# INTRODUCTION

Configure the Oracle Clusterware and RAC 10g software on Sun SPARC M4000.

# Database information

## Database – RAC

| Serial No | ITEMS | Values |
| --- | --- | --- |
| 1 | Oracle SID  Service\_name |  |
| 2 | Oracle Home Directory | /u01/app/oracle//10.2.0/db |
| 3 | CRS Home Directory | /u01/app/oracle//10.2.0/crs |
| 4 | Location of pfile | Storages disk |
| 5 | Location of alert log | Local disk |
| 6 | Virtual IP Address and netmask of this instance |  |
| 7 | Oracle RDBMS Software installed (Version, Enterprise/Standard) | 10.2.0.1 |
| 8 | Oracle database files are managed by | ASM |
| 9 | Database 10g Patch version | 10.2.0.4 |
| 10 | Oracle base dir | /u01/app/oracle |
| 11 | Check Character set | **UTF8** |
| 12 | Process | **2048** |
| 13 | Memory | **65% total Physical memory** |

## Listener Information

| Serial No | ITEMS | Values |
| --- | --- | --- |
| 1 | LISTENER name listed in the tnsnames.ora file. E.g. listener | LISTENER |
| 2 | Home | Local Disk |
| 3 | TnsAdmin | Local Disk |
| 4 | Virtual IP Address and netmask of this listener |  |
| 5 | Listener port number. E.g. 1521 | 1521 (default) |

# INSTALLING ORACLE CLUSTERWARE

## Verify Oracle Clusterware Requirements with CVU

Using the following command to verify and check system requirements before starting to install Oracle Clusterware.

$/*mountpoint*/runcluvfy.sh stage -pre crsinst -n *node\_list*

The Cluster Verification Utility Oracle Clusterware preinstallation stage check verifies the following:

* Node Reach ability:
* User Equivalence:
* Node Connectivity:
* Administrative Privileges:
* Shared Storage Accessibility:
* System requirements:
* Kernel Packages:
* Node Applications:

## Preparing to install Oracle CRS with OUI

* Shutdown all running Oracle Processes
* Determine the Oracle Inventory Location (oraInventory)

|  |  |
| --- | --- |
| Oracle Inventory Location | /oracle |

* Obtain root account access
* Determine cluster name, public node names, private node names, and virtual node names for each node in the cluster.

## Confirming Oracle Clusterware Funtion

After installation, log in as root, and use the following command syntax to confirm that your Oracle Clusterware installation is installed and running correctly

#CRS\_HOME/bin/crs\_stat –t

## Oracle Clusterware Postinstallation Procedures

### Required Postinstallation Tasks

1. Backup the voting disk after installation

***Using cp command to backup the Voting disk***

Perform this task after you complete any installation, node addition, and node deletions.

1. Download and Install Patch updates

List of Patches to apply:

* Patchset 3 (10.2.0.4)

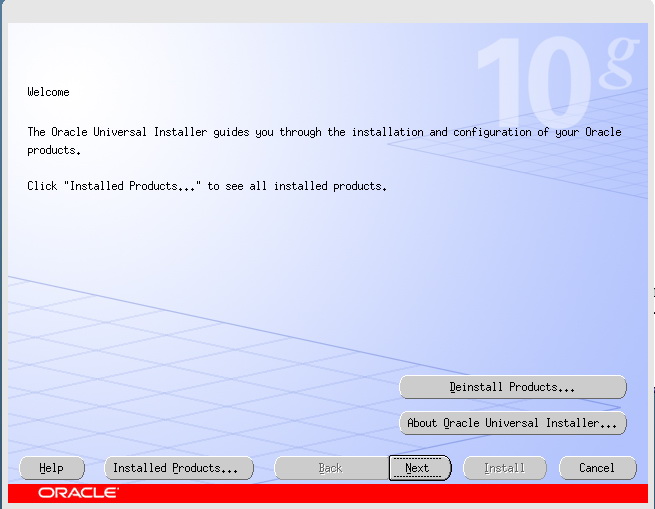
### Recommended Postinstallation Tasks

Oracle recommends that you backup root.sh script after you complete an installation.

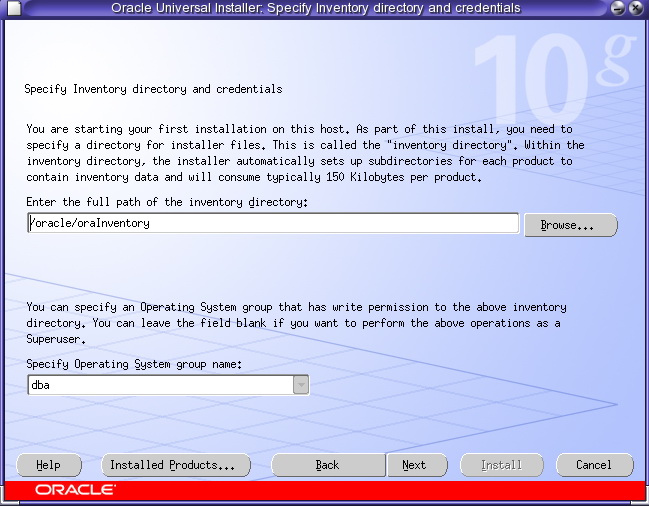
# Installation screen shot

## CRS Installation screen shot

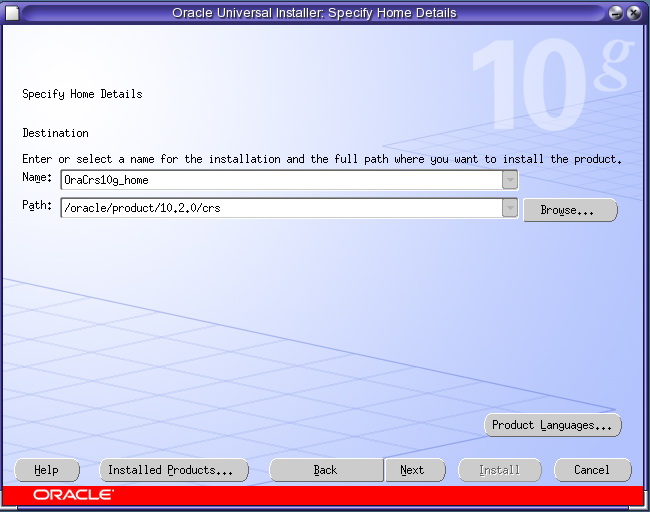
* Begin Installation:



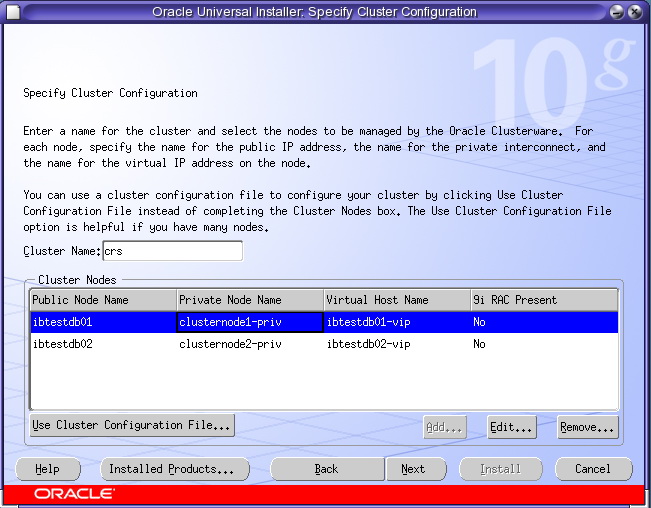
* Specify Inventory directory and credentials:



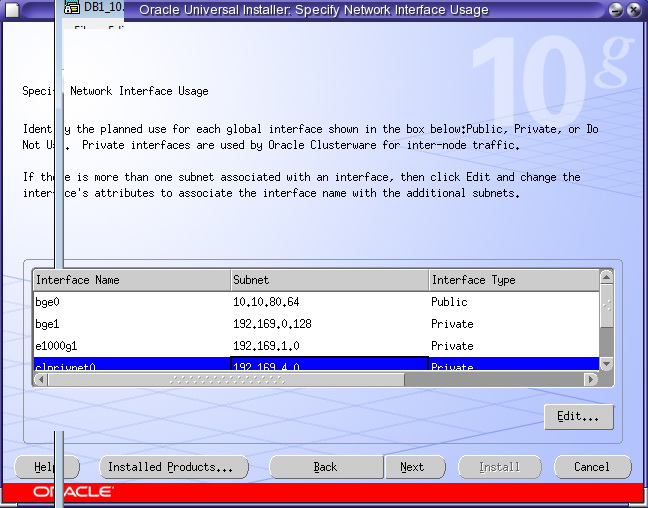
* Specify Home Details:



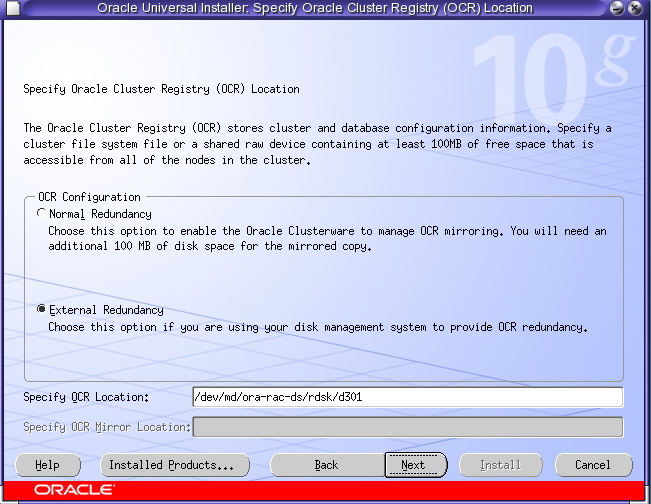
* Specify Cluster Configuration:



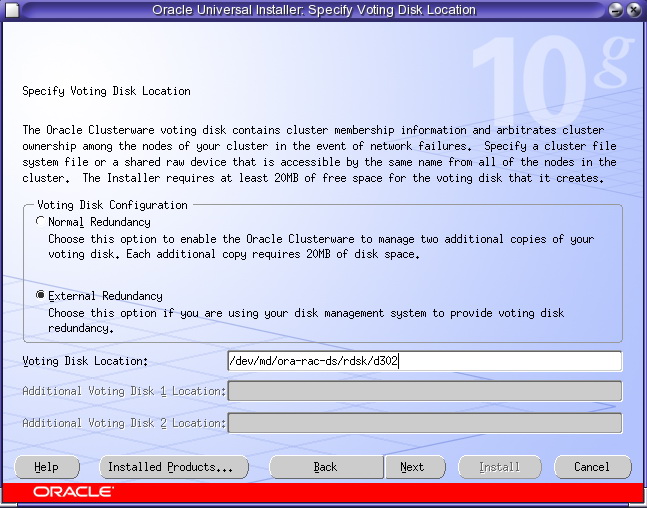
* Specify Network Interface Usage:



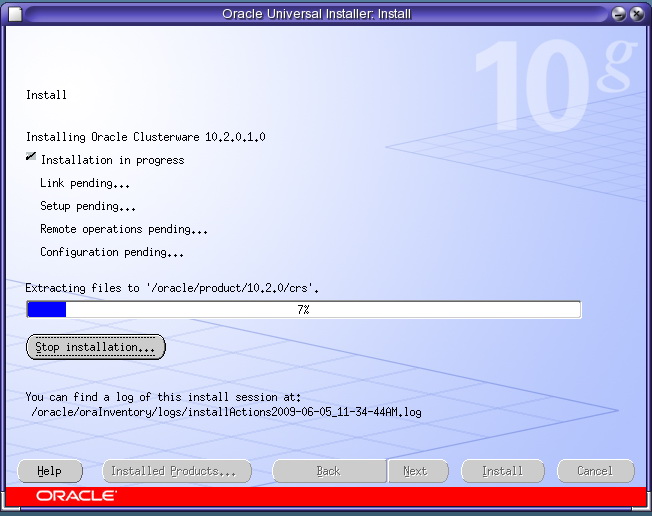
* Specify Oracle Cluster Registry (OCR) Location:



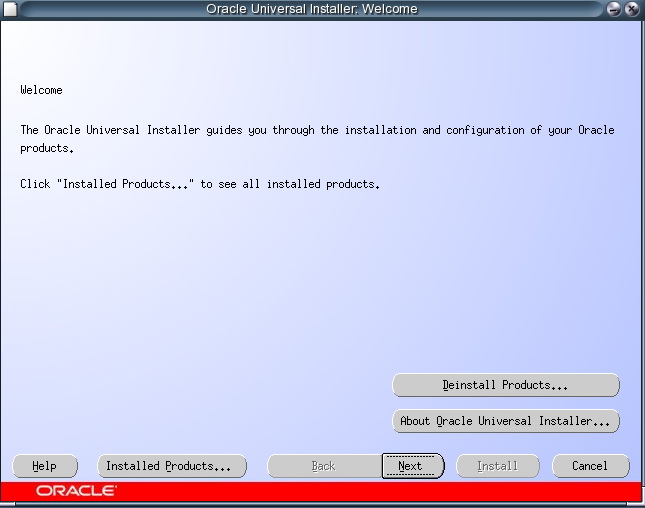
* Specify Voting Disk Location:

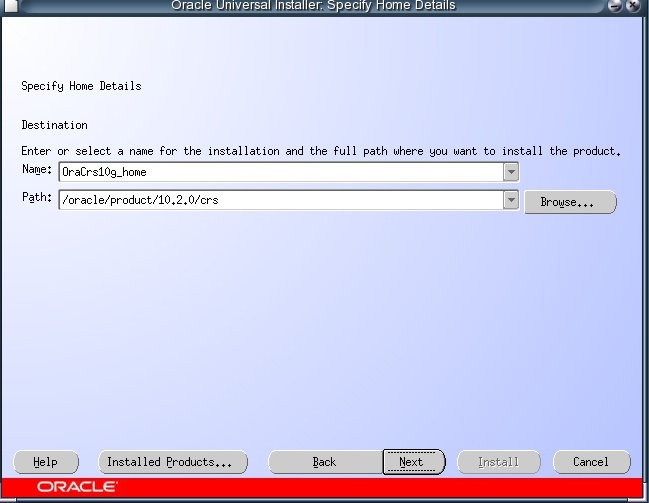


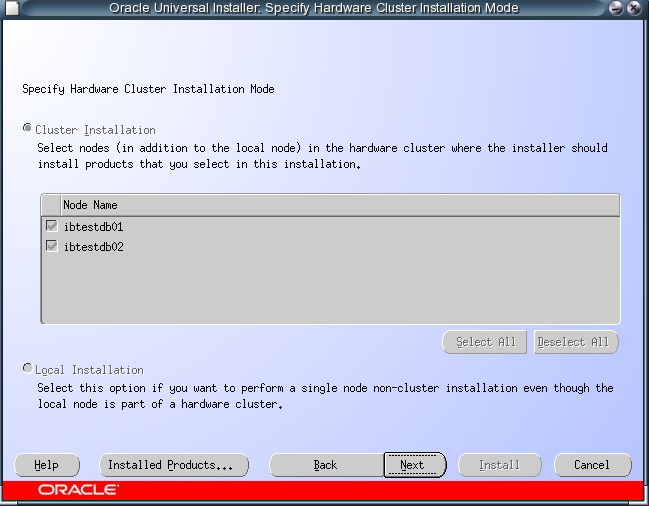
* Installation progress:

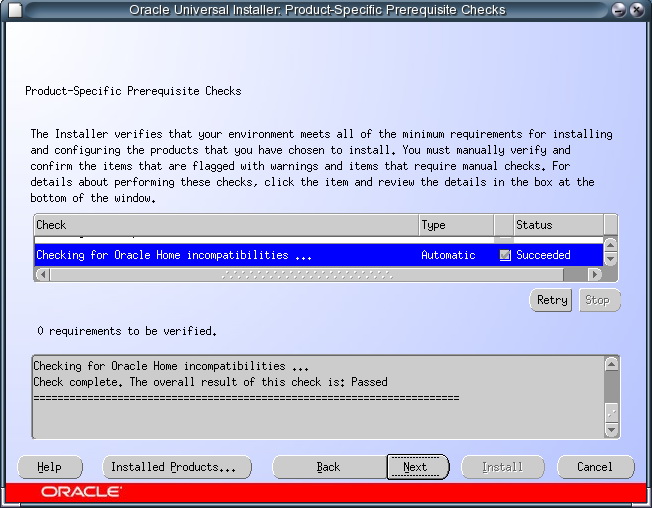


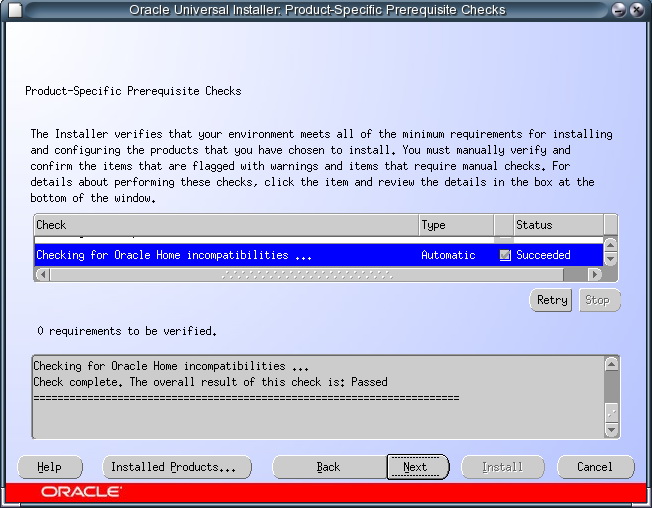
* Upgrade CRS:

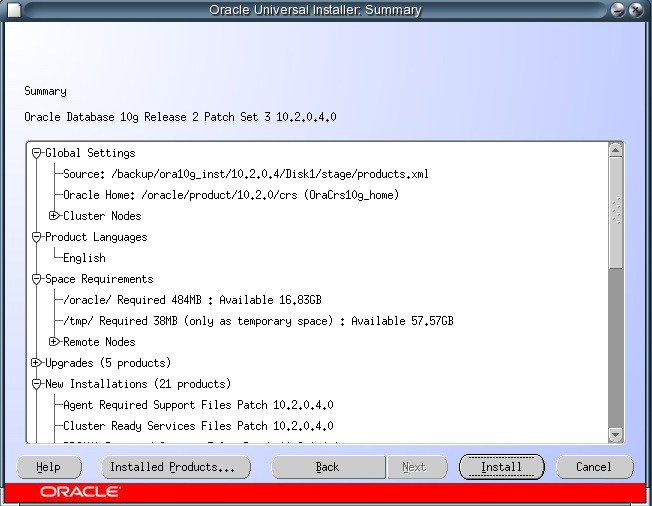


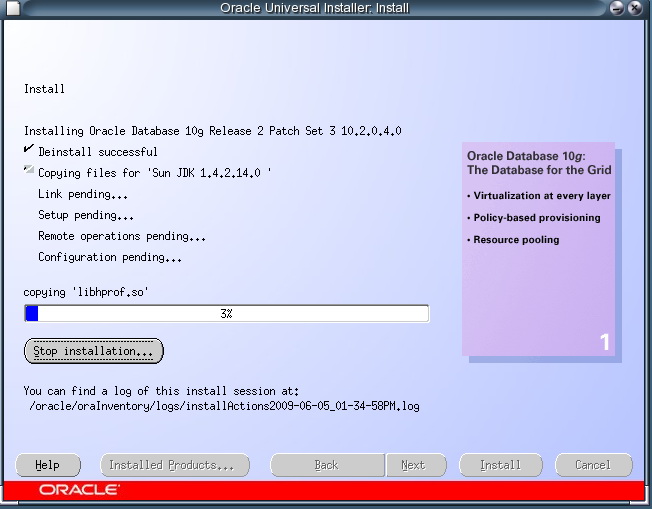


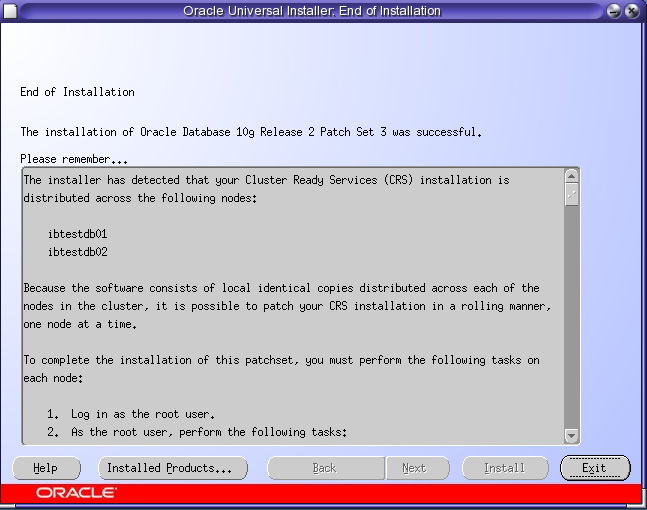








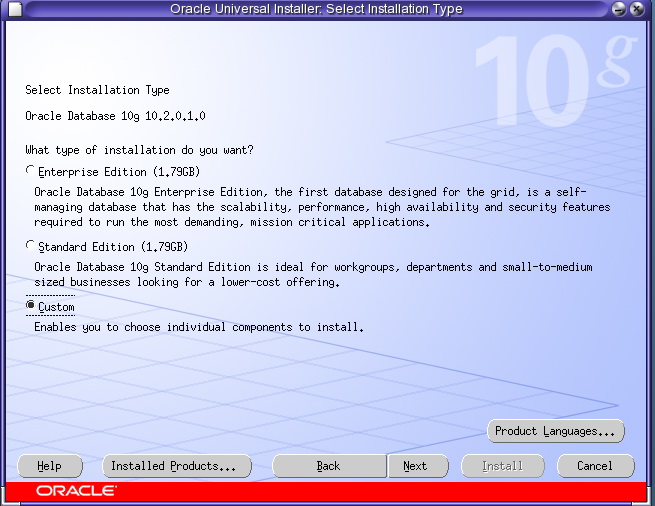




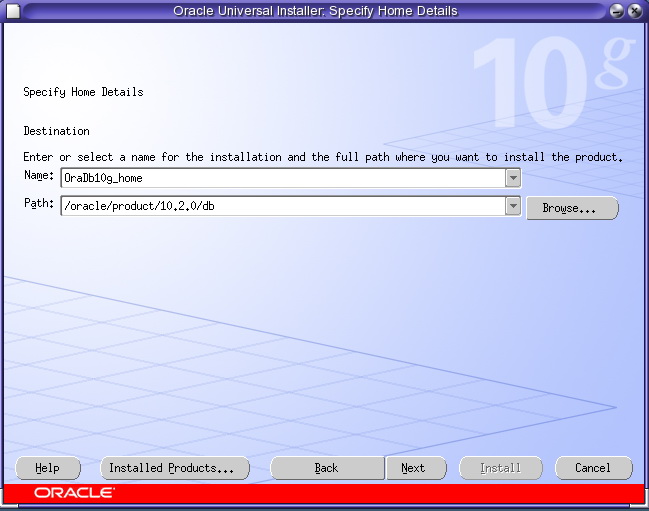
## Oracle Software installation screen shot

### Install Database Software:

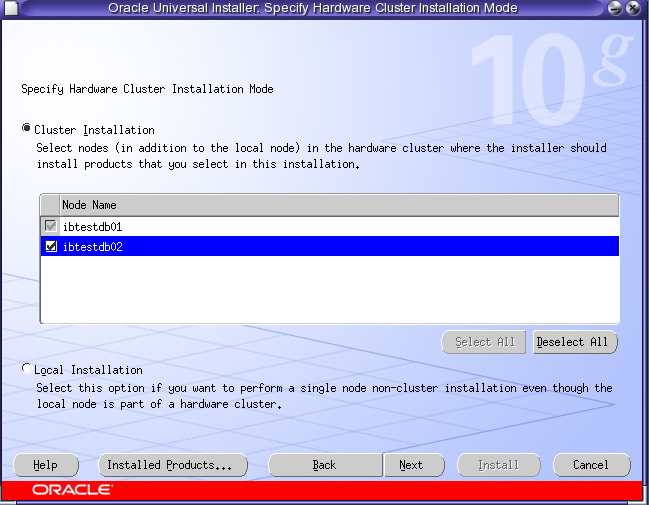
* Select Installation Type:



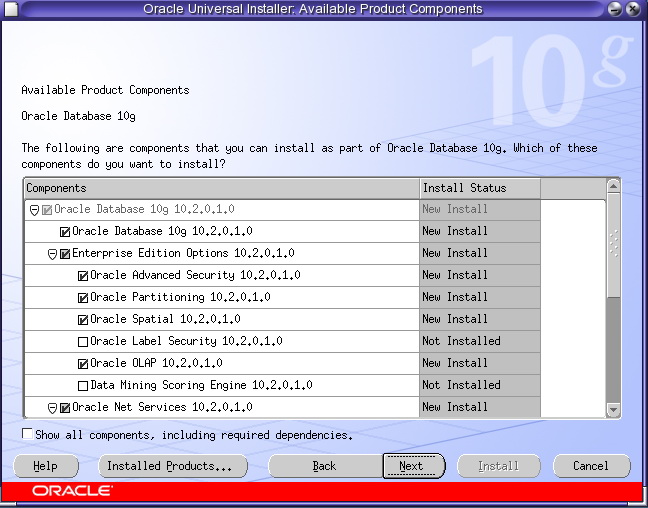
* Specify Home Details



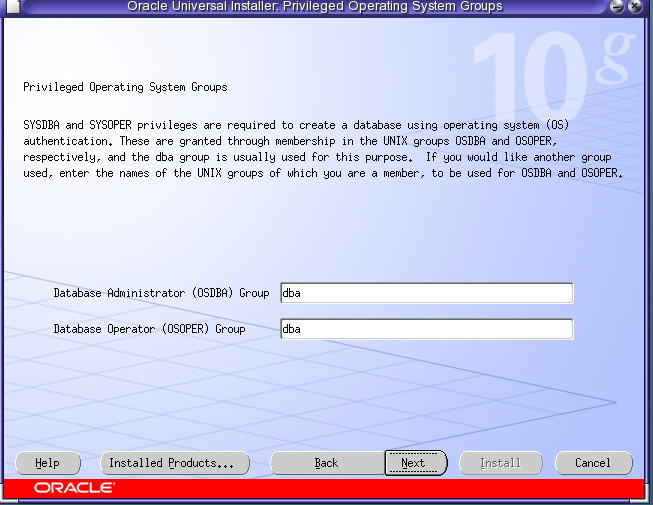
* Specify Hardware Cluster Installation Mode:

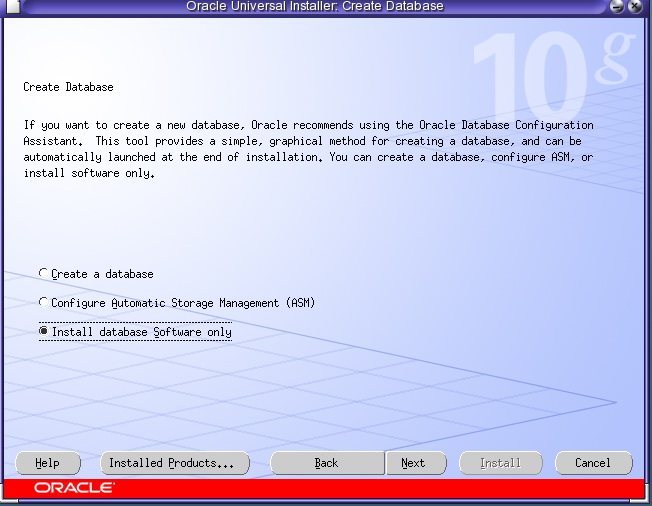


* Product – Specific Prerequisite Checks

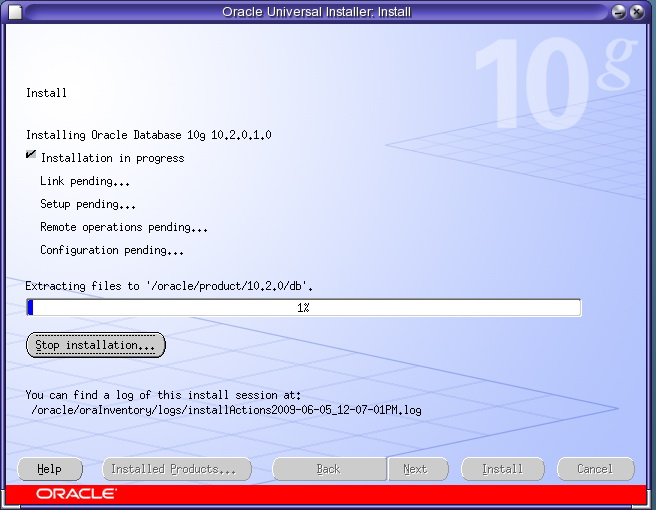


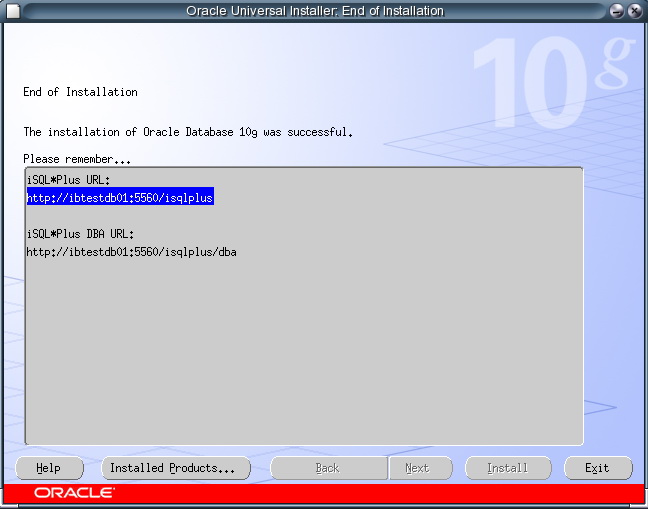
* Select Configuration Options:





* Install progress



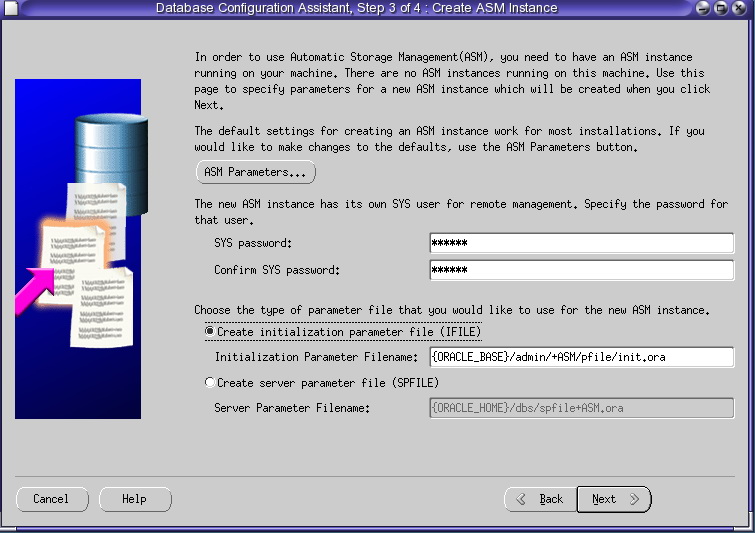


### Create Database

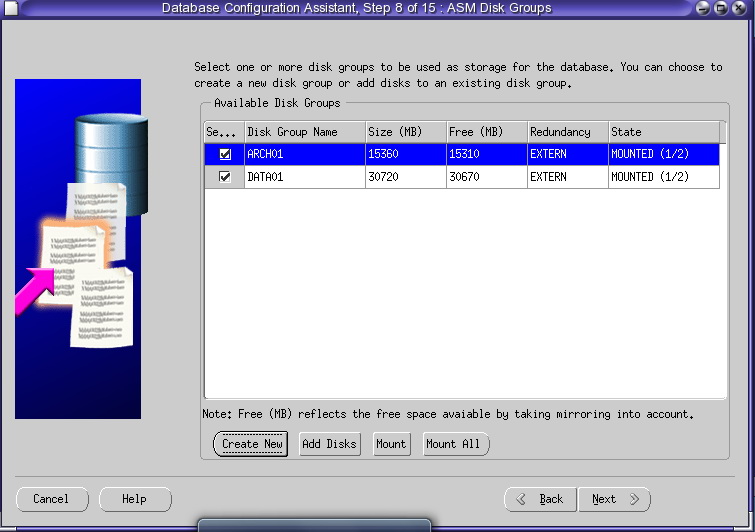
* Database Configuration Assistant : Node Selections



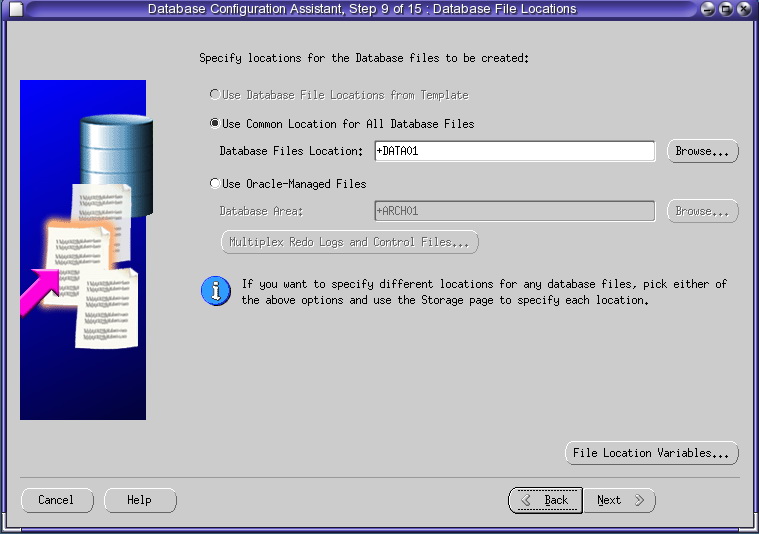
* Create ASM Instance



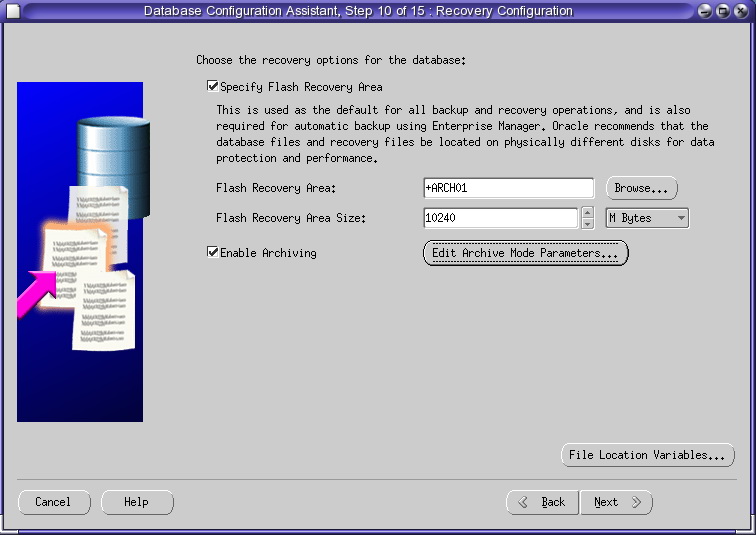
* ASM Disk Groups:



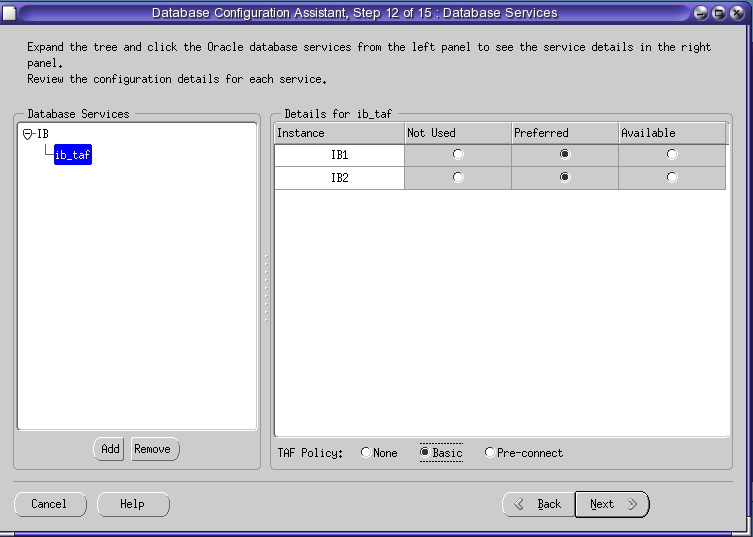
* Specify location for database file:



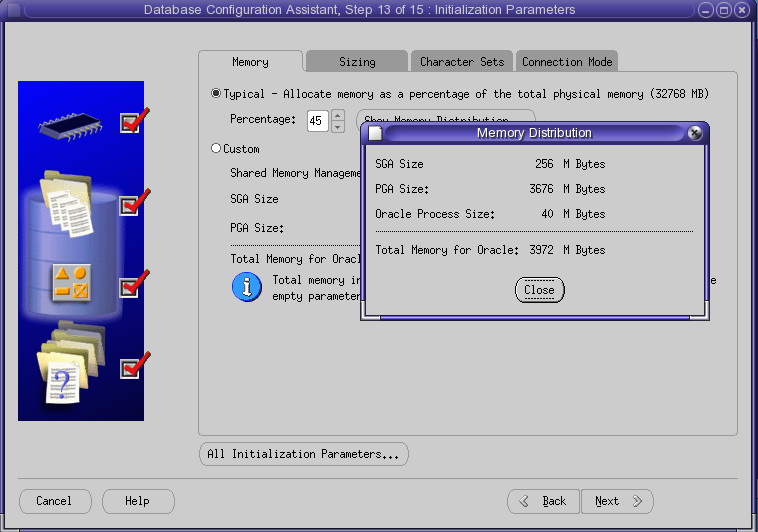
* Specify location for Recovery Area



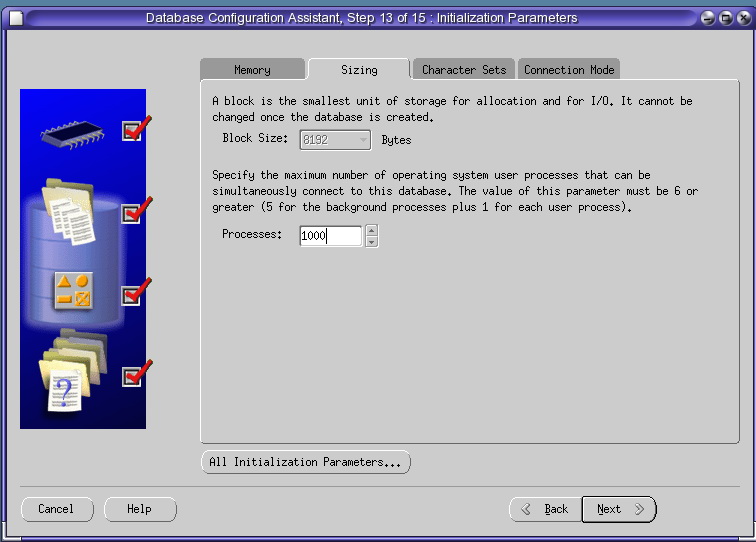
* Select Database Service



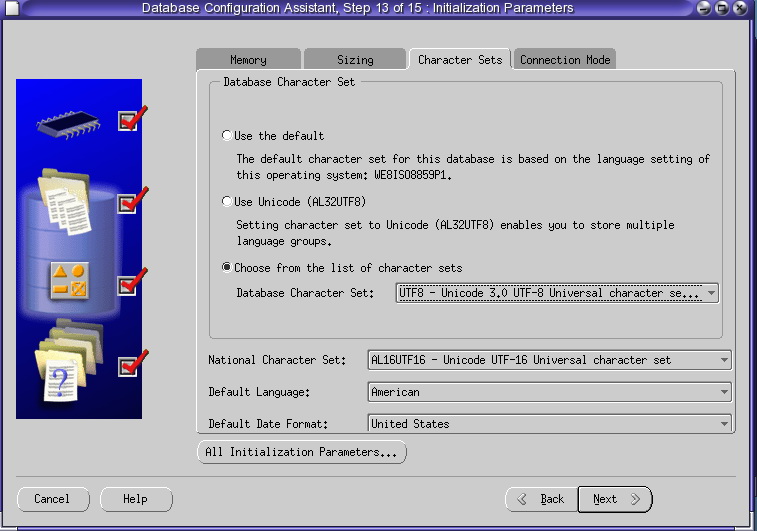
* Set Memory for Oracle Instance



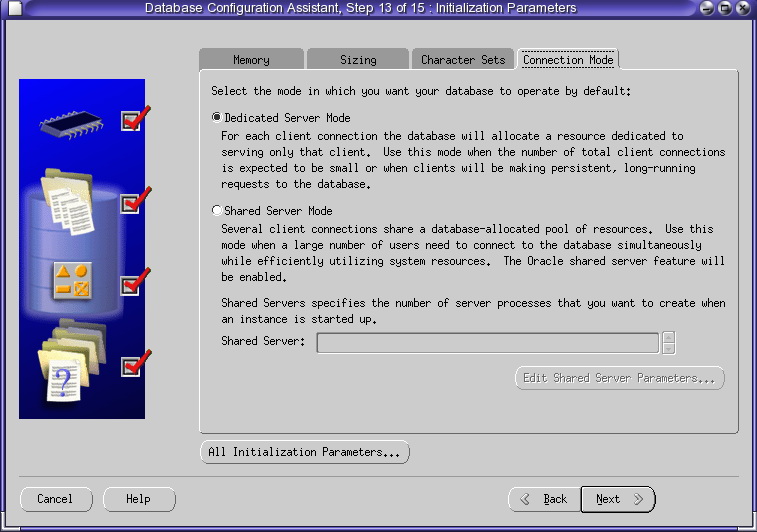
* Set sizing for Database



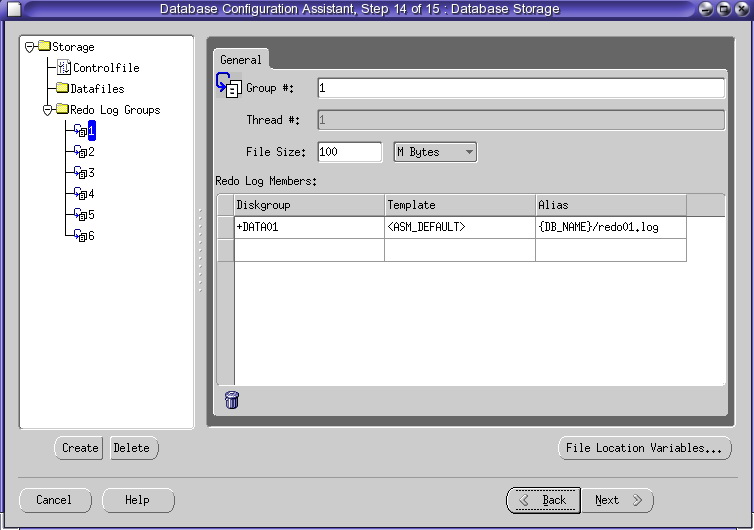
* Select character set for Database

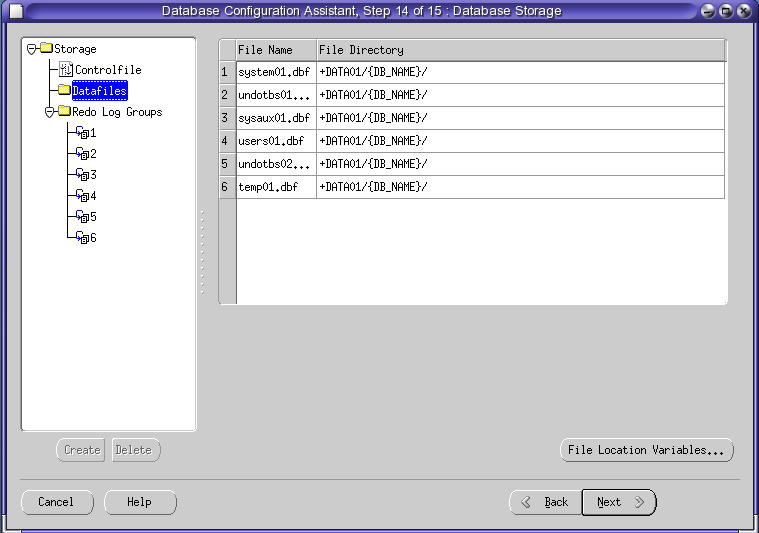


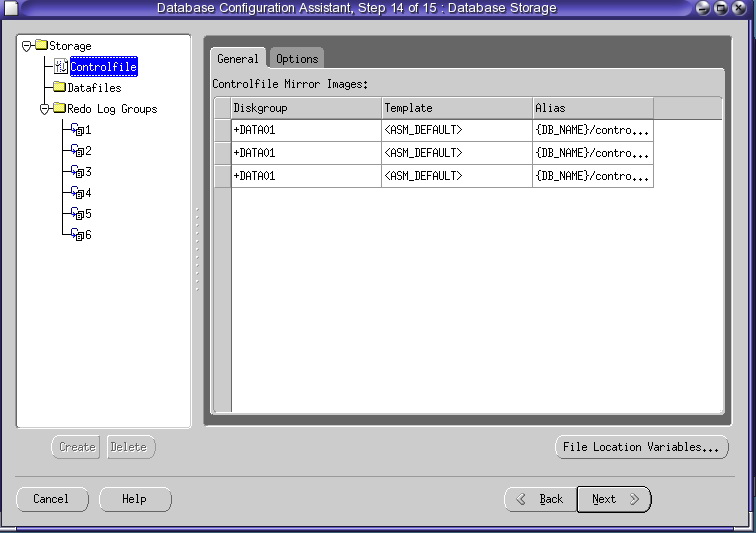
* Select Connection mode



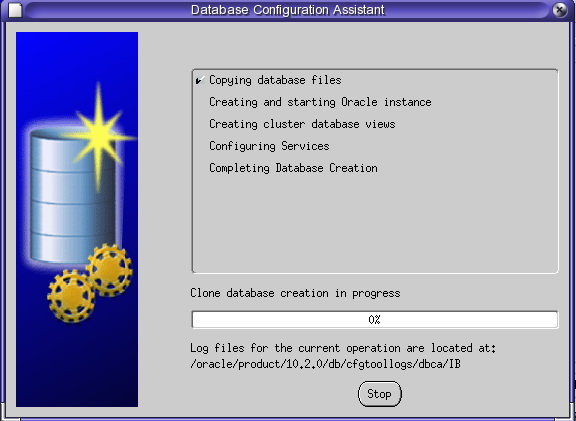
* Set Database storage

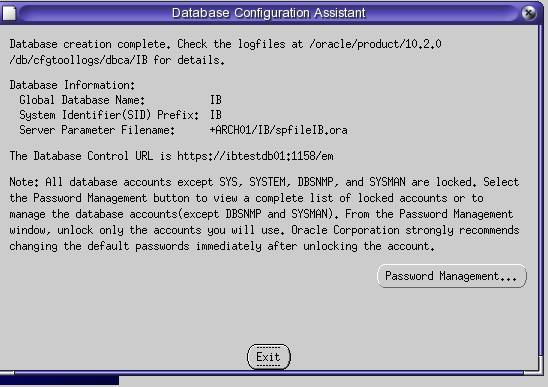




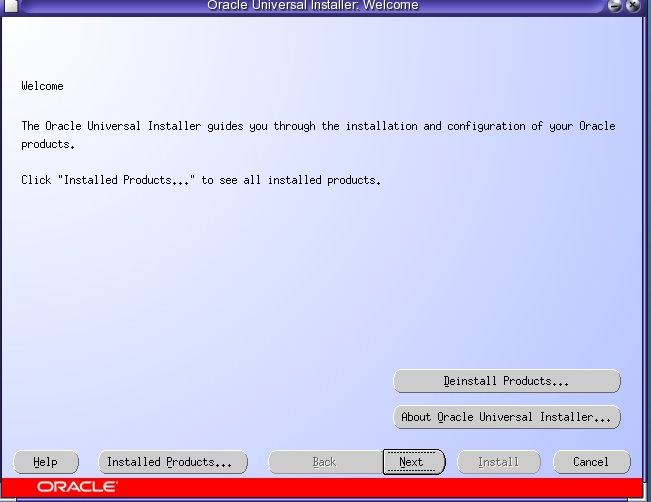


* Creating database

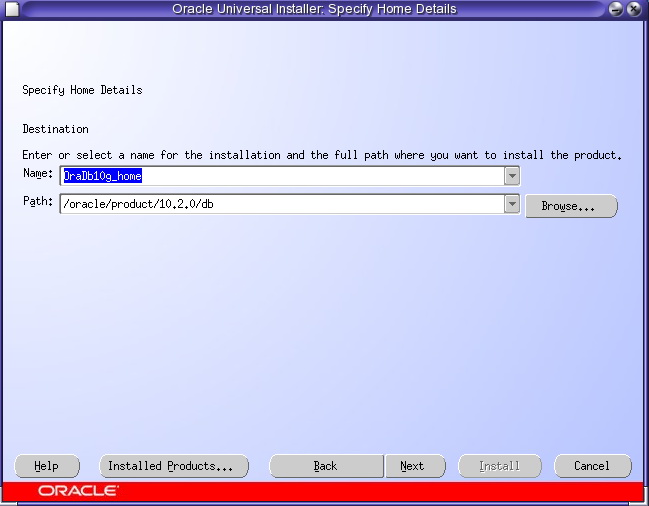


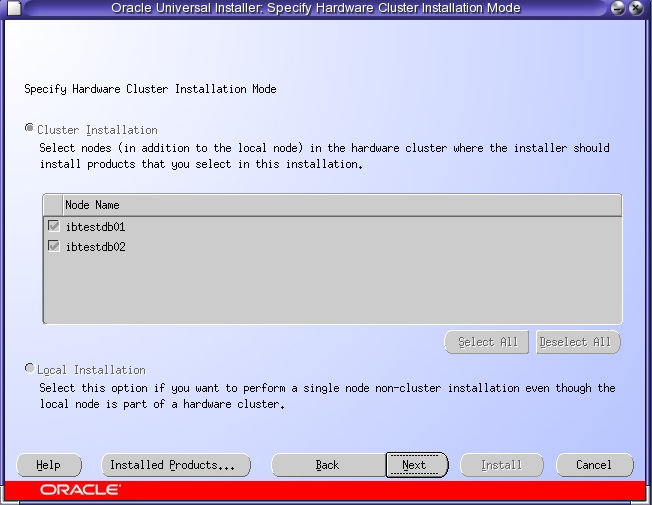


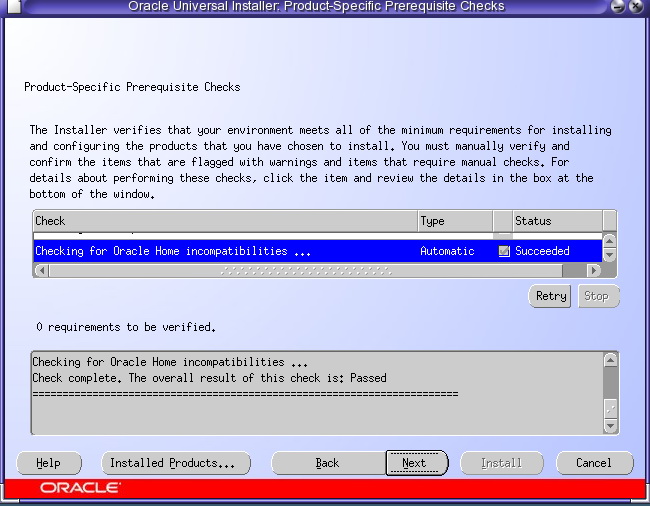
* Upgrade database

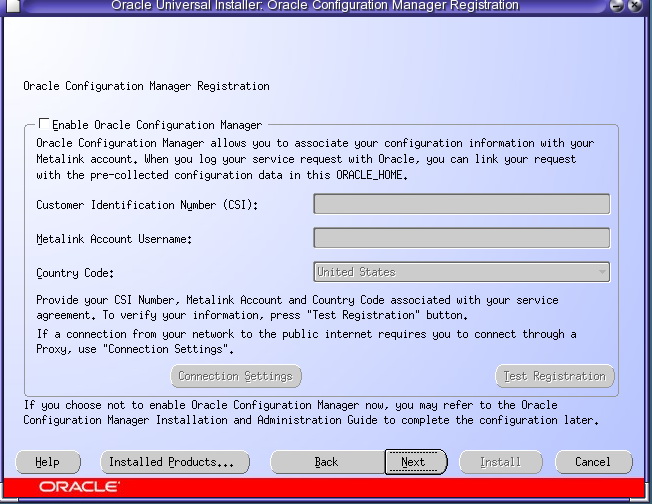


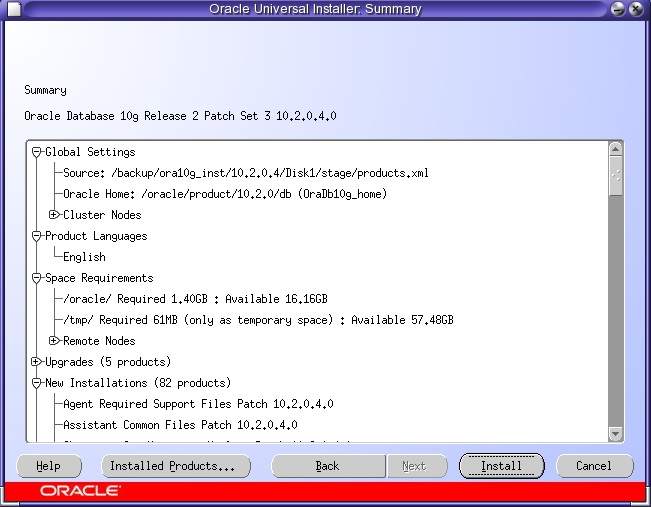
* Specify ORACLE\_HOME

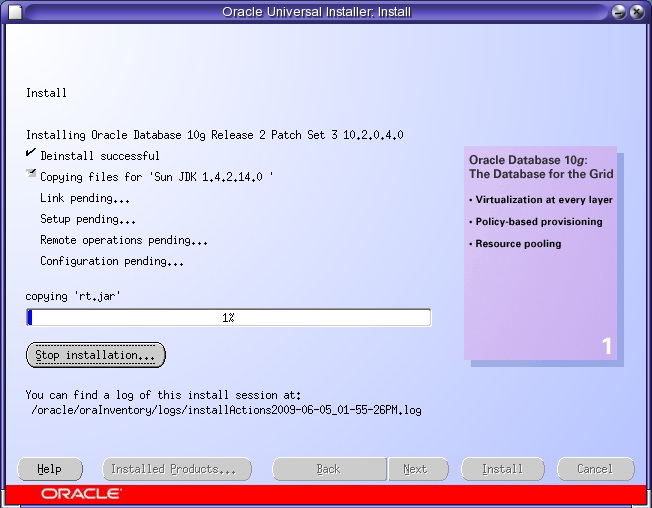


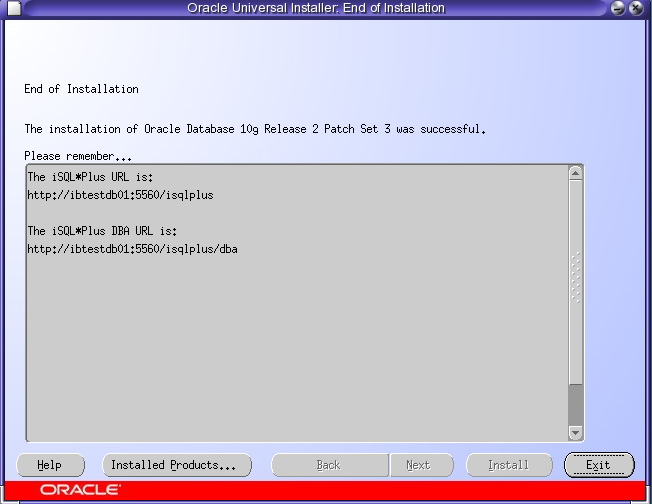












## Vận hành Oracle RAC

### Kiểm tra trạng thái của Oracle RAC bằng lệnh sau

#crs\_stat –t

Nếu tất cả các service là ONLINE thì hệ thống hoạt động bình thường.

## Vận hành Oracle RAC

### Kiểm tra hệ thống

Kiểm tra trạng thái của crs

$CRS\_HOME/bin/crsctl check crs

Kiểm tra Votedisk

$CRS\_HOME/bin/crsctl query css votedisk

Kiểm tra OCR Disk

$CRS\_HOME/bin/ocrcheck

Kiểm tra service

#crs\_stat –t

### Start/stop Oracle RAC

### Start services

Login as root account, start crs (all components)

$/CRS\_HOME/bin/crsctl start crs

Login as oracle account, start services

srvctl start nodeapps -n node\_name01

srvctl start nodeapps -n node\_name02

srvctl start asm -n node\_name01

srvctl start asm -n node\_name02

srvctl start database -d db\_name

srvctl start instance -d db\_name -i instance\_name01

srvctl start instance -d db\_name -i instance\_name02

srvctl start servcie -d db\_name

### Stop services

Login as root account, stop crs (all components)

$/CRS\_HOME/bin/crsctl stop crs

Login as oracle account, stop services

srvctl stop servcie -d db\_name

srvctl stop instacne –d db\_name –i instance\_name01

srvctl stop instacne –d db\_name –i instance\_name02

srvctl stop database -d db\_name [–o immediate]

srvctl stop asm -n node\_name01

srvctl stop asm -n node\_name02

srvctl stop nodeapps -n node\_name01

srvctl stop nodeapps -n node\_name02