

Upgrade of Oracle Real Application Cluster from Version 10.1.0.4 to 10.2.0.2

The upgrade was performed on a 2 node cluster running Linux x86-32bit as a test run. It was used to find problematic steps and to get an time estimate. The hosts are racnode1 and racnode2.

Steps:

1) Backup of RDBMS-Oracle-Home, CRS-Oracle-Home,Voting-Disk und OCR, as well as database

```
[root@racnode1 racnode1]# fdisk /dev/sdb

Command (m for help): p

Disk /dev/sdb: 123.5 GB, 123522416640 bytes
255 heads, 63 sectors/track, 15017 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/sdb1             1          3648     29302528+   83   Linux
/dev/sdb2          3649         15017     91321492+   83   Linux

cd /opt/oracle/oradata/DEV102/backup_RAC_10104
dd if=/dev/sdb1 of=FIREWIRE_SDB1
```

2) 10.2.0.1 upgrade für CRS (10.2: Clusterware)

(Documentation: Upgrade Guide 10.2, Oracle Clusterware and Real Application Cluster Installation Guide for Linux)

```
[oracle@racnode1 clusterware]$ ./cluvfy/runcluvfy.sh comp nodereach -n racnode1,racnode2 -
verbose

Verifying node reachability

Checking node reachability...

Check: Node reachability from node "racnode1"
  Destination Node                      Reachable?
-----
  racnode1                               yes
  racnode2                               yes
Result: Node reachability check passed from node "racnode1".

Verification of node reachability was successful.

[oracle@racnode1 clusterware]$ ./cluvfy/runcluvfy.sh stage -pre crsinst -n racnode1,racnode2

Performing pre-checks for cluster services setup

Checking node reachability...
Node reachability check passed from node "racnode1".

Checking user equivalence...
User equivalence check passed for user "oracle".

Checking administrative privileges...
User existence check passed for "oracle".
Group existence check passed for "oinstall".
Membership check for user "oracle" in group "oinstall" [as Primary] failed.
```

Check failed on nodes:
racnode1,racnode2

Administrative privileges check failed.

Checking node connectivity...

Node connectivity check passed for subnet "10.1.20.0" with node(s) racnode1,racnode2.
Node connectivity check passed for subnet "192.168.1.0" with node(s) racnode1,racnode2.

Suitable interfaces for the private interconnect on subnet "10.1.20.0":
racnode1 eth0:10.1.20.100
racnode2 eth0:10.1.20.101

Suitable interfaces for the private interconnect on subnet "192.168.1.0":
racnode1 eth1:192.168.1.4
racnode2 eth1:192.168.1.5

ERROR:
Could not find a suitable set of interfaces for VIPs.

Node connectivity check failed.

Checking system requirements for 'crs'...
Total memory check passed.
Free disk space check passed.
Swap space check passed.
System architecture check passed.
Kernel version check passed.
Package existence check passed for "make-3.79".
Package existence check passed for "binutils-2.14".
Package existence check passed for "gcc-3.2".
Package existence check passed for "glibc-2.3.2-95.27".
Package existence check passed for "compat-db-4.0.14-5".
Package existence check failed for "compat-gcc-7.3-2.96.128".
Check failed on nodes:
racnode1,racnode2
Package existence check failed for "compat-gcc-c++-7.3-2.96.128".
Check failed on nodes:
racnode1,racnode2
Package existence check failed for "compat-libstdc++-7.3-2.96.128".
Check failed on nodes:
racnode1,racnode2
Package existence check failed for "compat-libstdc++-devel-7.3-2.96.128".
Check failed on nodes:
racnode1,racnode2
Package existence check passed for "openmotif-2.2.3".
Package existence check passed for "setarch-1.3-1".
Group existence check passed for "dba".
Group existence check passed for "oinstall".
User existence check passed for "nobody".

System requirement failed for 'crs'

Pre-check for cluster services setup was unsuccessful on all the nodes.

Note:338924.1: CLUVFY Fails With Error: Could not find a suitable set of interfaces for VIPs

Per BUG:4437727, cluvfy makes an incorrect assumption based on RFC 1918 that any IP address that begins with any of the following octets is private and hence may not be fit for being used as a VIP:

172.16.x.x
192.168.x.x
10.x.x.x

However, this assumption does not take into account that it is possible to use these IPs as Public IP's on an internal network (or intranet). Therefore, it is very common to use IP addresses in these ranges as Public IP's and as Virtual IP(s).

Solution:

The solution to the error above that is given when running 'cluvfy' is to simply ignore it if you intend to use an IP in one of the above ranges for your VIP. The installation and configuration can continue with no corrective action necessary.

One result of this, as noted in the problem section, is that the silent VIPCA will fail at the end of the 10gR2 CRS installation. This is because VIPCA is running in silent mode and is trying to notify that the IPs that were provided may not be fit to be used as VIP(s). To correct this, you can manually execute the VIPCA after the CRS installation is complete. VIPCA needs to be executed from the CRS_HOME/bin directory as the 'root' user (on Unix/Linux) or as a Local Administrator (on Windows):

```
$ cd $ORA_CRS_HOME/bin
$ ./vipca
```

Follow the prompts for VIPCA to select the appropriate interface for the public network, and assign the VIPs for each node when prompted. Manually running VIPCA with the same IPs should complete successfully.

Note:316583.1: VIPCA FAILS COMPLAINING THAT INTERFACE IS NOT PUBLIC

Solution

Run as root on Unix or as local administrator on windows the command VIPCA manually.

```
#./vipca
```

This can be done immediately after the root.sh shows the errors on the screen.

```
[oracle@racnode1 cluvfy]$ ./runcluvfy.sh comp nodecon -n racnode1,racnode2 -verbose
```

```
Verifying node connectivity
```

```
Checking node connectivity...
```

```
Interface information for node "racnode1"
```

Interface Name	IP Address	Subnet
eth0	10.1.20.100	10.1.20.0
eth1	192.168.1.4	192.168.1.0

```
Interface information for node "racnode2"
```

Interface Name	IP Address	Subnet
eth0	10.1.20.101	10.1.20.0
eth1	192.168.1.5	192.168.1.0

```
Check: Node connectivity of subnet "10.1.20.0"
```

Source	Destination	Connected?
racnode1:eth0	racnode2:eth0	yes

```
Result: Node connectivity check passed for subnet "10.1.20.0" with node(s) racnode1,racnode2.
```

```
Check: Node connectivity of subnet "192.168.1.0"
```

Source	Destination	Connected?
racnode1:eth1	racnode2:eth1	yes

```
Result: Node connectivity check passed for subnet "192.168.1.0" with node(s) racnode1,racnode2.
```

```
Suitable interfaces for the private interconnect on subnet "10.1.20.0":  
racnode1 eth0:10.1.20.100  
racnode2 eth0:10.1.20.101
```

```
Suitable interfaces for the private interconnect on subnet "192.168.1.0":  
racnode1 eth1:192.168.1.4  
racnode2 eth1:192.168.1.5
```

ERROR:
Could not find a suitable set of interfaces for VIPs.

Result: Node connectivity check failed.

Verification of node connectivity was unsuccessful on all the nodes.

```
[oracle@racnode1 cluvfy]$ ./runcluvfy.sh comp sys -n racnode1,racnode2 -p crs -osdba dba -  
orainv dba
```

Verifying system requirement

```
Checking system requirements for 'crs'...  
Total memory check passed.  
Free disk space check passed.  
Swap space check passed.  
System architecture check passed.  
Kernel version check passed.  
Package existence check passed for "make-3.79".  
Package existence check passed for "binutils-2.14".  
Package existence check passed for "gcc-3.2".  
Package existence check passed for "glibc-2.3.2-95.27".  
Package existence check passed for "compat-db-4.0.14-5".  
Package existence check failed for "compat-gcc-7.3-2.96.128".  
Check failed on nodes:  
    racnode1,racnode2  
Package existence check failed for "compat-gcc-c++-7.3-2.96.128".  
Check failed on nodes:  
    racnode1,racnode2  
Package existence check failed for "compat-libstdc++-7.3-2.96.128".  
Check failed on nodes:  
    racnode1,racnode2  
Package existence check failed for "compat-libstdc++-devel-7.3-2.96.128".  
Check failed on nodes:  
    racnode1,racnode2  
Package existence check passed for "openmotif-2.2.3".  
Package existence check passed for "setarch-1.3-1".  
Group existence check passed for "dba".  
Group existence check passed for "dba".  
User existence check passed for "nobody".
```

System requirement failed for 'crs'

Verification of system requirement was unsuccessful on all the nodes.

```
./runcluvfy.sh comp sys -n racnode1,racnode2 -p database -osdba dba -orainv dba
```

Verifying system requirement

```
Checking system requirements for 'database'...  
Total memory check passed.  
Free disk space check passed.  
Swap space check passed.  
System architecture check passed.  
Kernel version check passed.  
Package existence check passed for "make-3.79".  
Package existence check passed for "binutils-2.14".  
Package existence check passed for "gcc-3.2".  
Package existence check passed for "compat-db-4.0.14-5".  
Package existence check failed for "compat-gcc-7.3-2.96.128".  
Check failed on nodes:  
    racnode1,racnode2  
Package existence check failed for "compat-gcc-c++-7.3-2.96.128".  
Check failed on nodes:
```

```
racnode1,racnode2
Package existence check failed for "compat-libstdc++-7.3-2.96.128".
Check failed on nodes:
racnode1,racnode2
Package existence check failed for "compat-libstdc++-devel-7.3-2.96.128".
Check failed on nodes:
racnode1,racnode2
Package existence check passed for "glibc-2.3.2-95.27".
Package existence check passed for "openmotif-2.2.3".
Package existence check passed for "setarch-1.3-1".
Kernel parameter check passed for "semmsl".
Kernel parameter check passed for "semmsn".
Kernel parameter check passed for "semopm".
Kernel parameter check passed for "semmsi".
Kernel parameter check passed for "shmll".
Kernel parameter check passed for "shmmni".
Kernel parameter check passed for "file-max".
Kernel parameter check passed for "rmem_default".
Kernel parameter check passed for "rmem_max".
Kernel parameter check passed for "wmem_default".
Kernel parameter check passed for "wmem_max".
Group existence check passed for "dba".
User existence check passed for "nobody".

System requirement failed for 'database'

Verification of system requirement was unsuccessful on all the nodes.
```

Cluster Verification Utility erkennt nicht, dass es sich um ein RedHat AS 4 handelt und berichtet, dass Pakete fehlen (common-gcc-3.2)

(14 Uhr)

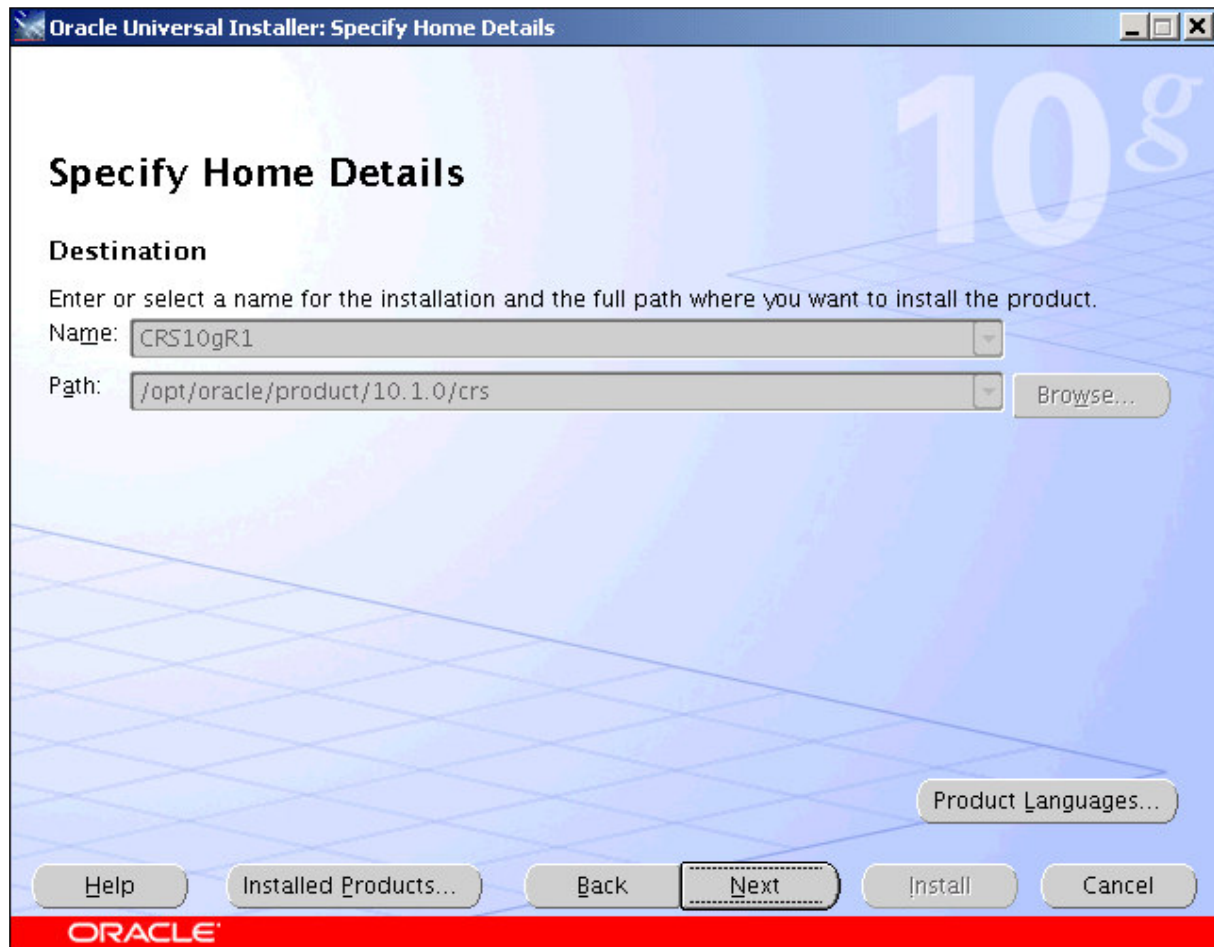
Stoppen aller RAC 10gR1 Komponenten

```
srvctl stop database -d DEVHA
srvctl stop nodeapps -n racnode2
srvctl stop nodeapps -n racnode1
```

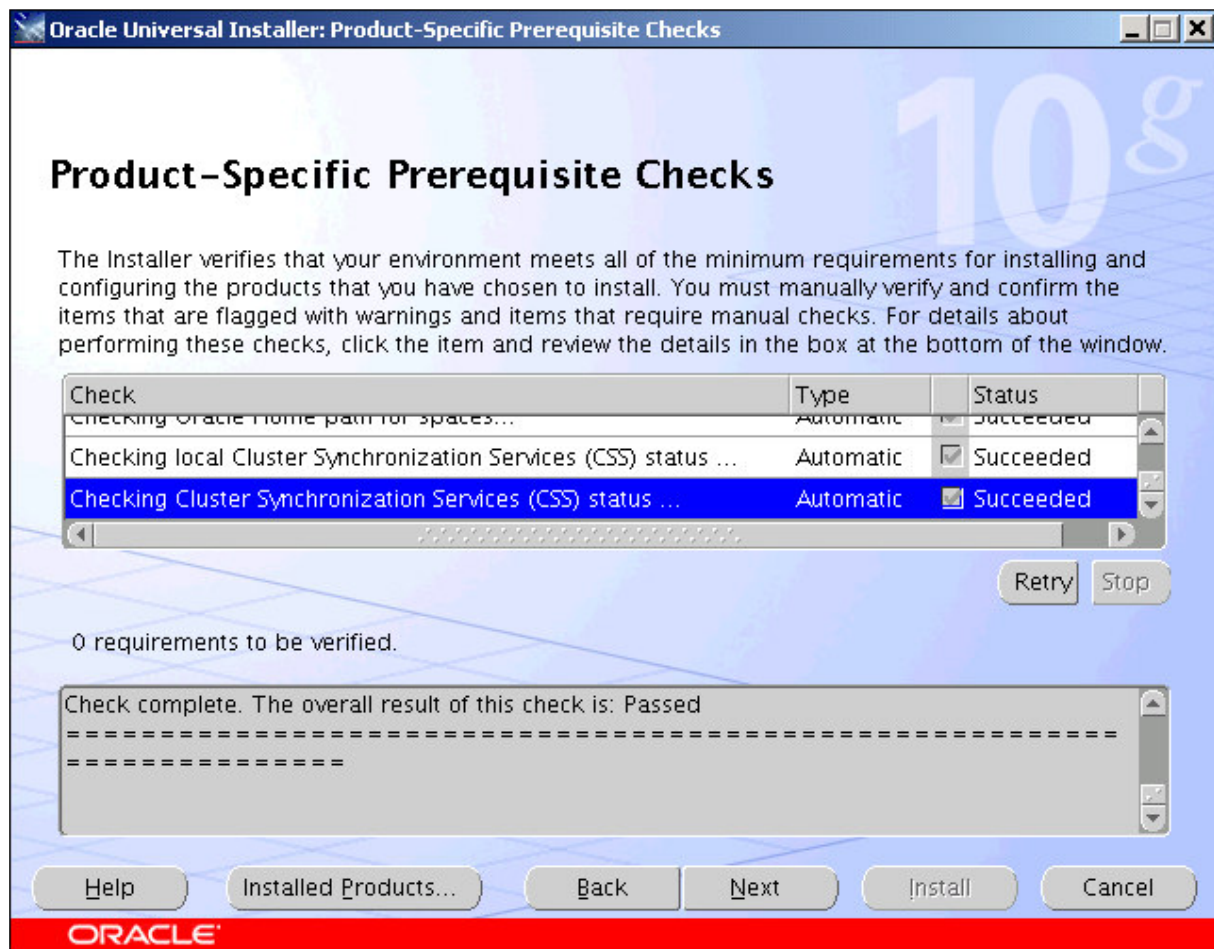
`./clusterware/preupdate.sh -crshome /opt/oracle/product/10.1.0/crs -crsuser oracle`
auf beiden Nodes.

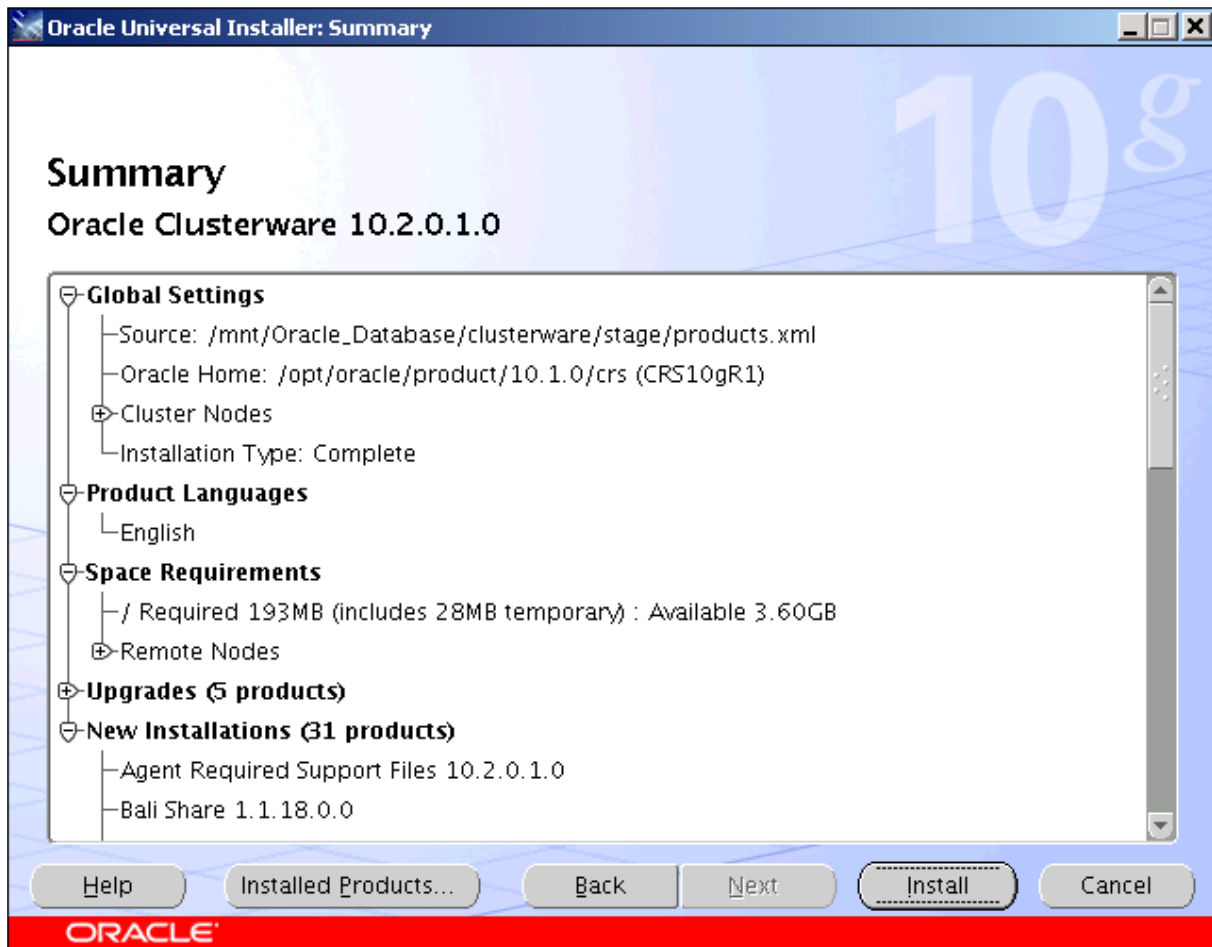
```
. DEVHA1.env
./runInstaller
```





Choose: Cluster Installation and select both nodes.





run root.sh on all nodes, one after the other.

```
[root@racnode1 log]# /opt/oracle/product/10.1.0/crs/install/rootupgrade
Checking to see if Oracle CRS stack is already up...

copying ONS config file to 10.2 CRS home
/opt/oracle/product/10.1.0/db/opmn/conf/ons.config was copied successfully to
/opt/oracle/product/10.1.0/crs/opmn/conf/ons.config
WARNING: directory '/opt/oracle/product/10.1.0' is not owned by root
WARNING: directory '/opt/oracle/product' is not owned by root
WARNING: directory '/opt/oracle' is not owned by root
Oracle Cluster Registry configuration upgraded successfully
Adding daemons to inittab
Startup will be queued to init within 90 seconds.
Waiting for the Oracle CRSD and EVMD to start
Waiting for the Oracle CRSD and EVMD to start
Oracle CRS stack is running under init(1M)
clscfg: EXISTING configuration version 2 detected.
clscfg: version 2 is 10G Release 1.
Successfully accumulated necessary OCR keys.
Using ports: CSS=49895 CRS=49896 EVMC=49898 and EVMR=49897.
node <nodenumber>: <nodename> <private interconnect name> <hostname>
node 1: racnode1 racnode1p racnode1
Creating OCR keys for user 'root', privgrp 'root'..
Operation successful.
clscfg -upgrade completed successfully
CRS stack on this node, is successfully upgraded from 10.1 to 10.2
```

```
[root@racnode2 upgrade]# /opt/oracle/product/10.1.0/crs/install/rootupgrade
Checking to see if Oracle CRS stack is already up...
```

```
copying ONS config file to 10.2 CRS home
/opt/oracle/product/10.1.0/db/opmn/conf/ons.config was copied successfully to
/opt/oracle/product/10.1.0/crs/opmn/conf/ons.config
WARNING: directory '/opt/oracle/product/10.1.0' is not owned by root
WARNING: directory '/opt/oracle/product' is not owned by root
WARNING: directory '/opt/oracle' is not owned by root
Oracle Cluster Registry configuration upgraded successfully
Adding daemons to inittab
Startup will be queued to init within 90 seconds.
Waiting for the Oracle CRSD and EVMD to start
Waiting for the Oracle CRSD and EVMD to start
Oracle CRS stack is running under init(1M)
clscfg: EXISTING configuration version 3 detected.
clscfg: version 3 is 10G Release 2.
Successfully accumulated necessary OCR keys.
Using ports: CSS=49895 CRS=49896 EVMC=49898 and EVMR=49897.
node <nodenumber>: <nodename> <private interconnect name> <hostname>
node 2: racnode2 racnode2p racnode2
Creating OCR keys for user 'root', privgrp 'root'..
Operation successful.
clscfg -upgrade completed successfully
CRS stack on this node, is successfully upgraded from 10.1 to 10.2
```



```
$ORACLE_CRS_HOME/bin/crsctl query crs softwareversion racnode1
CRS software version on node [racnode1] is [10.2.0.1.0]
```

```
$ORACLE_CRS_HOME/bin/crsctl query crs softwareversion racnode2
```

CRS software version on node [racnode2] is [10.2.0.1.0]

End: 14:30

Mirroring of OCR and Voting Disk:

```
ora_ocr_raw100m -> /dev/raw/raw17
ora_vote_raw_20m -> /dev/raw/raw18
```

```
ora_ocr_raw100m_02 -> /dev/raw/raw21
ora_vote_raw_20m_02 -> /dev/raw/raw23
```

```
dd if=/dev/zero of=/dev/rds/V1064_vote_01_20m.dbf bs=8192 count=2560
dd if=/dev/zero of=/dev/rds/ocrV1064_100m.ora bs=8192 count=12800
```

```
srvctl stop database -d DEVHA
srvctl stop nodeapps -n racnode2
srvctl stop nodeapps -n racnode1
```

```
[root@racnode1 bin]# ./crsctl query css votedisk
0.          0          /opt/oracle/oradata/DEVHA/crs/ora_vote_raw_20m
```

```
located 1votedisk(s).
[root@racnode1 bin]# ./crsctl add css votedisk
/opt/oracle/oradata/DEVHA/crs/ora_vote_raw20m_02
Cluster is not in a ready state for online disk addition
[root@racnode1 bin]# ls -altr
[root@racnode1 bin]# ./crsctl add css votedisk
/opt/oracle/oradata/DEVHA/crs/ora_vote_raw20m_02
Cluster is not in a ready state for online disk addition
[root@racnode1 bin]# ./crsctl add css votedisk
/opt/oracle/oradata/DEVHA/crs/ora_vote_raw20m_02
Cluster is not in a ready state for online disk addition
```

```
./ocrconfig -replace ocr /opt/oracle/oradata/DEVHA/crs/ora_ocr_raw100m_02
PROT-16: Internal Error
```

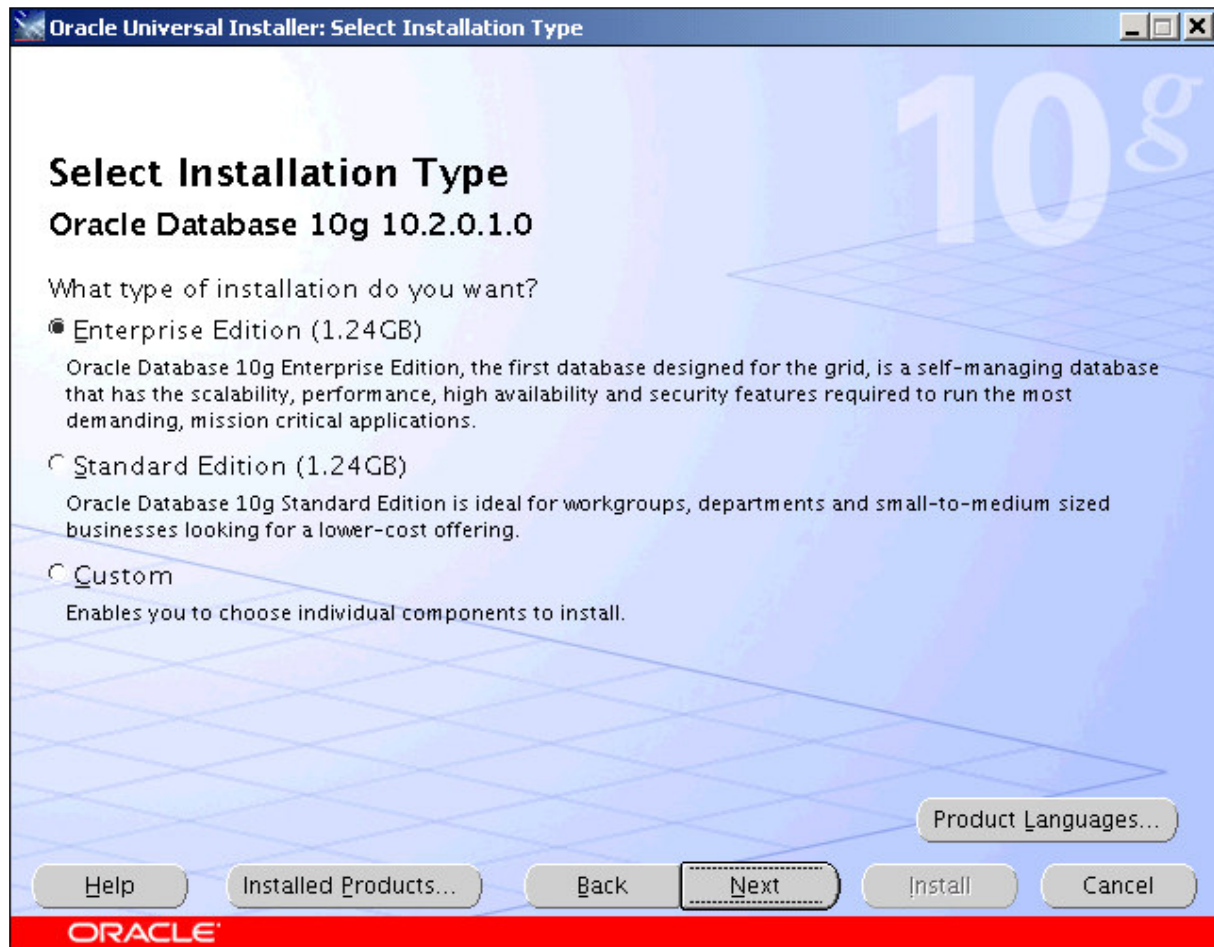
```
[root@racnode2 bin]# ./ocrconfig -replace ocrmirror
/opt/oracle/oradata/DEVHA/crs/ora_ocr_raw100m_02
PROT-22: Storage too small
```

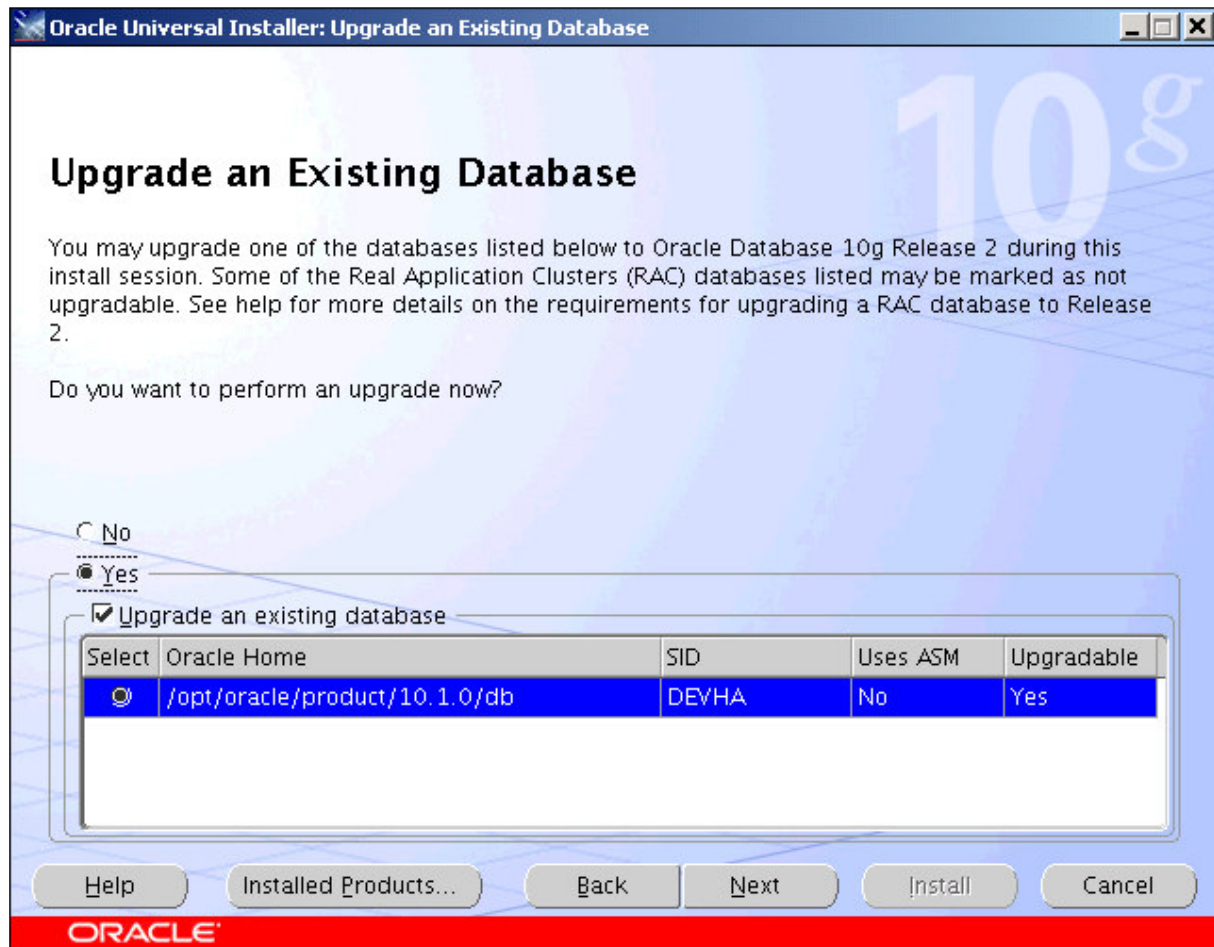
3) 10.2.0.1 upgrade für Cluster RDBMS Database (zuerst Binaries, dann SQL Update Script)

Start 16:00 Uhr

```
./runInstaller
```









Specify Home Details

Destination

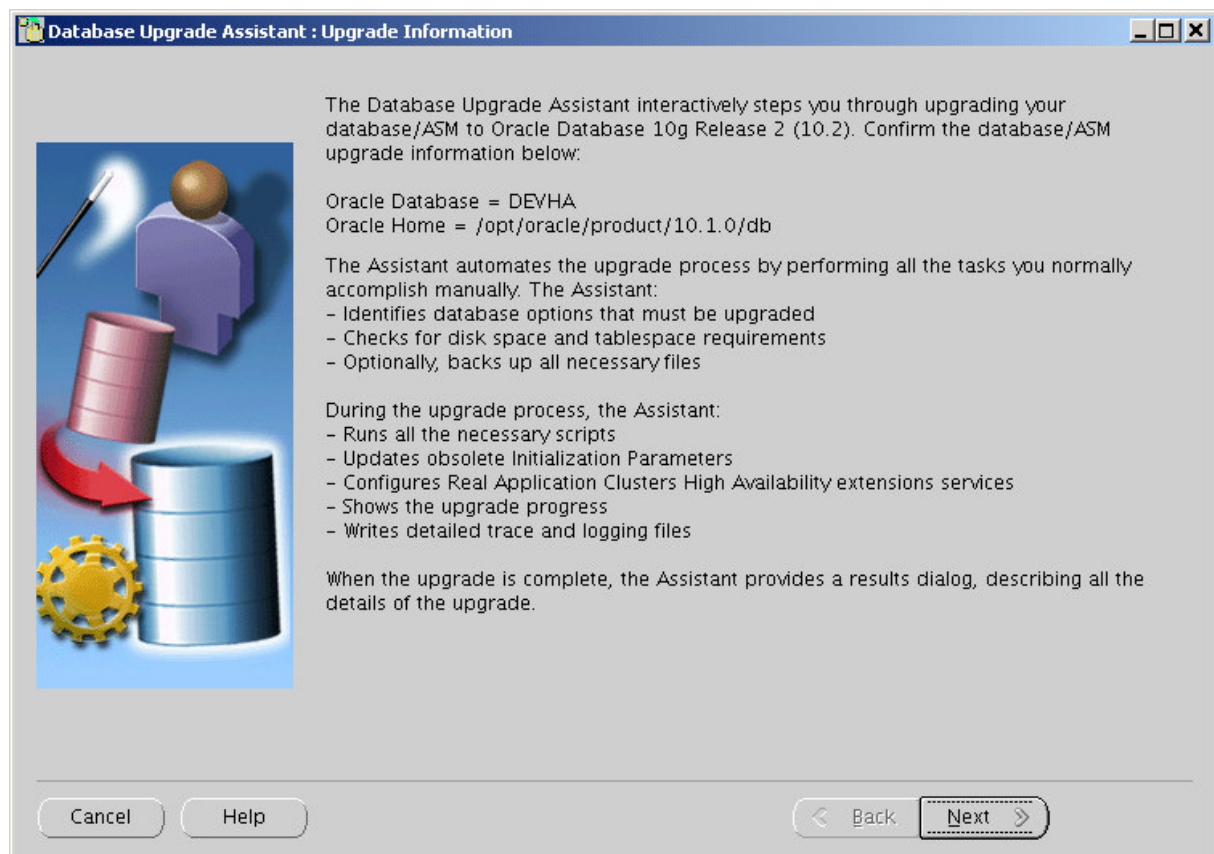
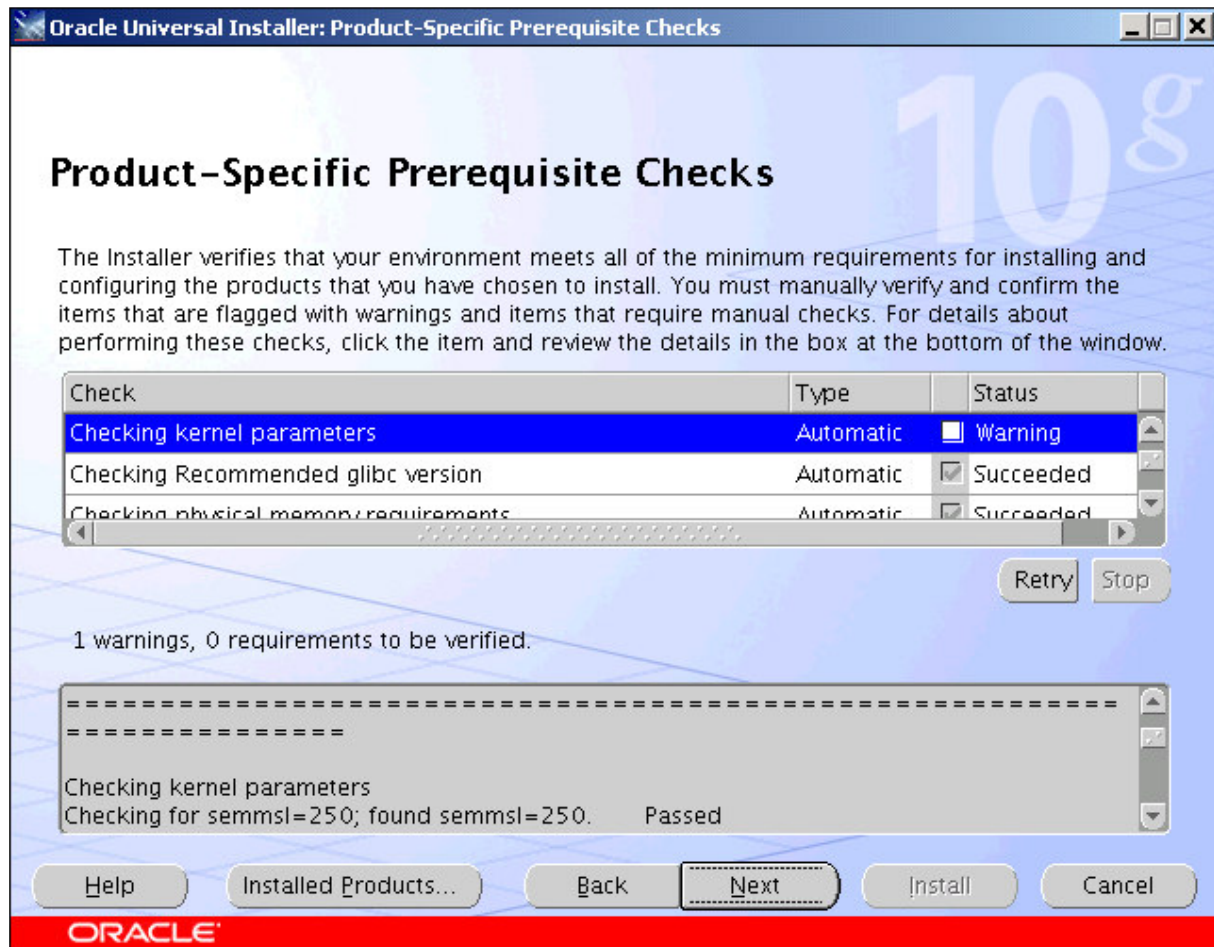
Enter or select a name for the installation and the full path where you want to install the product.

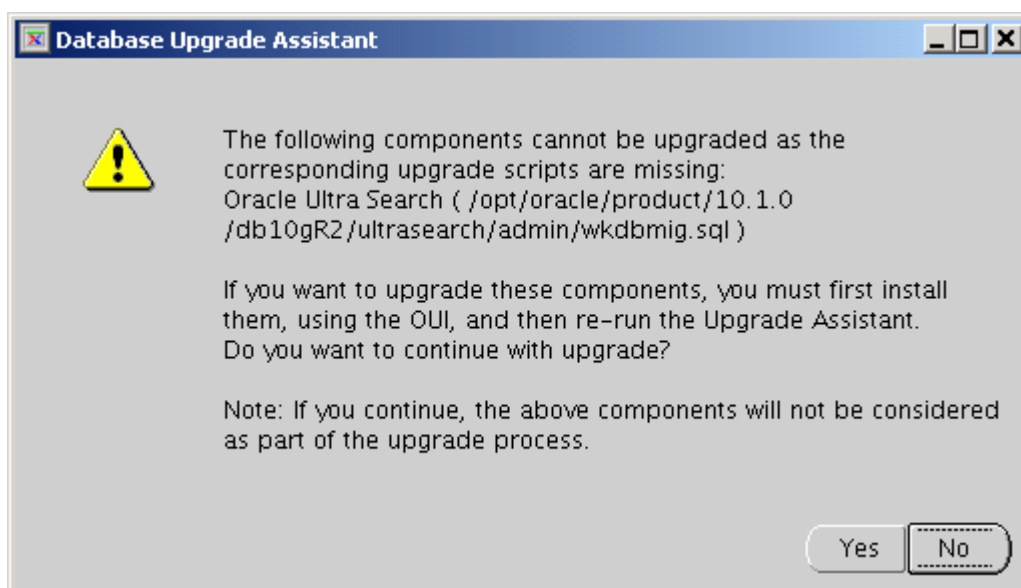
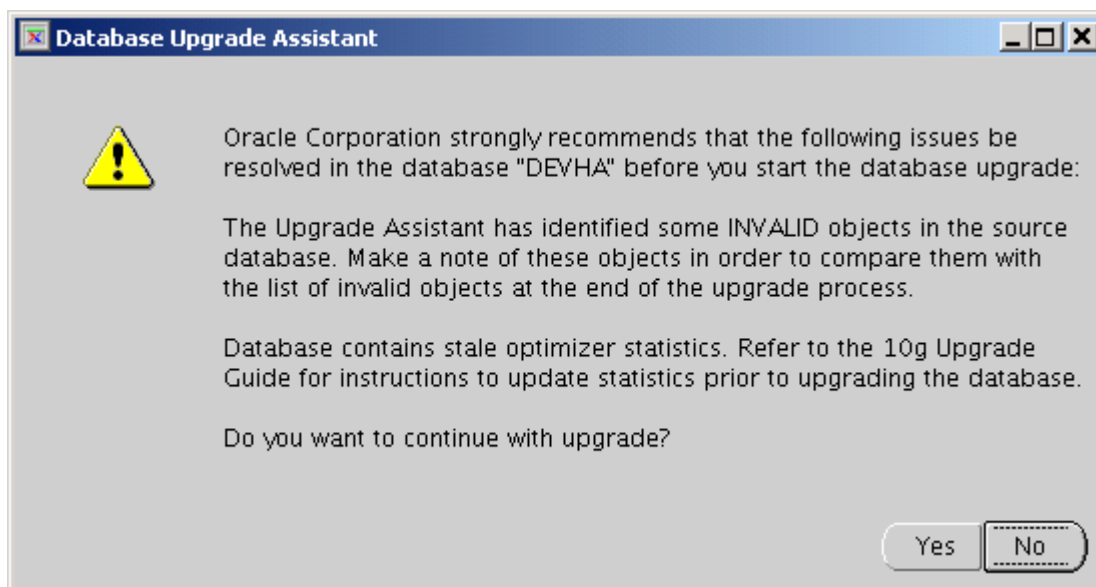
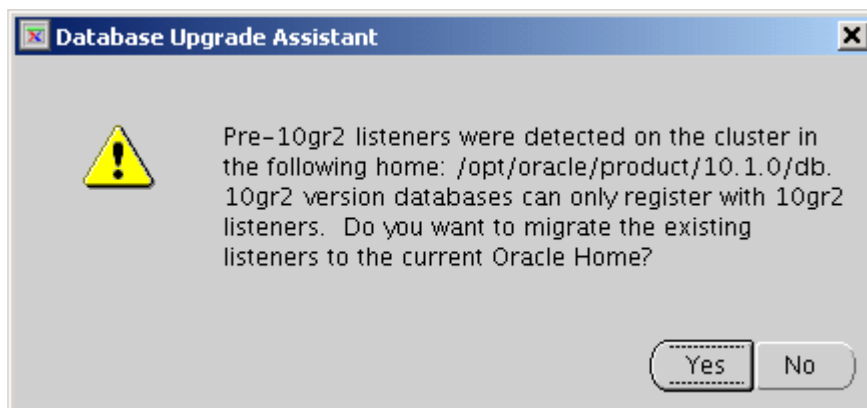
Name:

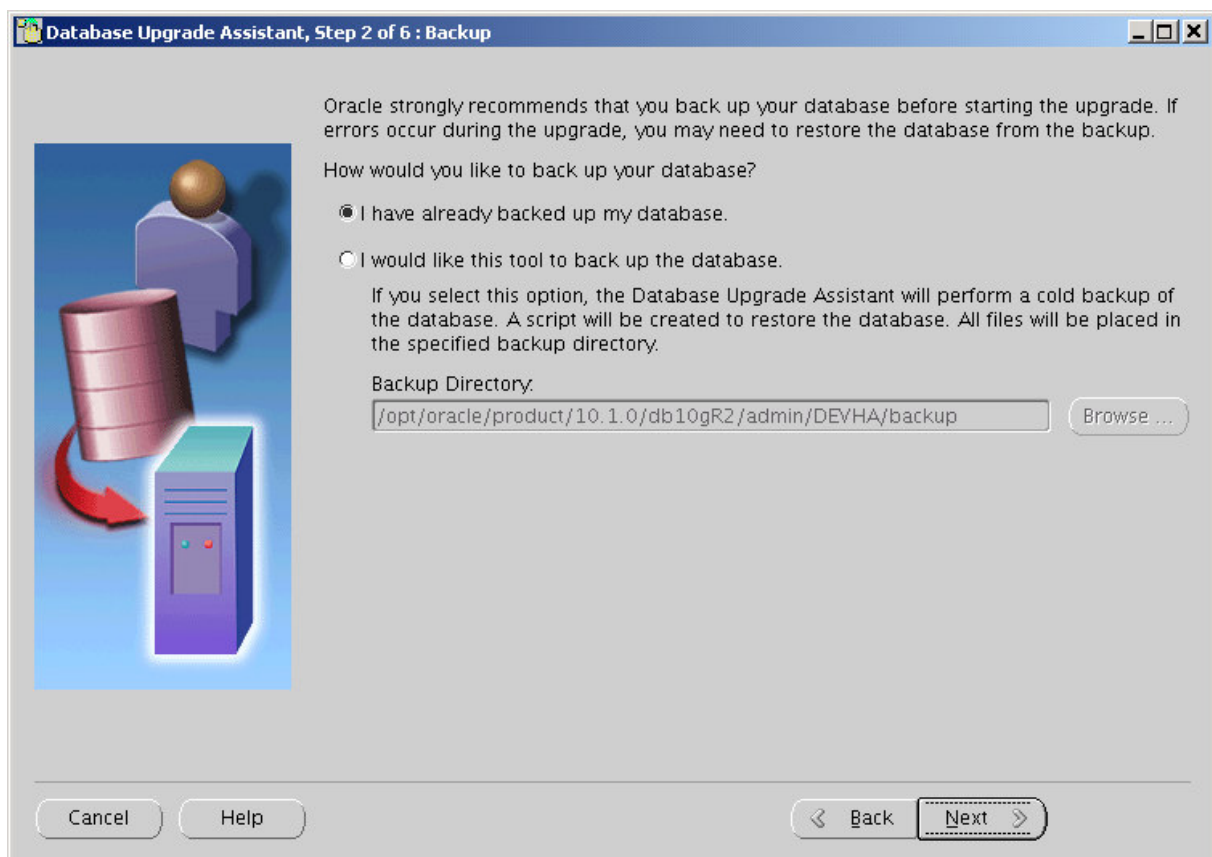
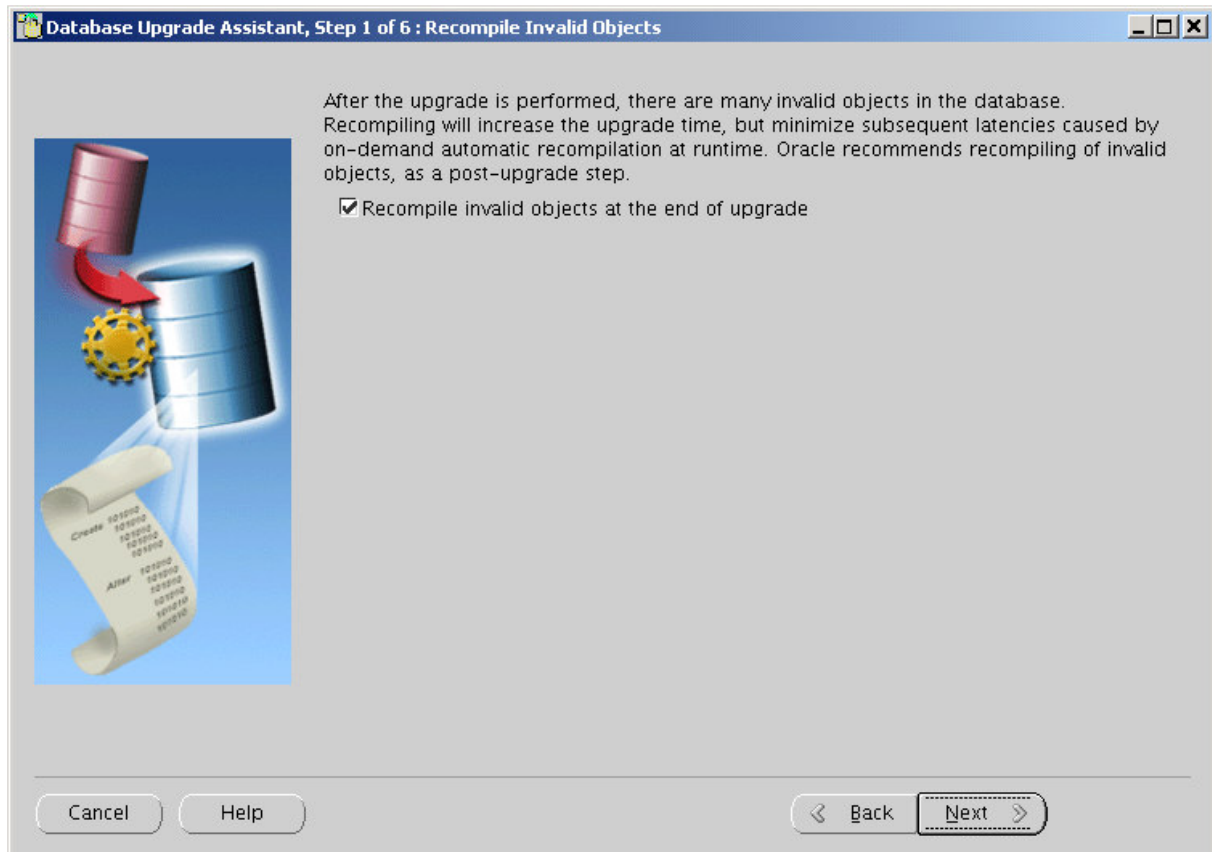
Path:

ORACLE®

Choose: Cluster installation and select all nodes.







Database Upgrade Assistant, Step 3 of 6 : Management Options

Each Oracle database may be managed centrally using the Oracle Enterprise Manager Grid Control or locally using the Oracle Enterprise Manager Database Control. Choose the management option that you would like to use to manage this database.

☐ **Configure the Database with Enterprise Manager**

☐ Use Grid Control for Database Management
Management Service:

☒ **Use Database Control for Database Management**

☐ Enable Email Notifications
Outgoing Mail (SMTP) Server:
Email Address:

☐ Enable Daily Backup
Backup Start Time: ☒ AM ☐ PM
OS Username:
Password:

Cancel Help Back Next

Database Upgrade Assistant: Progress

Upgrading database "DEVHA" from Oracle version "10.1.0.5.0" ("/opt/oracle/product/10.1.0/db") to Oracle version "10.2" ("/opt/oracle/product/10.1.0/db10gR2").

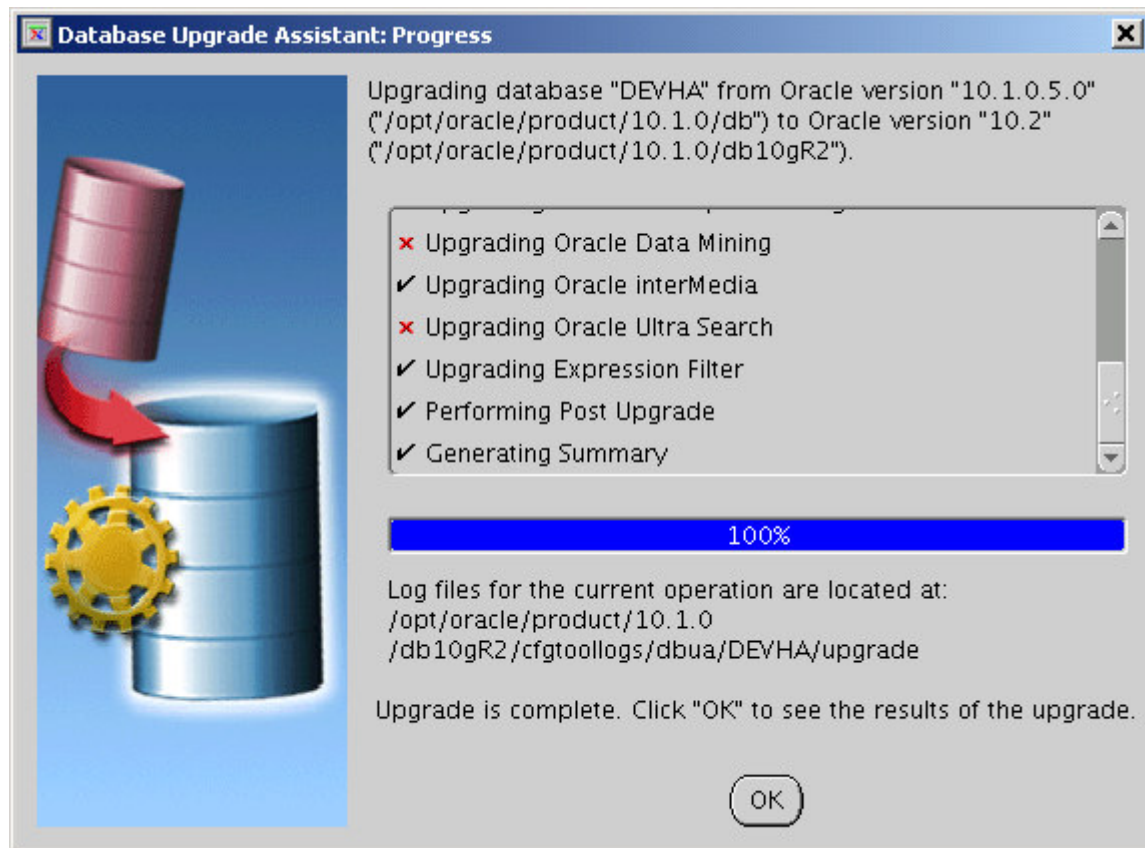
☒ **Performing Pre Upgrade**

- Upgrading Oracle Server
- Upgrading JServer JAVA Virtual Machine
- Upgrading Oracle XDK for Java

Oracle database upgrade in progress

Log files for the current operation are located at:
/opt/oracle/product/10.1.0
/db10gR2/cfgtoollogs/dbua/DEVHA/upgrade

Stop



Run root.sh on all nodes, one after the other.

End: 17:40

4) 10.2.0.1 upgrade für Companion 10gR2 products

Start: 8:45 Uhr

./runInstaller





Oracle Universal Installer: Specify Home Details

Specify Home Details

Destination

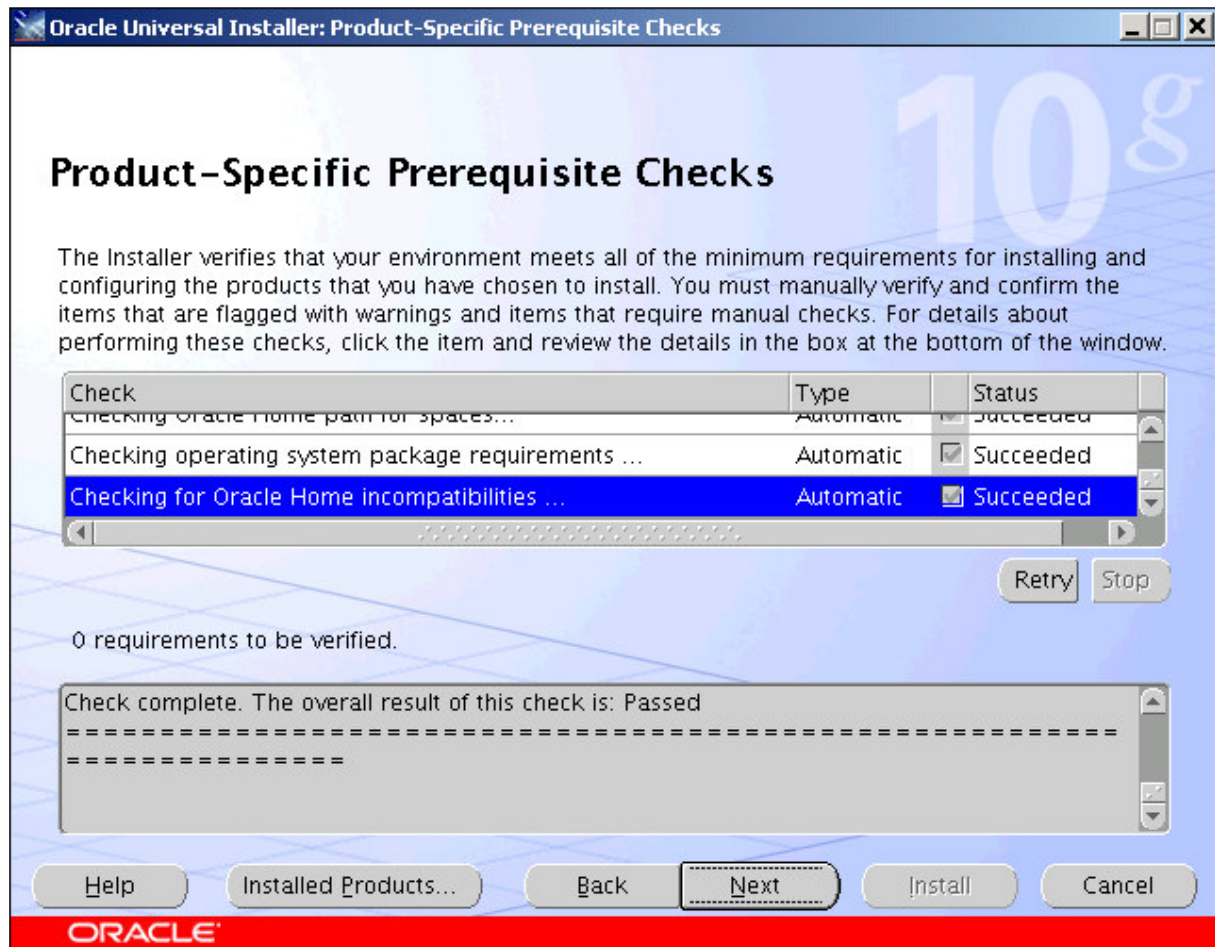
Enter or select a name for the installation and the full path where you want to install the product.

Name:

Path:

ORACLE®

Select Cluster Installation and select all nodes.





End: 09:00 Uhr

5) 10.2.0.2 Patchset für Clusterware

Start: 09:20

```
export ORACLE_HOME=$ORACLE_CRS_HOME
```

```
srvctl stop database -d DEVHA  
srvctl stop nodeapps -n racnode1  
srvctl stop nodeapps -n racnode2
```

```
[oracle@racnode1 db_10.2.0.2]$ crs_stat -t
```

Name	Type	Target	State	Host
ora....A1.inst	application	OFFLINE	OFFLINE	
ora....A2.inst	application	OFFLINE	OFFLINE	
ora....HA2.srv	application	OFFLINE	OFFLINE	
ora....ARAL.cs	application	OFFLINE	OFFLINE	
ora....HA1.srv	application	OFFLINE	OFFLINE	
ora...._BKP.cs	application	OFFLINE	OFFLINE	
ora....HA1.srv	application	OFFLINE	OFFLINE	
ora....JOBS.cs	application	OFFLINE	OFFLINE	
ora....HA2.srv	application	OFFLINE	OFFLINE	
ora...._POS.cs	application	OFFLINE	OFFLINE	
ora....HA1.srv	application	OFFLINE	OFFLINE	
ora...._BKP.cs	application	OFFLINE	OFFLINE	
ora....HA1.srv	application	OFFLINE	OFFLINE	
ora...._WEB.cs	application	OFFLINE	OFFLINE	
ora....HA2.srv	application	OFFLINE	OFFLINE	
ora...._BKP.cs	application	OFFLINE	OFFLINE	
ora.DEVHA.db	application	OFFLINE	OFFLINE	
ora....04.lsnr	application	OFFLINE	OFFLINE	
ora....a04.gsd	application	OFFLINE	OFFLINE	
ora....a04.ons	application	OFFLINE	OFFLINE	
ora....a04.vip	application	OFFLINE	OFFLINE	
ora....05.lsnr	application	OFFLINE	OFFLINE	
ora....a05.gsd	application	OFFLINE	OFFLINE	
ora....a05.ons	application	OFFLINE	OFFLINE	
ora....a05.vip	application	OFFLINE	OFFLINE	



Oracle Universal Installer: Specify Home Details

Specify Home Details

Destination

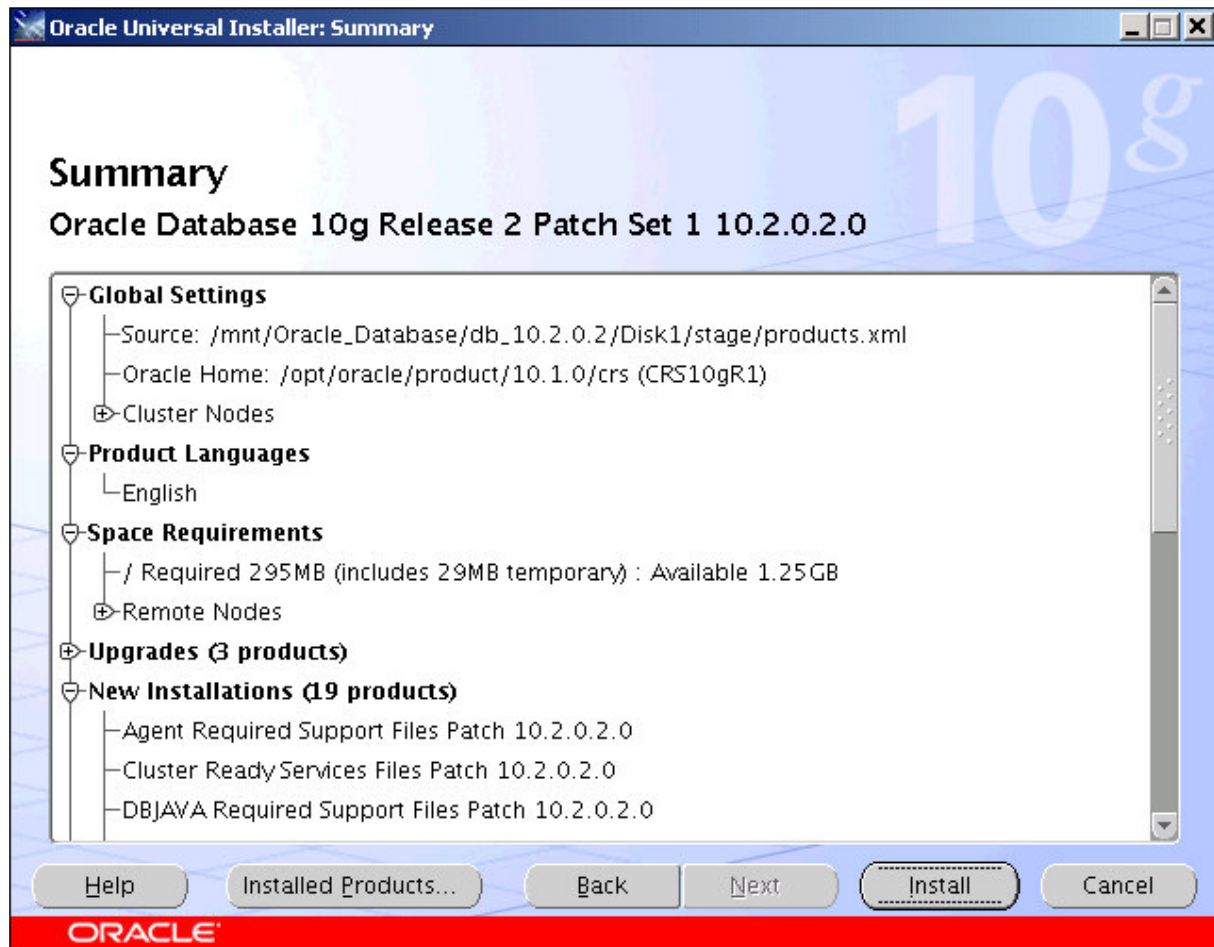
Enter or select a name for the installation and the full path where you want to install the product.

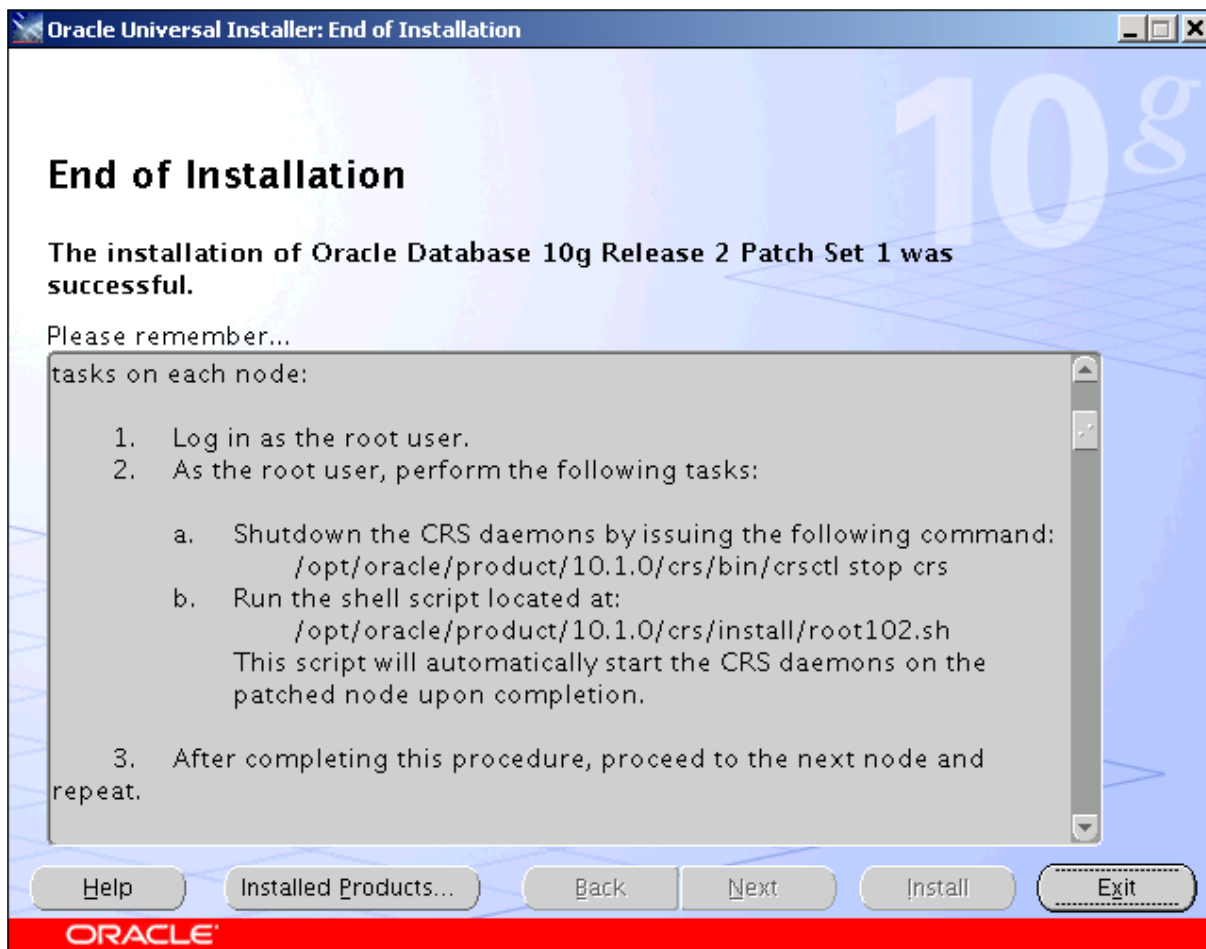
Name:

Path:

ORACLE®

Choose Cluster Installation and select all nodes.





```
[root@racnode1 ~]# /opt/oracle/product/10.1.0/crs/bin/crsctl stop crs
Stopping resources.
Successfully stopped CRS resources
Stopping CSSD.
Shutting down CSS daemon.
Shutdown request successfully issued.
[root@racnode1 ~]# /opt/oracle/product/10.1.0/crs/install/root102.sh
Creating pre-patch directory for saving pre-patch clusterware files
Completed patching clusterware files to /opt/oracle/product/10.1.0/crs
Relinking some shared libraries.
Relinking of patched files is complete.
WARNING: directory '/opt/oracle/product/10.1.0' is not owned by root
WARNING: directory '/opt/oracle/product' is not owned by root
WARNING: directory '/opt/oracle' is not owned by root
Preparing to recopy patched init and RC scripts.
Recopying init and RC scripts.
Status of Oracle Cluster Registry is as follows :
  Version               :          2
  Total space (kbytes)   :           0
  Used space (kbytes)    :         6508
  Available space (kbytes) : 4294960788
  ID                     : 945896861
  Device/File Name       : /opt/oracle/oradata/DEVHA/crs/ora_ocr_raw100m
                        Device/File integrity check succeeded

                        Device/File not configured

Cluster registry integrity check succeeded

Startup will be queued to init within 90 seconds.
Starting up the CRS daemons.
Waiting for the patched CRS daemons to start.
  This may take a while on some systems.
.
.
```

```
.
10202 patch successfully applied.
clscfg: EXISTING configuration version 3 detected.
clscfg: version 3 is 10G Release 2.
Successfully accumulated necessary OCR keys.
Using ports: CSS=49895 CRS=49896 EVMC=49898 and EVMR=49897.
node <nodenumber>: <nodename> <private interconnect name> <hostname>
node 1: racnode1 racnode1p racnode1
Creating OCR keys for user 'root', privgrp 'root'..
Operation successful.
clscfg -upgrade completed successfully
[root@racnode1 ~]#

[root@racnode2 ~]# /opt/oracle/product/10.1.0/crs/bin/crsctl stop crs
Stopping resources.
Successfully stopped CRS resources
Stopping CSSD.
Shutting down CSS daemon.
Shutdown request successfully issued.
[root@racnode2 ~]# /opt/oracle/product/10.1.0/crs/install/root102.sh
Creating pre-patch directory for saving pre-patch clusterware files
Completed patching clusterware files to /opt/oracle/product/10.1.0/crs
Relinking some shared libraries.
Relinking of patched files is complete.
WARNING: directory '/opt/oracle/product/10.1.0' is not owned by root
WARNING: directory '/opt/oracle/product' is not owned by root
WARNING: directory '/opt/oracle' is not owned by root
Preparing to recopy patched init and RC scripts.
Recopying init and RC scripts.
Status of Oracle Cluster Registry is as follows :
      Version               :                2
    Total space (kbytes)    :           102184
      Used space (kbytes)   :             6584
    Available space (kbytes):           95600
        ID                  :    945896861
    Device/File Name        : /opt/oracle/oradata/DEVHA/crs/ora_ocr_raw100m
                          Device/File integrity check succeeded

                          Device/File not configured

Cluster registry integrity check succeeded

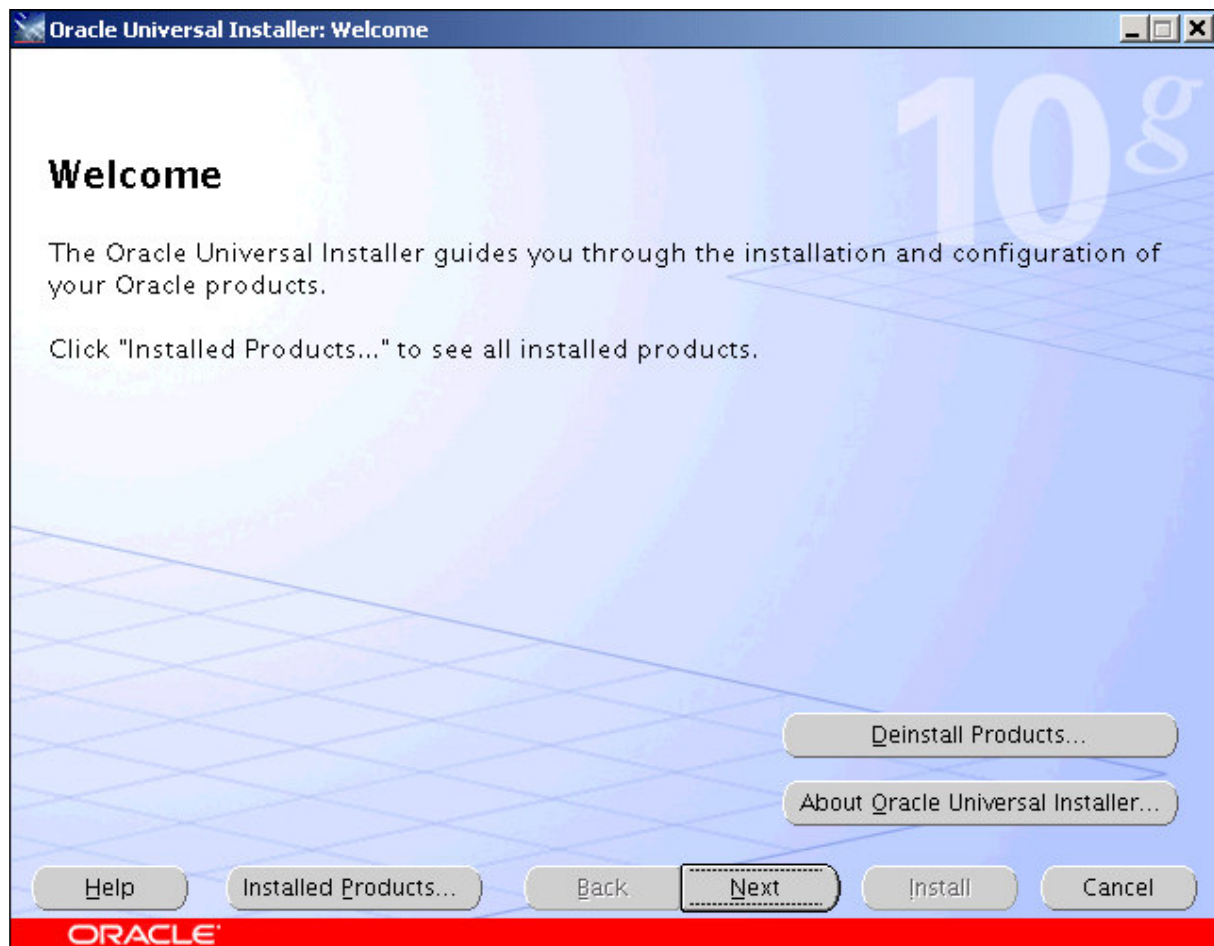
Startup will be queued to init within 90 seconds.
Starting up the CRS daemons.
Waiting for the patched CRS daemons to start.
  This may take a while on some systems.
.
.
.
10202 patch successfully applied.
clscfg: EXISTING configuration version 3 detected.
clscfg: version 3 is 10G Release 2.
Successfully accumulated necessary OCR keys.
Using ports: CSS=49895 CRS=49896 EVMC=49898 and EVMR=49897.
node <nodenumber>: <nodename> <private interconnect name> <hostname>
node 2: racnode2 racnode2p racnode2
Creating OCR keys for user 'root', privgrp 'root'..
Operation successful.
clscfg -upgrade completed successfully
```

End: 09:40

6) 10.2.0.2 Patchset für Oracle RDBMS (zuerst Binaries, dann SQL Update Script)

```
srvctl stop database -d DEVHA  
srvctl stop listener -n racnode1  
srvctl stop listener -n racnode2  
./runInstaller
```

Start: 09:40



Specify Home Details

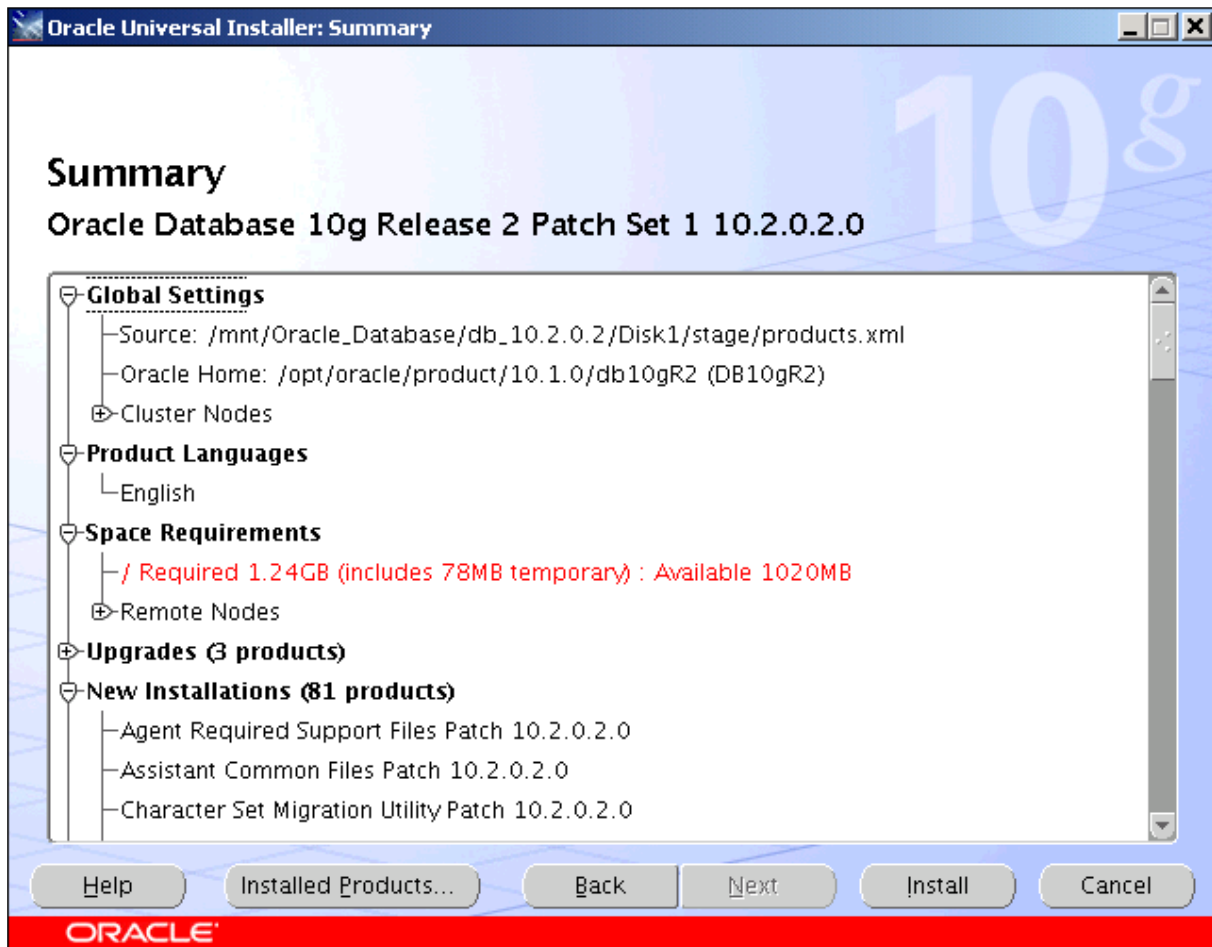
Destination

Enter or select a name for the installation and the full path where you want to install the product.

Name:

Path:

Choose Cluster Installation and select all nodes.



Run root.sh on all nodes, one after the other.

```
[root@racnode1 install]# /opt/oracle/product/10.1.0/db10gR2/root.sh
Running Oracle10 root.sh script...
```

```
The following environment variables are set as:
ORACLE_OWNER= oracle
ORACLE_HOME= /opt/oracle/product/10.1.0/db10gR2
```

```
Enter the full pathname of the local bin directory: [/usr/local/bin]:
The file "dbhome" already exists in /usr/local/bin. Overwrite it? (y/n)
[n]: y
Copying dbhome to /usr/local/bin...
The file "oraenv" already exists in /usr/local/bin. Overwrite it? (y/n)
[n]: y
Copying oraenv to /usr/local/bin ...
The file "coraenv" already exists in /usr/local/bin. Overwrite it? (y/n)
[n]: y
Copying coraenv to /usr/local/bin ...
```

```
Entries will be added to the /etc/oratab file as needed by
Database Configuration Assistant when a database is created
Finished running generic part of root.sh script.
Now product-specific root actions will be performed.
```

```
/opt/oracle/product/10.1.0/db10gR2/root.sh
Running Oracle10 root.sh script...
```

```
The following environment variables are set as:
ORACLE_OWNER= oracle
ORACLE_HOME= /opt/oracle/product/10.1.0/db10gR2
```

```
Enter the full pathname of the local bin directory: [/usr/local/bin]:
The file "dbhome" already exists in /usr/local/bin. Overwrite it? (y/n)
[n]: y
```

```
Copying dbhome to /usr/local/bin ...
The file "oraenv" already exists in /usr/local/bin. Overwrite it? (y/n)
[n]: y
Copying oraenv to /usr/local/bin ...
The file "coraenv" already exists in /usr/local/bin. Overwrite it? (y/n)
[n]: y
Copying coraenv to /usr/local/bin ...

Entries will be added to the /etc/oratab file as needed by
Database Configuration Assistant when a database is created
Finished running generic part of root.sh script.
Now product-specific root actions will be performed.
```



End: 10:00 Uhr

SQL:

Start: 10:10 Uhr

```
sqlplus "/as sysdba"
```

```
SQL*Plus: Release 10.2.0.2.0 - Production on Fri Jul 28 10:08:54 2006
```

```
Copyright (c) 1982, 2005, Oracle. All Rights Reserved.
```

```
Connected to an idle instance.
```

```
SQL> startup nomount
ORACLE instance started.
```

```
Total System Global Area 285212672 bytes
Fixed Size                  1260420 bytes
Variable Size               150996092 bytes
```

```
Database Buffers      130023424 bytes
Redo Buffers          2932736 bytes
SQL> SHOW PARAMETER PFILE;
```

NAME	TYPE	VALUE
spfile	string	/dev/raw/raw19

```
SQL> SHOW PARAMETER SHARED_POOL_SIZE
```

NAME	TYPE	VALUE
shared_pool_size	big integer	0

```
SQL> SHOW PARAMETER JAVA_POOL_SIZE
```

NAME	TYPE	VALUE
java_pool_size	big integer	0

```
SQL> show parameter sga
```

NAME	TYPE	VALUE
lock_sga	boolean	FALSE
pre_page_sga	boolean	FALSE
sga_max_size	big integer	272M
sga_target	big integer	272M

```
SQL> alter system
```

```
SQL> alet
SP2-0042: unknown command "alet" - rest of line ignored.
SQL> alter system set sga_max_size=350m scope=spfile;
```

System altered.

```
SQL> alter system set sga_target=350m scope=spfile;
```

System altered.

```
SQL> shutdown
```

```
[oracle@racnode1 ~]$ srvctl start listener -n racnode1
[oracle@racnode1 ~]$ srvctl start listener -n racnode2
```

```
[oracle@racnode1 ~]$ sqlplus /nolog
```

SQL*Plus: Release 10.2.0.2.0 - Production on Fri Jul 28 10:12:07 2006

Copyright (c) 1982, 2005, Oracle. All Rights Reserved.

```
SQL> CONNECT / AS SYSDBA
Connected to an idle instance.
SQL> STARTUP NOMOUNT
ORACLE instance started.
```

```
Total System Global Area  369098752 bytes
Fixed Size                  1260924 bytes
Variable Size               146801284 bytes
Database Buffers            218103808 bytes
Redo Buffers                 2932736 bytes
SQL> ALTER SYSTEM SET CLUSTER_DATABASE=FALSE SCOPE=spfile;
```

System altered.

```
SQL> SHUTDOWN
ORA-01507: database not mounted
```

```
ORACLE instance shut down.
SQL> SHUTDOWN
ORA-01012: not logged on
SQL> STARTUP UPGRADE
ORACLE instance started.
```

```
Total System Global Area  369098752 bytes
Fixed Size                  1260924 bytes
Variable Size               150995588 bytes
Database Buffers            213909504 bytes
```

```
Redo Buffers                2932736 bytes
Database mounted.
SDatabase opened.
SQL>SPOOL patch.log
SQL> @?/rdbms/admin/catupgrd.sql
```

...

```
Oracle Database 10.2 Upgrade Status Utility          07-28-2006 10:39:54
.
Component                                Status      Version    HH:MM:SS
Oracle Database Server                   VALID      10.2.0.2.0 00:12:39
JServer JAVA Virtual Machine             VALID      10.2.0.2.0 00:03:52
Oracle XDK                               VALID      10.2.0.2.0 00:01:15
Oracle Database Java Packages            VALID      10.2.0.2.0 00:00:57
Oracle Text                              VALID      10.2.0.2.0 00:00:31
Oracle XML Database                      VALID      10.2.0.2.0 00:01:27
Oracle Real Application Clusters          VALID      10.2.0.2.0 00:00:01
Oracle Data Mining                       INVALID    00:00:00
Oracle interMedia                        VALID      10.2.0.2.0 00:05:54
Oracle Ultra Search                      INVALID    10.1.0.5.0 00:00:00
Oracle Expression Filter                  VALID      10.2.0.2.0 00:00:15
.
Total Upgrade Time: 00:26:55
```

```
SQL> SHUTDOWN
SQL> STARTUP

SQL> @?/rdbms/admin/utlrp.sql
```

End: 10:45

7) CPU July 2006 für RDBMS-Oracle-Home (zuerst Binaries, dann SQL Update Script)

Start: 11:00 Uhr

```
[oracle@racnode1 5225799]$ srvctl stop database -d DEVHA
[oracle@racnode1 5225799]$ srvctl stop nodeapps -n racnode1
[oracle@racnode1 5225799]$ srvctl stop nodeapps -n racnode2
[oracle@racnode1 5225799]$ crs_stat -t
Name                Type             Target          State          Host
-----
ora....A1.inst      application       OFFLINE         OFFLINE
ora....A2.inst      application       OFFLINE         OFFLINE
ora....HA2.srv       application       OFFLINE         OFFLINE
ora....ARAL.cs       application       OFFLINE         OFFLINE
ora....HA1.srv       application       OFFLINE         OFFLINE
ora...._BKP.cs       application       OFFLINE         OFFLINE
ora....HA1.srv       application       OFFLINE         OFFLINE
ora....JOBS.cs       application       OFFLINE         OFFLINE
ora....HA2.srv       application       OFFLINE         OFFLINE
ora...._POS.cs       application       OFFLINE         OFFLINE
ora....HA1.srv       application       OFFLINE         OFFLINE
ora...._BKP.cs       application       OFFLINE         OFFLINE
ora....HA1.srv       application       OFFLINE         OFFLINE
ora...._WEB.cs       application       OFFLINE         OFFLINE
ora....HA2.srv       application       OFFLINE         OFFLINE
ora...._BKP.cs       application       OFFLINE         OFFLINE
ora.DEVHA.db         application       OFFLINE         OFFLINE
ora....04.lsnr       application       OFFLINE         OFFLINE
ora....a04.gsd       application       OFFLINE         OFFLINE
ora....a04.ons       application       OFFLINE         OFFLINE
ora....a04.vip       application       OFFLINE         OFFLINE
ora....05.lsnr       application       OFFLINE         OFFLINE
ora....a05.gsd       application       OFFLINE         OFFLINE
ora....a05.ons       application       OFFLINE         OFFLINE
ora....a05.vip       application       OFFLINE         OFFLINE
[oracle@racnode1 5225799]$ /opt/oracle/product/10.1.0/db10gR2/OPatch/patch apply -local
Invoking OPatch 10.2.0.2.0
```

Oracle interim Patch Installer version 10.2.0.2.0
Copyright (c) 2005, Oracle Corporation. All rights reserved..

```
Oracle Home          : /opt/oracle/product/10.1.0/db10gR2
Central Inventory     : /opt/oracle/oraInventory
   from               : /opt/oracle/product/10.1.0/db10gR2/oraInst.loc
OPatch version        : 10.2.0.2.0
OUI version           : 10.2.0.2.0
OUI location          : /opt/oracle/product/10.1.0/db10gR2/oui
Log file location     : /opt/oracle/product/10.1.0/db10gR2/cfgtoollogs/patch/patch-
2006_Jul_28_11-05-51-CEST_Fri.log
```

```
ApplySession applying interim patch '5225799' to OH '/opt/oracle/product/10.1.0/db10gR2'
Invoking fuser to check for active processes.
Invoking fuser on "/opt/oracle/product/10.1.0/db10gR2/bin/tnslsnr"
Invoking fuser on "/opt/oracle/product/10.1.0/db10gR2/bin/lsnrctl"
Invoking fuser on "/opt/oracle/product/10.1.0/db10gR2/bin/oracle"
```

You selected -local option, hence OPatch will patch the local system only.

Please shutdown Oracle instances running out of this ORACLE_HOME on the local system.
(Oracle Home = '/opt/oracle/product/10.1.0/db10gR2')

Is the local system ready for patching?

Do you want to proceed? [y|n]

y

User Responded with: Y

Backing up files and inventory (not for auto-rollback) for the Oracle Home

Backing up files affected by the patch '5225799' for restore. This might take a while...

Backing up files affected by the patch '5225799' for rollback. This might take a while...

Execution of 'sh /mnt/Oracle_Database/CPU_2006_07/5225799/custom/scripts/pre -apply 5225799 ':

Return Code = 0

```
Patching component oracle.rdbms.rsfc, 10.2.0.2.0...
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libgeneric10.a" with
"lib/libgeneric10.a/qcpi4.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libcommon10.a" with
"lib/libcommon10.a/ttcbur.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libcommon10.a" with
"lib/libcommon10.a/ttcdrv.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libcommon10.a" with
"lib/libcommon10.a/ttccpi.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libcommon10.a" with
"lib/libcommon10.a/ttccdf.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libcommon10.a" with
"lib/libcommon10.a/ttccclr.o"

Patching component oracle.rdbms, 10.2.0.2.0...
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libserver10.a" with
"lib/libserver10.a/prsa.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libserver10.a" with
"lib/libserver10.a/qcctab.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libserver10.a" with
"lib/libserver10.a/cvw.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libserver10.a" with
"lib/libserver10.a/kkzf.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libserver10.a" with
"lib/libserver10.a/npixfr.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libserver10.a" with
"lib/libserver10.a/opitsk.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libserver10.a" with
"lib/libserver10.a/opicdf.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libserver10.a" with
"lib/libserver10.a/opiexe.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libserver10.a" with
"lib/libserver10.a/qxdid.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libserver10.a" with
"lib/libserver10.a/kkn.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libserver10.a" with
"lib/libserver10.a/vop.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libgeneric10.a" with
"lib/libgeneric10.a/qcpi4.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libcommon10.a" with
"lib/libcommon10.a/ttcbur.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libcommon10.a" with
"lib/libcommon10.a/ttcdrv.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libcommon10.a" with
"lib/libcommon10.a/ttccpi.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libcommon10.a" with
"lib/libcommon10.a/ttccdf.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/lib/libcommon10.a" with
"lib/libcommon10.a/ttccclr.o"
Updating archive file "/opt/oracle/product/10.1.0/db10gR2/rdbms/lib/libperfsrv10.a" with
"rdbms/lib/libperfsrv10.a/ttccdf_PERF.o"
Updating jar file "/opt/oracle/product/10.1.0/db10gR2/rdbms/jlib/CDC.jar" with
"/rdbms/jlib/CDC.jar/oracle/CDC/ChangeTable.class"
Updating jar file "/opt/oracle/product/10.1.0/db10gR2/rdbms/jlib/CDC.jar" with
"/rdbms/jlib/CDC.jar/oracle/CDC/ChangeTableTrigger.class"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/rdbms/admin/prvtcr.plb"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/rdbms/admin/prvtpepx.plb"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/rdbms/admin/prvtxrmv.plb"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/rdbms/admin/prvtmeta.plb"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/rdbms/admin/catodci.sql"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/rdbms/admin/prvtodci.plb"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/catcpu.sql"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/catcpu_rollback.sql"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/javcpu.sql"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MDPLSQL/check.sh"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MDPLSQL/modplsqlcpu.sql"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MDPLSQL/owadummy.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MDPLSQL/owa_all/30/owacomm.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MDPLSQL/owa_all/30/owacomm7.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MDPLSQL/owa_all/30/owacomm8.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MDPLSQL/owa_all/30/owacsyn.sql"
```

```
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/owadins.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/owadsyn.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/owadummy.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/owainst.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/owaload.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/owaload7.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/owaload_patch.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privcac8.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privcach.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privcook.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privcust.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privht.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privimg.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privmat.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privoolk.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privowa.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privpat.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privsec.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privtext.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/privutil.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/pubcach.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/pubcach8.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/pubcook.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/pubcust.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/pubht.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/pubimg.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/pubmat.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/puboolk.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/pubowa.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/pubpat.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/pubsec.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/pubtext.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/pubutil.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/wpgdocb.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/wpgdocb7.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/wpgdocb8.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/wpgdocs.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/wpgdocs7.sql"
```

```
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/wpgdocs8.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/wpiutl1.sql"
Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/wpiutl17.sql"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/wwvdocb.sql"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/30/wwvdocs.sql"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/90/owachars.sql"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/90/owacomm.sql"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/90/owacomm8.sql"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/90/owacomm8i.sql"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/90/owacsyn.sql"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/90/owadbgdrop.sql"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/90/privowad.plb"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/90/wpgdocs.sql"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/101/owacomm8.sql"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/101/owacsyn.sql"
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"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/101/owadbinst.sql"
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Copying file to
"/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_all/101/wwvdocs.sql"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_backup.sql"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_patch.sql"
Copying file to "/opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/MODPLSQL/owa_restore.sql"
Running make for target client_sharedlib
Running make for target itnslnr
Running make for target ilsnrctl
Running make for target client_sharedlib
Running make for target ioracle
ApplySession adding interim patch '5225799' to inventory

Verifying the update...
Inventory check OK: Patch ID 5225799 is registered in Oracle Home inventory with proper meta-
data.
Files check OK: Files from Patch ID 5225799 are present in Oracle Home.
```

```
*****
*****
**                                     **
**                                     **
** Please note that the Security Patch Installation (Patch Deinstallation) is **
** not complete until all the Post Installation (Post Deinstallation)       **
** instructions noted in the Readme accompanying this patch, have been      **
** successfully completed.                                                  **
**                                     **
*****
*****
```

```
Execution of 'sh /mnt/Oracle_Database/CPU_2006_07/5225799/custom/scripts/post -apply 5225799
':
```

Return Code = 0

The local system has been patched and can be restarted.

OPatch succeeded.

```
[oracle@racnode2 5225799]$ /opt/oracle/product/10.1.0/db10gR2/OPatch/patch apply -local
```

```
[oracle@racnode1 ~]$ srvctl start nodeapps -n racnode1
[oracle@racnode1 ~]$ srvctl start nodeapps -n racnode2
[oracle@racnode1 ~]$ cd /opt/oracle/product/10.1.0/db10gR2/cpu/CPUJul2006/
```

```
[oracle@racnode1 CPUJul2006]$ sqlplus /nolog

SQL*Plus: Release 10.2.0.2.0 - Production on Fri Jul 28 11:12:44 2006

Copyright (c) 1982, 2005, Oracle. All Rights Reserved.

SQL> connect / as sysdba
Connected to an idle instance.
SQL> STARTUP
ORACLE instance started.

Total System Global Area  369098752 bytes
Fixed Size                  1260924 bytes
Variable Size              176161412 bytes
Database Buffers           188743680 bytes
Redo Buffers                2932736 bytes
Database mounted.
Database opened.
SQL> @catcpu.sql
...

No. of Invalid Objects is :14
Please refer to README.html to for instructions on validating these objects
Logfile for the current catcpu.sql session is : APPLY_DEVHA_28Jul2006_11_13_07.log
not spooling currently

SQL> shutdown immediate;
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> startup
ORACLE instance started.

Total System Global Area  369098752 bytes
Fixed Size                  1260924 bytes
Variable Size              176161412 bytes
Database Buffers           188743680 bytes
Redo Buffers                2932736 bytes
Database mounted.
Database opened.
SQL> @?/rdbms/admin/utlrp
```

8) RMAN catalog upgrade

```
$ rman catalog username/password@alias  
RMAN> UPGRADE CATALOG;
```

8) Backup of RDBMS-Oracle-Home, CRS-Oracle-Home, Voting-Disk and OCR plus database

Known Issues:
=====

Oracle Listener Issue (Bug 3881276: workaround - change ports in ons.config, MetaLink Note **284602.1**)

Problem mit Relink von libknlpt.a auf RAC (Bug 5128575: workaround: manuelles Kopieren der Library auf zweiten RAC node und Relink) Metalink Note 365851.1

```
[root@racnode1 install]# ls -la /opt/oracle/product/10.1.0/db10gR2/bin/oracle
-rwsr-s--x 1 oracle dba 94255582 Jul 28 11:07 /opt/oracle/product/10.1.0/db10gR2/bin/oracle

[oracle@racnode2 bdump]$ ls -la /opt/oracle/product/10.1.0/db10gR2/bin/oracle
-rwsr-s--x 1 oracle dba 94254750 Jul 28 11:11 /opt/oracle/product/10.1.0/db10gR2/bin/oracle

Fri Jul 28 11:16:57 2006
Errors in file /opt/oracle/product/10.1.0/db/admin/DEVHA/udump/devha2_ora_13213.trc:
ORA-07445: exception encountered: core dump [kkxcms()+906] [SIGSEGV] [Address not mapped to
object] [0x168] [] []
Fri Jul 28 11:16:57 2006
Trace dumping is performing id=[cdmp_20060728111657]
Fri Jul 28 11:17:00 2006
Errors in file /opt/oracle/product/10.1.0/db/admin/DEVHA/udump/devha2_ora_13392.trc:
ORA-07445: exception encountered: core dump [kkxsyn()+614] [SIGSEGV] [Address not mapped to
object] [0x168] [] []
Fri Jul 28 11:17:01 2006
Trace dumping is performing id=[cdmp_20060728111701]
Fri Jul 28 11:17:07 2006
Errors in file /opt/oracle/product/10.1.0/db/admin/DEVHA/udump/devha2_ora_13606.trc:
ORA-07445: exception encountered: core dump [kkxsyn()+614] [SIGSEGV] [Address not mapped to
object] [0x168] [] []

srvctl stop database -d DEVHA
srvctl stop nodeapps -n racnode1
srvctl stop nodeapps -n racnode2

scp $ORACLE_HOME/rdbms/lib/libknlpt.a racnode2:$ORACLE_HOME/rdbms/lib/libknlpt.a
libknlpt.a

[oracle@racnode2 ~]$ cd $ORACLE_HOME/rdbms/lib
[oracle@racnode2 lib]$ make -f ins_rdbms.mk ioracle

[oracle@racnode1 ~]$ ls -la /opt/oracle/product/10.1.0/db10gR2/bin/oracle
-rwsr-s--x 1 oracle dba 94255582 Jul 28 11:07 /opt/oracle/product/10.1.0/db10gR2/bin/oracle

[oracle@racnode2 lib]$ ls -la /opt/oracle/product/10.1.0/db10gR2/bin/oracle
-rwsr-s--x 1 oracle dba 94255582 Jul 28 11:25 /opt/oracle/product/10.1.0/db10gR2/bin/oracle
```

Duration: 15 Minuten

```
[oracle@racnode1 ~]$ crs_stat -t
```

Name	Type	Target	State	Host
ora....A1.inst	application	ONLINE	ONLINE	racnode1
ora....A2.inst	application	ONLINE	ONLINE	racnode2
ora....HA2.srv	application	ONLINE	ONLINE	racnode2
ora....ARAL.cs	application	ONLINE	ONLINE	racnode2
ora....HA1.srv	application	ONLINE	ONLINE	racnode1
ora...._BKP.cs	application	ONLINE	ONLINE	racnode1
ora....HA1.srv	application	ONLINE	ONLINE	racnode1
ora....JOBS.cs	application	ONLINE	ONLINE	racnode1
ora....HA2.srv	application	ONLINE	ONLINE	racnode2
ora...._POS.cs	application	ONLINE	ONLINE	racnode2
ora....HA1.srv	application	ONLINE	ONLINE	racnode1
ora...._BKP.cs	application	ONLINE	ONLINE	racnode1
ora....HA1.srv	application	ONLINE	ONLINE	racnode1
ora...._WEB.cs	application	ONLINE	ONLINE	racnode1

ora....HA2.srv	application	ONLINE	ONLINE	racnode2
ora...._BKP.cs	application	ONLINE	ONLINE	racnode2
ora.DEVHA.db	application	ONLINE	ONLINE	racnode1
ora....04.lsnr	application	ONLINE	ONLINE	racnode1
ora....a04.gsd	application	ONLINE	ONLINE	racnode1
ora....a04.ons	application	ONLINE	ONLINE	racnode1
ora....a04.vip	application	ONLINE	ONLINE	racnode1
ora....05.lsnr	application	ONLINE	ONLINE	racnode2
ora....a05.gsd	application	ONLINE	ONLINE	racnode2
ora....a05.ons	application	ONLINE	ONLINE	racnode2
ora....a05.vip	application	ONLINE	ONLINE	racnode2