

Johannes Ahrends

Softwareinstallation

DOAG 2024 Datenbank
mit Exaday

15. und 16. Mai in Düsseldorf

#DOAGDB24

... über mich

Oracle-Spezialist seit 1992

- 7 Jahre: Presales bei Oracle in Düsseldorf
- 6 Jahre: Projektleiter bei Herrmann & Lenz Services GmbH
- 6 Jahre: Technischer Direktor ADM Presales bei Quest Software GmbH
- seit 12 Jahren: Geschäftsführer CarajanDB GmbH



DOAG-Mitglied:

- Ernennung zum Oracle ACE
- DOAG-Themenverantwortlicher Datenbankadministration, Standard Edition
- DOAG-Botschafter

Buchautor:

- Oracle9i für den DBA
- Oracle10g für den DBA
- Oracle 11g Release 2 für den DBA

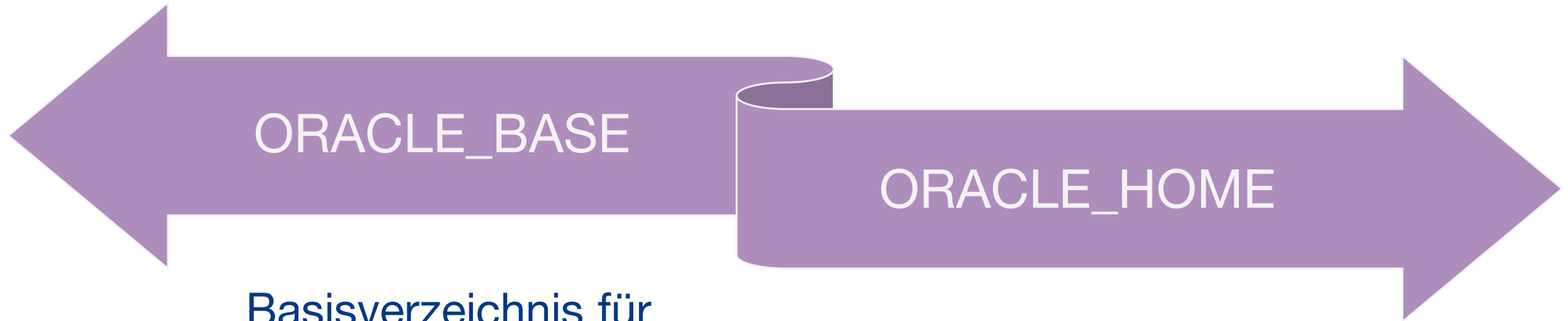


Hobbies:

- Drachen steigen lassen (Kiting) draußen wie drinnen (Indoorkiting)
- Bierbrauen
- Singen (überall)



Namenskonvention



Basisverzeichnis für
alle Oracle-Dateien

Verzeichnis eines
bestimmten
Oracle-Releases

Download

Oracle Database Free

Run Oracle Database 23ai Free on Linux

[Download Oracle Database Free for Oracle Linux 8 \(RPM\)](#)

[Oracle Database Free Installation Guide for Linux](#)

For Oracle Linux 9 and other download options, see [Oracle Database 23ai Free Get Started](#)

Run Oracle Database 21c XE on Windows

[Download Oracle Database XE for Windows \(ZIP\)](#)

[Oracle Database XE Installation Guide for Windows](#)

[Oracle Database 21c XE Quick Start](#)

Run the Oracle Database 23ai Free Container Image with Docker

Ideal for macOS, Linux, and other platforms

Use the following pull command for the latest:

```
docker pull container-registry.oracle.com/
```

[Copy code snippet](#)

For details, see the [Oracle Container Registry](#).

Did you know you can deploy Oracle Database on OCI Compute? [Learn more](#)

Oracle Database Enterprise Edition



Use these downloads for developing, prototyping, and testing in a non-production environment. If you have a commercial license for Oracle Database, you can download all supported versions from the [Oracle Software Delivery Cloud](#).

Database Version and Platform	Download	Related Resources
Oracle Database 19c for Microsoft Windows x64 (64-bit)	ZIP (2.9 GB)	Installation Guide Individual Component Downloads
Oracle Database 19c for Linux x86-64	ZIP (2.8 GB)	Installation Guide
	RPM (2.5 GB)	Individual Component Downloads

<https://www.oracle.com/de/database/technologies/oracle-database-software-downloads.html>

Weitere Software

- Oracle Software Delivery Cloud (Account notwendig)
 - Oracle Linux (kostenlose RedHat Linux Distribution)
 - MySQL
- Oracle Technology Network (kostenlose Mitgliedschaft möglich/empfohlen)
 - z.B. Oracle Client

Oracle Database 19c Client (19.3) for Microsoft Windows x64 (64-bit)	
Download	Description
 WINDOWS.X64_193000_client_home.zip	(64-bit) (92 a7d5ba7d3)
 WINDOWS.X64_193000_client.zip	(64-bit) (1,0 3fa278fe33)

Voraussetzungen in Windows

- 2 GB RAM
- 8 GB RAM für Grid Infrastructure
- 6 GB Filesystem für Software
+ 2-3 GB pro Patch
- 1 GB für Temporäre Daten
- Windows Versionen:
 - 8.1, 10, 11, 2012R2, 2016, 2019, 2022



Voraussetzungen in Linux

- grafische Oberfläche
 - falls keine „Silent“ Installation
- 1 GB Hauptspeicher
 - 2 GB empfohlen
- Swapspace = Hauptspeicher (bis 16 GB)
- 6 GB für Software
- Linux Distributionen / Versionen
 - Oracle Linux 7.x, 8.x, 9.x
 - Red Hat EL 7.x, 8.x, 9.x
 - SuSE SLES 12 SP3, 15



Vorbereitungen

- Unix/Linux:
Benutzer und ein bzw. zwei Gruppen anlegen:
 - User: `oracle`
 - Group:
 - `Oinstall`
 - Verwalter des Oracle Inventories)
 - `Dba`
 - Oracle Datenbank-Administrator
 - OSDBA erhält das Privileg SYSDBA
 - evtl. zusätzliche Gruppe `oper = OSOPER`
 - erhält das Privileg SYSOPER
- bei Grid Infrastructure früher meist separate Benutzer:
 - User: `grid`
 - Group: `asmadmin`
- Heute gibt es gute Erfahrungen mit nur einem User (`oracle`).

Packages Oracle Linux 8

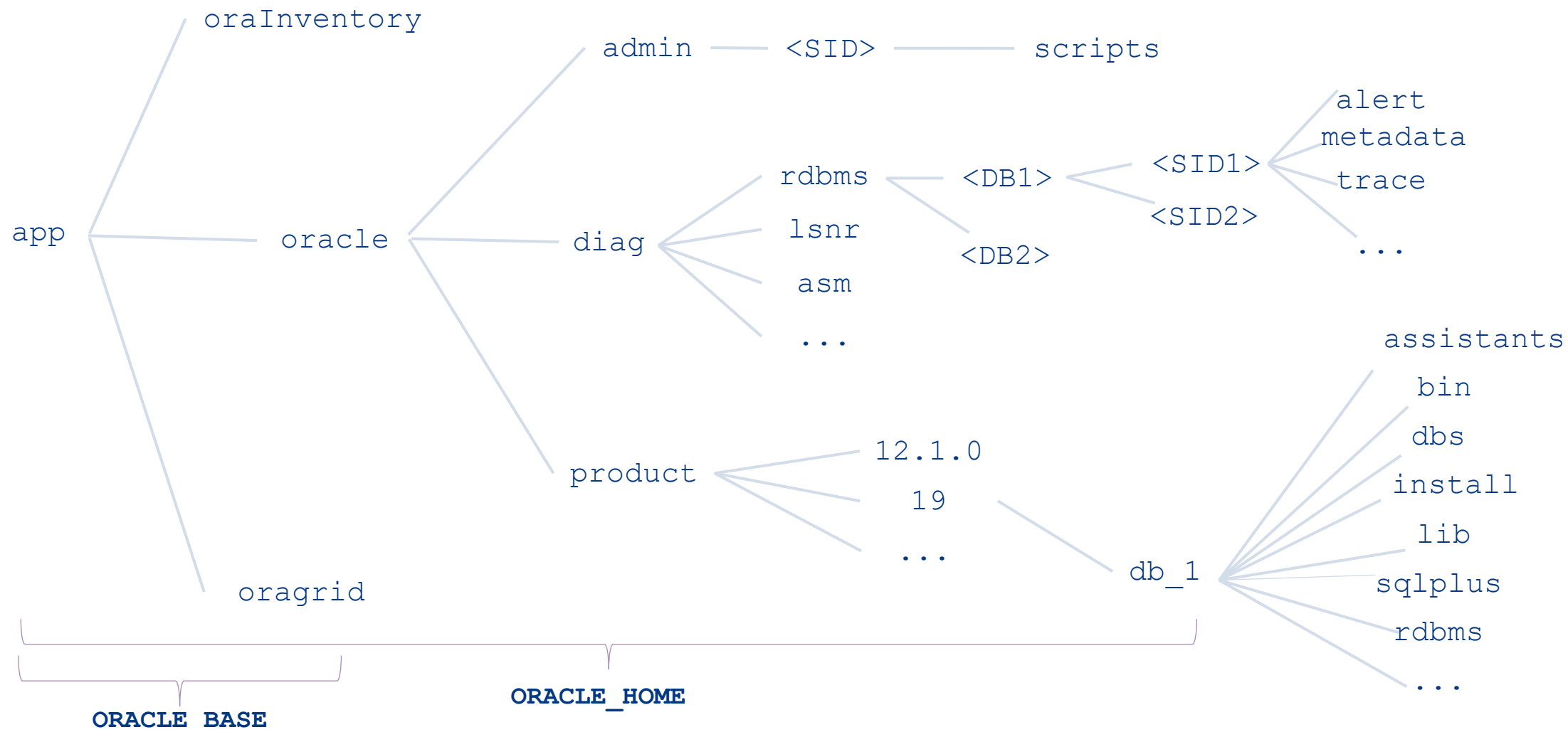
- `oracle-database-preinstall-19c`
 - alle notwendigen Pakete, Einstellungen (`sysctl.conf`, `security`)
 - legt den User `oracle` (UID 54321) und die Gruppen `oinstall` (GID 54321) und `dba` (GID 54322) an
- weitere interessante Pakete:
 - `rear` → Relax and Backup (ISO Images des OS erstellen)
 - `rlwrap` → Kommandowiederholung für Tools wie `sqlplus`

Preinstall Packages

User root:

```
# dnf install -y oracle-database-preinstall-19c
# dnf install -y wget
# dnf install -y rear
# wget https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rpm
# rpm -Uvh epel-release-latest-8.noarch.rpm
# dnf -y install rlwrap
```

Verzeichnisstruktur



Installationsarten

- Interaktive Installation
 - Standardinstallation
 - Standard Edition Two
 - Enterprise Edition
 - inklusive DB oder nur Software
 - Custom Installation
- Automatische Installation
 - Responsefile Installation



Vorbereitung

- Zielverzeichnis anlegen (ORACLE_HOME)

```
mkdir -p /u01/app/oracle/product/19/dbhome_1
```

- Software entpacken

```
cd /u01/app/oracle/product/19/dbhome_1  
unzip /oranfs/.../19/LINUX.X64_193000_db_home.zip
```

- runInstaller ...

```
./runInstaller
```

Vorbereitung Windows

- Zielverzeichnis anlegen (ORACLE_HOME)

```
mkdir D:\app\oracle\product\19\dbhome_1
```

- Software entpacken

```
cd D:\app\oracle\product\19\dbhome_1  
unzip WINDOWS.X64_190000_db_home.zip
```

- runInstaller ...

```
Setup.exe
```

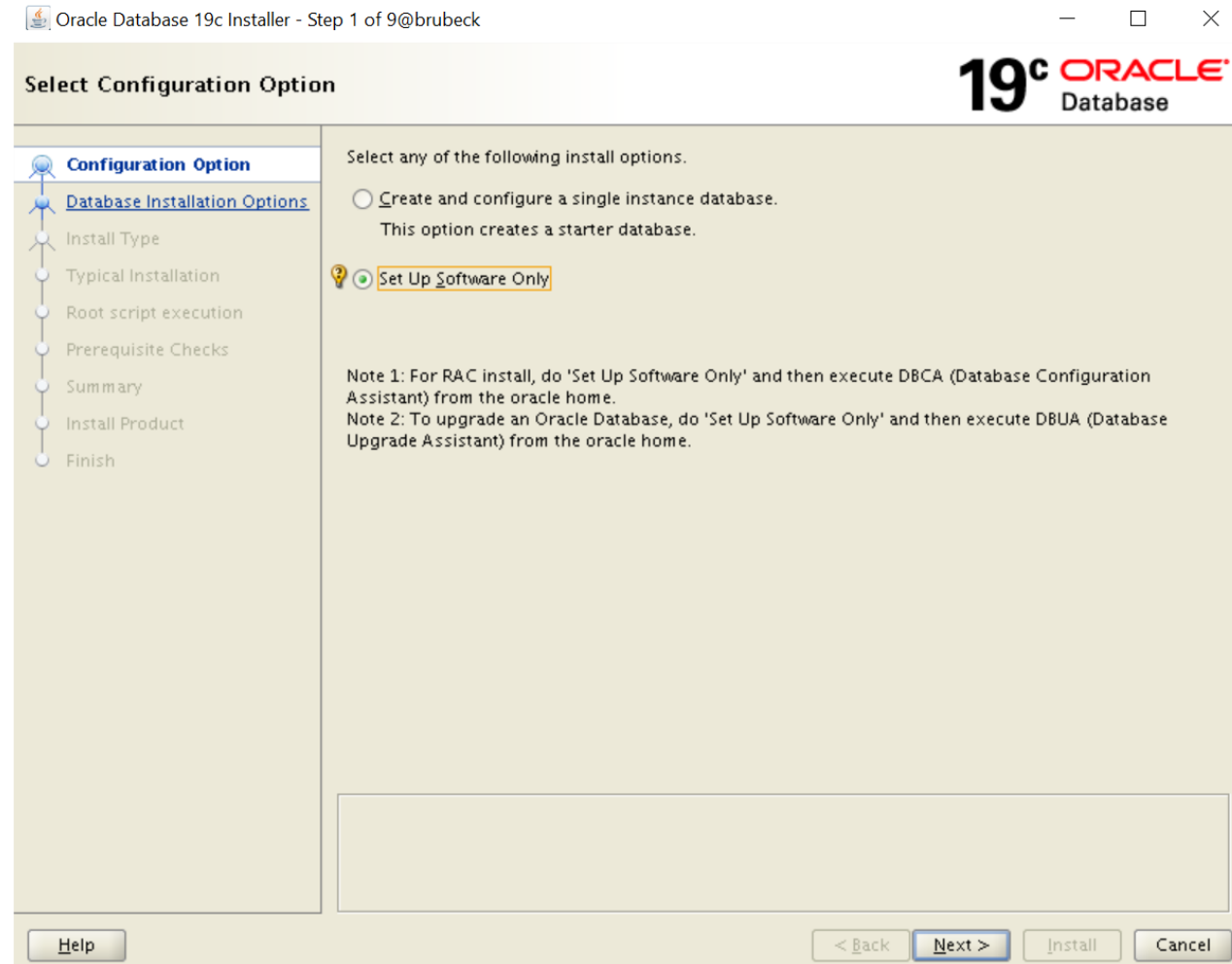

Oracle Linux 8

- direkte Installation aus Kompatibilitätsgründen nicht möglich
 - mindestens Release Update 19.9 (Oktober 2020)
 - Variable `CV_ASSUME_DISTID=OL7`
- **Beispiel: (RU 19.12 210720)**

```
cd /u01/app/oracle/product/19/dbhome_1
export CV_ASSUME_DISTID=OL7
./runInstaller -applyRU /home/oracle/32904851
```

Softwareinstallation

nur Software



Softwareinstallation

- `oraInstRoot.sh`

```
# /u01/app/oraInventory/oraInstRoot.sh
Changing permissions of /u01/app/oraInventory.
Adding read,write permissions for group.
Removing read,write,execute permissions for world.

Changing groupname of /u01/app/oraInventory to oinstall.
The execution of the script is complete.
```

- **Legt die Datei `/etc/oraInst.loc` sowie `/etc/oratab` an.**

```
# cat /etc/oraInst.loc
inventory_loc=/u01/app/oraInventory
inst_group=oinstall
```

Softwareinstallation

- `root.sh`
 - Ändert Permission für verschiedene Dateien, u.A. oracle:

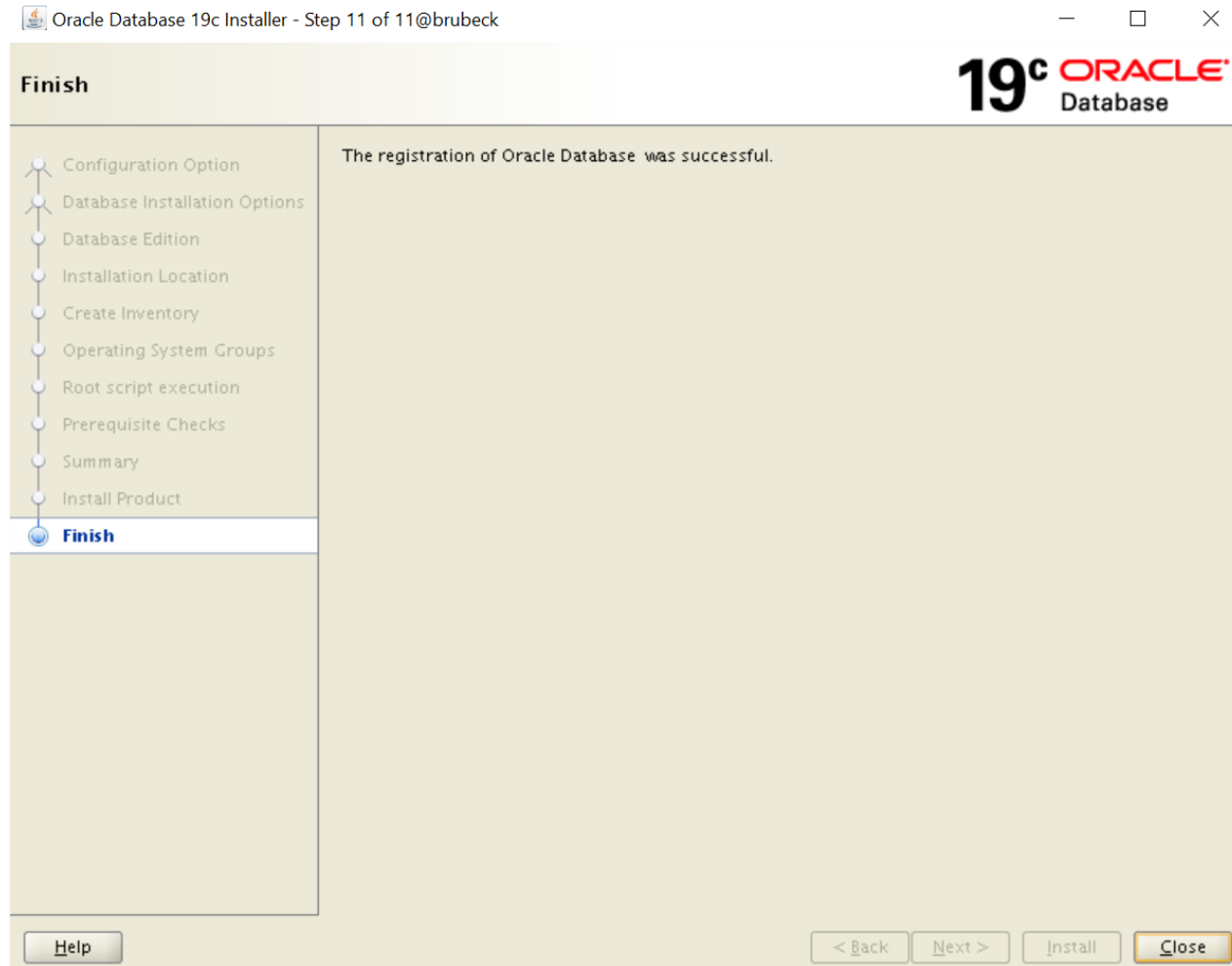
```
-rwsr-x---. 1 root    oinstall    3016808 Jul 26 10:52 extjob
-rwsr-x---. 1 root    oinstall    2328376 Jul 26 10:52 jssu
-rwsr-s--x. 1 oracle  oinstall   441298424 Jul 26 10:53 oracle
-rwsr-x---. 1 root    oinstall     147848 Apr 17 2019 oradism
```

- Legt Environment-Dateien an (User auf oracle ändern):

```
# chown oracle /usr/local/bin/*oraenv /usr/local/bin/dbhome
# ls -l /usr/local/bin
total 20
-rwxr-xr-x. 1 oracle  oinstall    6404 Jul 26 09:56 coraenv
-rwxr-xr-x. 1 oracle  oinstall    2445 Jul 26 09:56 dbhome
-rwxr-xr-x. 1 oracle  oinstall    6823 Jul 26 10:55 oraenv
```

Softwareinstallation

- Fertig!



Silent Installation

- Installation ohne grafische Oberfläche ausführen
- Verwendung von „Responsefiles“
- Standardlokation:

```
ls -l /u01/app/oracle/product/19.0/dbhome_1/install/response
total 40
-rw-r--r--. 1 oracle oinstall 19876 Mar 26 10:52 db_2024-03-26_10-14-31AM.rsp
-rw-r--r--. 1 oracle oinstall 19932 Feb  6  2019 db_install.rsp
```

- db_2024-03-26_10-14-31AM.rsp
 - „Mitschnitt“ der ausgeführten Installation
- db_install.rsp
 - Default-Installation

Response File

Lokation:

```
$ fgrep -v \# db_2024-03-26_10-14-31AM.rsp

oracle.install.responseFileVersion=/oracle/install/rspfmt_dbinstall_response_schema_v19.0.0
oracle.install.option=INSTALL_DB_SWONLY
UNIX_GROUP_NAME=oinstall
INVENTORY_LOCATION=/u01/app/oraInventory
ORACLE_BASE=/u01/app/oracle
oracle.install.db.InstallEdition=EE
oracle.install.db.OSDBA_GROUP=dba
oracle.install.db.OSOPER_GROUP=oper
oracle.install.db.OSBACKUPDBA_GROUP=dba
oracle.install.db.OSDGDBA_GROUP=dba
oracle.install.db.OSKMDBA_GROUP=dba
oracle.install.db.OSRACDBA_GROUP=dba
oracle.install.db.rootconfig.executeRootScript=false
```

Silent Installation

Ausführung:

```
$ cd /u01/app/oracle/product/19.0/dbhome_1
$ ./runInstaller -silent -responseFile /u01/app/oracle/product/19.0/dbhome_1/install/response/db_2024-03-26_10-14-31AM.rsp
```

Launching Oracle Database Setup Wizard...

[WARNING] [INS-13014] Target environment does not meet some optional requirements.

CAUSE: Some of the optional prerequisites are not met. See logs for details. installActions2024-03-26_12-26-55PM.log

ACTION: Identify the list of failed prerequisite checks from the log: installActions2024-03-26_12-26-55PM.log. Then either from the log file or from installation manual find the appropriate configuration to meet the prerequisites and fix it manually.

The response file for this session can be found at:

```
/u01/app/oracle/product/19.0/dbhome_1/install/response/db_2024-03-26_12-26-55PM.rsp
```

...

Silent Installation

```
...
You can find the log of this install session at:
/tmp/InstallActions2024-03-26_12-26-55PM/installActions2024-03-26_12-26-55PM.log

As a root user, execute the following script(s):
    1. /u01/app/oraInventory/orainstRoot.sh
    2. /u01/app/oracle/product/19.0/dbhome_1/root.sh

Execute /u01/app/oraInventory/orainstRoot.sh on the following nodes:
[brubeck]
Execute /u01/app/oracle/product/19.0/dbhome_1/root.sh on the following nodes:
[brubeck]

Successfully Setup Software with warning(s).
Moved the install session logs to:
/u01/app/oraInventory/logs/InstallActions2024-03-26_12-26-55PM
```

Ohne Responsefile

- Alle Parameter werden einzeln übergeben:

```
./runInstaller -silent \  
oracle.install.option=INSTALL_DB_SWONLY \  
UNIX_GROUP_NAME=oinstall \  
INVENTORY_LOCATION=/u01/app/oraInventory \  
ORACLE_BASE=/u01/app/oracle \  
oracle.install.db.InstallEdition=EE \  
oracle.install.db.OSDBA_GROUP=dba \  
oracle.install.db.OSOPER_GROUP=oper \  
oracle.install.db.OSBACKUPDBA_GROUP=dba \  
oracle.install.db.OSDGDBA_GROUP=dba \  
oracle.install.db.OSKMDBA_GROUP=dba \  
oracle.install.db.OSRACDBA_GROUP=dba \  
oracle.install.db.rootconfig.executeRootScript=false
```

- **WICHTIG:** Keine Leerzeichen hinter dem „\“!

Software-Patches






Software Patches

- Critical Patch Updates und Security Alerts
 - Enthalten wichtige Patches zum Schließen von Sicherheitslücken.
 - Werden am Dienstag, der am nächsten zum 17. des Monats liegt im Januar, April, Juli und Oktober freigegeben.
 - Nächste Termine:
 - 16 July 2024
 - 15 October 2024
 - 21 January 2025
 - 15 April 2025
- Nachzulesen: <https://www.oracle.com/security-alerts/>



Critical Patch Updates


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[Developers](#)
[Company](#)



[View Accounts](#)
[Contact Sales](#)

• [Applicability of Critical Patch Updates and Security Alerts to Oracle Cloud](#)

• [References](#)

Critical Patch Updates

Critical Patch Updates provide security patches for supported Oracle on-premises products. They are available to customers with valid support contracts. Starting in April 2022, Critical Patch Updates are released on the third Tuesday of January, April, July, and October (They were previously published on the Tuesday closest to the 17th day of January, April, July, and October). The next four dates are:

- 16 July 2024
- 15 October 2024
- 21 January 2025
- 15 April 2025

A pre-release announcement will be published on the Thursday preceding each Critical Patch Update release.

The Critical Patch Updates released since 2018 are listed in the following table. Critical Patch Updates released before 2018 are available [here](#).

Critical Patch Update	Latest Version/Date
Critical Patch Update - April 2024	Rev 1, 16 April 2024
Critical Patch Update - January 2024	Rev 4, 03 April 2024
Critical Patch Update - October 2023	Rev 5, 8 December 2023
Critical Patch Update - July 2023	Rev 1, 18 July 2023
Critical Patch Update - April 2023	Rev 2, 25 April 2023

<https://www.oracle.com/security-alerts/>

Database Server Risk Matrix

Oracle Database Server Risk Matrix

This Critical Patch Update contains 8 new security patches, plus additional third party patches noted below, for Oracle Database Products. 3 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. None of these patches are applicable to client-only installations, i.e., installations that do not have the Oracle Database Server installed. The English text form of this Risk Matrix can be found [here](#).

CVE ID	Component	Package and/or Privilege Required	Protocol	Remote Exploit without Auth.?	CVSS VERSION 3.1 RISK (see Risk Matrix Definitions)									Supported Versions Affected	Notes
					Base Score	Attack Vector	Attack Complex	Privs Req'd	User Interact	Scope	Confidentiality	Integrity	Availability		
CVE-2023-48795	Grid Infrastructure (Apache Mina SSHD)	None	SSH	Yes	5.9	Network	High	None	None	Unchanged	None	High	None	21.3-21.13	
CVE-2023-48795	Oracle SQLcl (Apache Mina SSHD)	None	SSH	Yes	5.9	Network	High	None	None	Unchanged	None	High	None	19.3-19.22, 21.3-21.13	
CVE-2024-21093	Java VM	Create Session, Create Procedure	Oracle Net	No	5.3	Network	High	Low	None	Unchanged	High	None	None	19.3-19.22, 21.3-21.13	
CVE-2024-21058	Unified Audit	SYSDBA	Oracle Net	No	4.9	Network	Low	High	None	Unchanged	None	High	None	19.3-19.22, 21.3-21.13	
CVE-2023-5072	GraalVM Multilingual Engine	None	Multiple	Yes	4.3	Network	Low	None	Required	Unchanged	None	None	Low	21.3-21.13	
CVE-2024-21066	RDBMS	Authenticated User	None	No	4.2	Local	Low	High	Required	Unchanged	High	None	None	19.3-19.22, 21.3-21.13	
CVE-2023-36632	RDBMS (Python)	Authenticated User	Oracle Net	No	3.5	Network	Low	Low	Required	Unchanged	None	None	Low	21.3-21.13	
CVE-2024-20995	Oracle Database Sharding	DBA	Oracle Net	No	2.4	Network	Low	High	Required	Unchanged	None	None	Low	19.3-19.22, 21.3-21.13	

<https://www.oracle.com/security-alerts/cpuapr2024.html>

Patches finden

Assistant:

Download Reference for Oracle Database/GI Update, Revision, PSU, SPU(CPU), Bundle Patches, Patchsets and Base Releases (Doc ID 2118136.2)

★ Assistant: Download Reference for Oracle Database/GI Update, Revision, PSU, SPU(CPU), Bundle Patches, Patchsets and Base Releases (Doc ID 2118136.2) 🔼 To Bottom

⊕
✉
🔗
🖨

Selection(s)

What would you like to download?

- Oracle Database Base Releases
- Oracle Database Patchsets
- Oracle Database Updates (Versions 12.2 & higher)
- Oracle Database Update Revisions (Versions 12.2 & higher)
- Oracle Database PSU, SPU(CPU), Bundle Patches (Versions 12.1 & lower)
- OJVM Update/PSU/Bundle Patches
- Latest Available Microsoft Windows Patches

Additional Clarification

Please select an option above to begin clarifying the issue you are experiencing.

Solution(s)

Possible Solutions will appear once you make your selection.

Patch Typen

- alt:

- PSU: Patch Set Update → alle Patches für DB \leq 12.1.
- SPU: Security Patch Update → nur Security Patches für DB \leq 12.1.
- CPU: Critical Patch Update → nur Kritische Patches für DB \leq 12.1.
- BP: Bundle Patch → alle Patches für DB \leq 12.1.

- aktuell:

- RU: Release Update → alle Patches für DB \geq 12.2
- ~~• RUR: Release Update Revision → nur Security Patches für bestimmte RU's~~
- MRP: Monthly Recommended Patches → Recommended Oneoff Patches (nur Linux)
- OJVM: Oracle Java Virtual Machine → Patches für die OJVM, falls installiert

Auswahl des Release Updates

ORACLE MY ORACLE SUPPORT Power Last Login: May 10, 2024 5:12 PM CEST Switch to Cloud Support Johannes (Available) (0) Contact Us Help

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Assistant: Download Reference for Oracle Database/GI Update, Revision, PSU, SPU(CPU), Bundle Patches, Patchsets and Base Releases (Doc ID 2118136.2) To Bottom

+/- Email Print

Selection(s)

What would you like to download?
> Oracle Database Release Updates (RUs) [Change]

Please select the version:
> 19.0.0.0 [Change]

Related Information

19.0.0.0			
Description	Database Update	GI Update	Windows Bundle Patch
APR2024 (19.23.0.0.0)	36233263	36233126	36219938
JAN2024 (19.22.0.0.0)	35943157	35940989	35962832
OCT2023 (19.21.0.0.0)	35643107	35642822	35681552
JUL2023 (19.20.0.0.0)	35320081	35319490	35348034
APR2023 (19.19.0.0.0)	35042068	35037840	35046439
JAN2023	34765931	34762026	34750795

Download des Patches

Patch Search

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Patch Simple Search Results

View ▾ [Detach](#)

Patch Name	Description
36233126	GI RELEASE UPDATE 19.23.0.0.0 (System Patch)
36233263	DATABASE RELEASE UPDATE 19.23.0.0.0 (Patch)
36233126	GI RELEASE UPDATE 19.23.0.0.0 (System Patch)
36233263	DATABASE RELEASE UPDATE 19.23.0.0.0 (Patch)
36233126	GI RELEASE UPDATE 19.23.0.0.0 (System Patch)
36233263	DATABASE RELEASE UPDATE 19.23.0.0.0 (Patch)
36233126	GI RELEASE UPDATE 19.23.0.0.0 (System Patch)
36233263	DATABASE RELEASE UPDATE 19.23.0.0.0 (Patch)
36233126	GI RELEASE UPDATE 19.23.0.0.0 (System Patch)

[Close](#)

★ REC Patch 36233263: DATABASE RELEASE UPDATE 19.23.0.0.0

Last Updated Apr 16, 2024 3:06 PM (26 days ago)

Product Oracle Database - Enterprise Edition
[\(More...\)](#)

Size 1.7 GB

Download Access Software

Release Oracle Database 19.0.0.0.0

Classification Security

Platform Linux x86-64

Patch Tag All Database

System Patch Available

Note

This patch is part of the following system patch. Consider downloading the system patch instead.

36233126	GI RELEASE UPDATE 19.23.0.0.0	System Patch
--------------------------	-------------------------------	--------------

Bugs Resolved by This Patch

10121473	INCORRECT WAIT EVENT PARAMETER DESCRIPTION FOR "LIBRARY CACHE LOCK"
10123661	CURSOR SHARING OF "AS OF SCN" CURSORS
1297945	QH:FOLDER ERRORR WHEN ATTEMPTING TO PLACE ITEMS ON EIT TAB

Release Oracle Database 19.0.0.0.0

Platform

Language American English

[Read Me](#) [Download](#) [Add to Plan](#)

[Analyze with OPatch...](#)

All-time Downloads **No history available** [View Trends](#)

[Discuss this patch in the community](#)

Readme

1 Patch Information

- Database Release Update 19.23.0.0.240416 patches are cumulative. That is, the content of all previous Database bundles is included in the latest Database bundle patch.
- To install the Database Release Update 19.23.0.0.240416 patch, the Oracle home must have Oracle Database release 19c installed.
- This patch is Oracle RAC Rolling Installable.
- This patch is Database Vault installable. Review My Oracle Support document [1195205.1](#) *Primary Note For Oracle Database Vault* for details on how to apply this patch to a Database Vault environment.
- This patch is Data Guard Standby-First Installable. See My Oracle Support document [1265700.1](#) *Oracle Patch Assurance - Data Guard Standby-First Patch Apply* for details on how to remove risk and reduce downtime when applying this patch.
- This patch includes the JDK fixes released in the prior cycle and will update the JDK in the Oracle home. For the most recent JDK fixes, a separate patch is available and needs to be installed in addition to this patch. Refer to My Oracle Support document [888.1](#) *Primary Note for Database Proactive Patch Program* for the JDK patch number.
- Beginning with 19.21 Oct2023 RU, `UTL_URI.ESCAPE` function is now compliant with RFC 3896 and will treat "#" as a reserved character. See My Oracle Support Note [2981395.1](#) for more details.
- Beginning with 19.22 Jan2024 RU, the 19c database is now certified on Oracle Linux 9.x and RHEL9.x.
- This DBRU contains the following CORE DST patches:
 - 28852325 - DSTV33 UPDATE - TZDATA2018G
 - 29997937 - DSTV34 UPDATE - TZDATA2019B
 - 31335037 - DSTV35 UPDATE - TZDATA2020A
 - 32327201 - DSTV36 UPDATE - TZDATA2020E

Download

File Download ✕



Click each file name to download the selected files.
Tip: Use a Download Manager [Learn More...](#)

Include Prerequisites

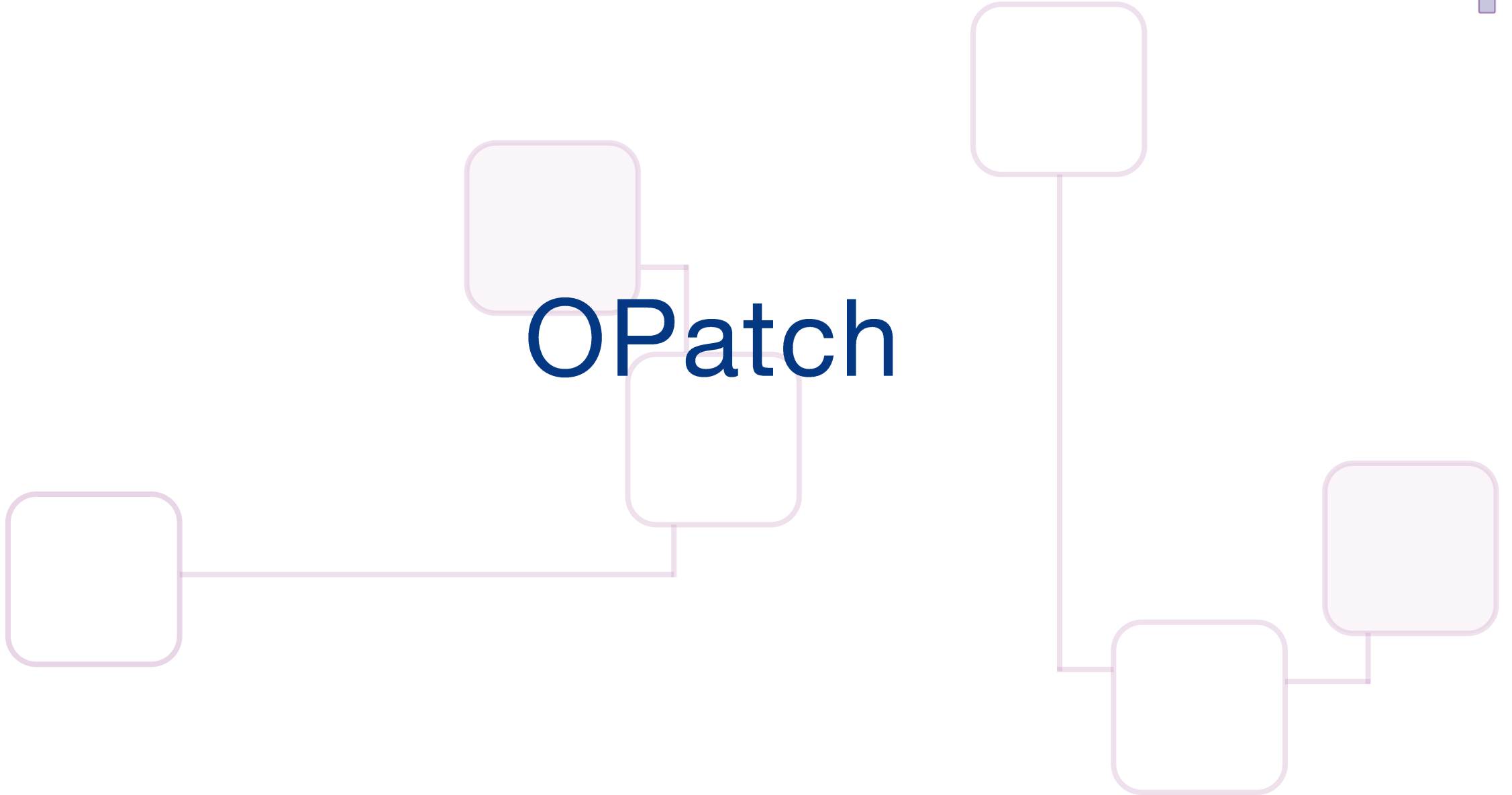
DATABASE RELEASE UPDATE 19.23.0.0.0 (Patch)

 p36233263_190000_Linux-x86-64.zip	1.7 GB
---	--------

Total 1 File (1 Patch)	About 29+ minutes (at 1024 KB/sec)	1.7 GB
------------------------	------------------------------------	--------

Note: A Single patch or product bundle can contain multiple files.

OPatch



OPatch

- Tool für die Installation der Software Patches
- Sollte immer aktuell sein!
 - siehe Patch Dokumentation

2.1 OPatch Utility

You must use the OPatch utility version 12.2.0.1.41 or later to apply this patch. Oracle recommends that you use the latest released OPatch version for 12.2, which is available for download from My Oracle Support patch [6880880](#) by selecting ARU link for the 12.2.0.1.0 OPatch release. It is recommended that you download the OPatch utility and the patch in a shared location to be able to access them from any node in the cluster for the patch application on each node.

When patching the GI home, a shared location on Oracle ACFS only needs to be unmounted on the node where the GI home is being patched.

The new OPatch utility should be updated in all of the Oracle RAC database homes and the GI home that are being patched.

For each Oracle RAC database home and the GI home that are being patched, as the home owner, extract the OPatch utility.

For exact instructions to install OPatch, follow the OPatch readme.

A new feature has been added to OPatch to increase performance by deleting inactive patches. See My Oracle Support document [2942102.1](#) *OPatch 12.2.0.1.37+ Introduces a New Feature to Delete Inactive Patches* in the `ORACLE_HOME/.patch_storage` directory.

OPatch-Download

OPatch ist unabhängig von der Datenbank Version. (siehe DB 18,19,20,21)


Patch 6880880

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Description


Product


Select a Release

Platform or Language 

Last Updated


Size


Entitlement Class 

Classification 

OPatch 12.2.0.1.42 for DB 19.0.0.0.0 (Apr 2024)

Oracle Global Lifecycle Management OPatch

OPatch 19.0.0.0.0 

Linux x86 

15-APR-2024

125M (131308977 bytes)

Software

General

[Download](#)
[View Readme](#)
[View Digest](#)

OPatch aktualisieren

- altes OPatch-Verzeichnis löschen
- p6800880.zip Datei in ORACLE_HOME entpacken:

```
$ cd /u01/app/oracle/product/19.0/dbhome_1
$ rm -rf OPatch/*
$ unzip /mnt/oracle/db/OPatch/p6880880_190000_Linux-x86-64.zip
...
```

Patch installieren

- Patches müssen vorher entpackt werden!

```
$ cd /mnt/oracle/db/19/patch/RU240416_Linux
$ unzip 36233263_190000_Linux-x86-64.zip
...
```

- Installation aus beliebigem Verzeichnis, jedoch besser aus dem Patch-Verzeichnis:

```
$ cd /mnt/oracle/db/19/patch/RU240416_Linux/36233263
$ $ORACLE_HOME/OPatch/opatch apply
...
```

Software-Installation

Installation der Software einschließlich Patchen:

Basis-Software
entpacken

OPatch ersetzen

runInstaller mit der
Option `-applyRU`
ausführen

Softwareinstallation mit Patch

```
$ cd /u01/app/oracle/product/19.0/dbhome_1
$ unzip /mnt/oracle/db/19/LINUX.X64_193000_db_home.zip
...
$ rm -rf OPatch/*
$ unzip /mnt/oracle/db/OPatch/p6880880_190000_Linux-x86-64.zip
...
$ ./runInstaller -silent -responseFile /home/oracle/sw_install.rsp -applyRU
/mnt/oracle/db/19/patch/RU240416_Linux/36233263
Preparing the home to patch...
Applying the patch /mnt/oracle/db/19/patch/RU240416_Linux/36233263...
Successfully applied the patch.
The log can be found at: /tmp/InstallActions2024-05-16_02-22-
23PM/installerPatchActions_2024-05-16_02-22-23PM.log
Launching Oracle Database Setup Wizard...
...
```

Read Only Oracle-Home



Read Only Oracle Home

eingeführt mit 18c

default in 21c

optional in 23c

- Oracle Homes beinhalten ausführbare Konfigurations- und Log-Dateien.
- Read Only Homes trennen diese in eigene Verzeichnisse.
 - einfacheres Patchen, Konfigurieren etc.
 - mehr Sicherheit
- Feature funktioniert tadellos, ist aber kein default mehr.

ORACLE_HOME

Verzeichnis enthält Unterverzeichnisse mit Logs, Traces und Konfigurationsdateien

`db`

Datenbank Parameter Datei (spfile.ora), Lock-Datei, Healthcheck-Datei

`rdbms/log`

Basislogdateien der Datenbank(en)

`rdbms/audit`

Auditinformationen für SYS User der Datenbank(en)

`network/admin`

Parameterdateien für die Client-Server-Kommunikation

`assistant/...`

Verzeichnisse für Database Configuration Assistant, Templates

Read Only Oracle Home

- ab Version 18c
- alle Log- und Konfigurationsdateien verschieben:

```
$ $ORACLE_HOME/bin/roohctl -enable
Enabling Read-Only Oracle home.
Update orabasetab file to enable Read-Only Oracle home.
Orabasetab file has been updated successfully.
Create bootstrap directories for Read-Only Oracle home.
Bootstrap directories have been created successfully.
Bootstrap files have been processed successfully.
Read-Only Oracle home has been enabled successfully.
Check the log file /u01/app/oracle/cfgtoollogs/roohctl/roohctl-
210726PM023845.log for more details.
```

Neue Verzeichnisstruktur

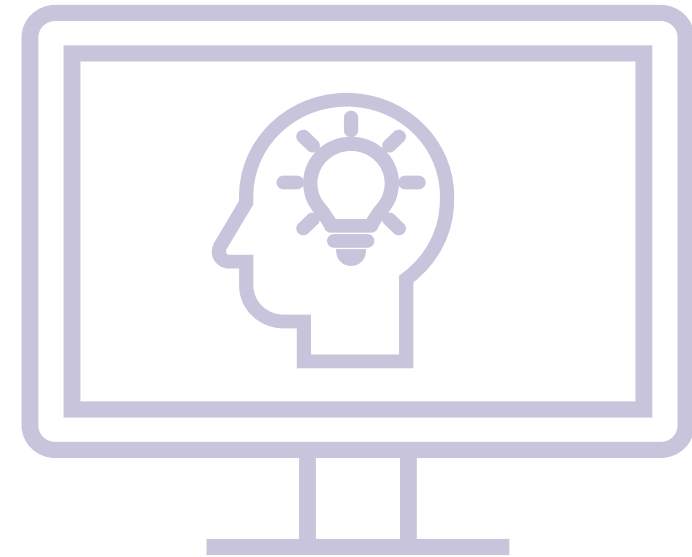
```
$ cd /u01/app/oracle
$ tree dbss homes
dbss
homes
├── OraDB19Home1
│   ├── assistants
│   │   └── dbca
│   │       └── templates
│   ├── dbs
│   ├── install
│   ├── network
│   │   ├── admin
│   │   ├── log
│   │   └── trace
│   └── rdbms
│       ├── audit
│       └── log

```

13 directories, 0 files

...und Oracle 23ai?

- Planung: Goldenimage von jedem RU
 - kein OPatch erforderlich
 - kein separates Auspacken der Patches
 - Out-Of-Place Patching als einzige Lösung



CarajanDB

Datenbank-Experten mit über 30 Jahren Erfahrung

- PostgreSQL



Was kann CarajanDB für Sie tun?


Kontaktmöglichkeiten

CarajanDB GmbH
Siemensstraße 25
50374 Erftstadt

www.carajandb.com

johannes.ahrends@carajandb.com

 +49 (22 35) 1 70 91 84

 +49 (1 70) 4 05 69 36

 @carajandb

 johannes.ahrends

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