06.16
FILELIST:          YES
HAS_DISPLAY_NAME: NO
SCRIPT:            YES
TEST FILE:         pga/kernel.exe
IS SUBPACKAGE:     NO
DEPENDENT PATH:    c:/sdb/expertdb
```

2

SDBREGVIEW is the command line tool that once started checks the registration of all installed MaxDB software packages (1).

Executed by a user with administrator permissions it lists all registration data for each package (2).

SDBREGVIEW runs in background when SDBSETUP was started and option 'Show MaxDB components' has been chosen. SDBSETUP shows a filtered output of SDBREGVIEW.

5. Tools to check a SAP MaxDB installation

5.4. SDBREGVIEW [2]



```
Command Prompt
C:\sdb\programs\bin>sdbregview -F c:\sdb\expertdb\pgm\kernel.exe
package "Database Kernel":

PACKAGE DIRECTORY:  c:/sdb/expertdb
SOFTWARE VERSION:  7.7.06.16
PACKAGE VERSION:   0
VALID:             YES
MODE:              32 bit
MODIFICATION DATE: 05.02.2010
REQUIRE:          Server Utilities >= 7.7.06.16
FILELIST:          YES
HAS DISPLAY NAME:  NO
SCRIPT:            YES
TEST FILE:         pgm/kernel.exe
IS SUBPACKAGE:     NO
DEPENDENT PATH:    c:/sdb/expertdb

C:\sdb\programs\bin>
```

```
Command Prompt
C:\sdb\programs\bin>sdbregview -l
Server Utilities  c:/sdb/programs  7.7.06.16  32 bit  valid
DB Analyzer      c:/sdb/programs  7.7.06.17  32 bit  valid
PCR 7300         c:/sdb/programs  7.3.00.63  32 bit  valid
MaxDB ADO.NET Driver c:/sdb/programs  7.7.06.17  32 bit  valid
PCR 7301         c:/sdb/programs  7.3.01.22  32 bit  valid
PCR 7500         c:/sdb/programs  7.5.00.51  32 bit  valid
PCR 7104         c:/sdb/programs  7.1.04.45  32 bit  valid
SAP Utilities    c:/sdb/programs  7.7.06.17  32 bit  valid
Redis Python     c:/sdb/programs  7.7.06.17  32 bit  valid
Base            c:/sdb/programs  7.7.06.17  32 bit  valid
JDBC            c:/sdb/programs  7.6.06.05  32 bit  valid
Messages        MSG 0.7732
ODBC            c:/sdb/programs  7.7.06.17  32 bit  valid
SQLDBC 77       c:/sdb/programs  7.7.06.17  32 bit  valid
Database Kernel c:/sdb/expertdb  7.7.06.16  32 bit  valid
Loader          c:/sdb/programs  7.7.06.17  32 bit  valid
SQLDBC         c:/sdb/programs  7.7.06.17  32 bit  valid
SQLDBC 76      c:/sdb/programs  7.6.06.07  32 bit  valid
Fastload API    c:/sdb/programs  7.7.06.17  32 bit  valid
PCR 7403        c:/sdb/programs  7.4.03.50  32 bit  valid

C:\sdb\programs\bin>
```

SDBREGVIEW is able to check and list the registration data just for a specific file. It also mentions the package which this file belongs to. To start the check for a specific file SDBREGVIEW has executed with option '-F' followed by the file name including full path (1).

For a quick overview of registered packages SDBREGVIEW has to be started with option '-l'. The given list also shows the respective version of each package (2).

5. Tools to check a SAP MaxDB installation

5.4. SDBREGVIEW [3]



```
Command Prompt
C:\sdb\programs\bin>sdbregview -instancedata
no instance data found
C:\sdb\programs\bin>
```

```
Command Prompt
C:\sdb\programs\bin>sdbregview -instancedata

INSTANCE:                EXPERTDB
ADDITIONAL:              NO
APO_STARTING_RELEASE:    NO
APO_TARGET_RELEASE:      NO
BACKUP_LOGPOS:          NO
DEFAULT_CODE:            NO
INSTANCE_CHECK_OK:      YES
LOGMWER:                 NO
LOGPOS:                  NO
MGCOD:                   NO
MIGRATION_STRATEGY:     COMPATIBLE_LOG
SOFTWARE_OK:             UNKNOWN
STARTING_DEPENDEND:     NO
STARTING_RELEASE:        7.7.06.16
TARGET_DEPENDEND:       NO
TARGET_RELEASE:          7.7.06.17
TYPE:                    OLTP
```

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SDBREGVIEW offers to check if there are installation data left from a pending MaxDB instance update. To start this check SDBREGVIEW has to be executed with option '-instancedata'.

If everything is fine the result is message 'no instance data found' (1).

If a MaxDB instance update was started and interrupted for some reason the next update to a higher MaxDB version will fail. Such an interrupt for example could be caused by a failing load of the system tables at the end of the update. SDBUPD will display error message 'can finish instance update only with package Database Kernel X.X.XX.XX'. In this message 'X.X.XX.XX' indicates the MaxDB version of the unfinished update.

In this situation a run of 'sdbregview -instancedata' will show data of the last unfinished update, among others instance name, start release and target release (which indicates the corresponding MaxDB versions) (2).

To solve this situation SDBUPD has to be executed again whereas SDBUPD from the installation software of the listed target version has to be used.

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6. Useful information resources

- **Manuals / documentation:**
 - ➔ <http://service.sap.com/instguides> (MaxDB Upgrade guides)
following ➔ “Database Upgrades” ➔ “SAP MaxDB”

- **SAP notes:**
 - ➔ 498036 “Overview note: Importing MaxDB/liveCache versions”
 - ➔ 1092397 “MaxDB installation and upgrade tool SDBSETUP”
 - ➔ 1020175 “FAQ: MaxDB installation, upgrade or applying a patch”
 - ➔ 822271 “FAQ: SAP MaxDB client software”

- **SAP Community Network (SCN):**
 - ➔ <http://wiki.sdn.sap.com/wiki/x/0Sw> (SAP MaxDB Release Information)

- **SAP Product Availability Matrix (PAM):**
 - ➔ <http://service.sap.com/pam>

Questions and Answers



Thank You!
Bye, Bye – And Remember Next Session



April 13, 2010	Session 8: New Features in SAP MaxDB Version 7.8



This presentation reflects current planning.

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