

Oracle 10g R2 (10.2.0.1)
on
SUSE LINUX Enterprise Server 9

(How to Install)

Arun Singh
Novell Inc.
arun.singh@novell.com
<http://www.novell.com/oracle>

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Introduction

Oracle 10g R2 is latest release and at the time of document creation is only supported on x86. Novell SUSE LINUX Enterprise Server 9 (SLES9) certification is in progress and will be updated on Metalink (<http://metalink.oracle.com/>). This document will help you to install Oracle 10g R2 on SLES9. If you encounter any problem, please post your question to suse-oracle@suse.com.

Note: Same instruction will work for SUSE LINUX Professional 9.3 but not supported by Novell/Oracle in production environment.

Required Software and Reference Documents

Novell

- SUSE LINUX Enterprise Server 9 and Service Pack 2. You can download Eval copy from <http://www.novell.com/products/linuxenterpriseserver/eval.html>
- SUSE Linux Enterprise Server 9 Documentation <http://www.novell.com/documentation/sles9/index.html>

Oracle

- Oracle Database 10g Release 2 (10.2.0.1) Enterprise/Standard Edition for Linux x86. File name: 10201_database_linux32.zip (<http://www.oracle.com/technology/software/products/database/oracle10g/htdocs/10201linuxsoft.html>).
- Oracle Database 10g Release 2 Documentation <http://www.oracle.com/technology/documentation/database10gr2.html>

Hardware Requirements

The system must meet the following minimum hardware requirements:

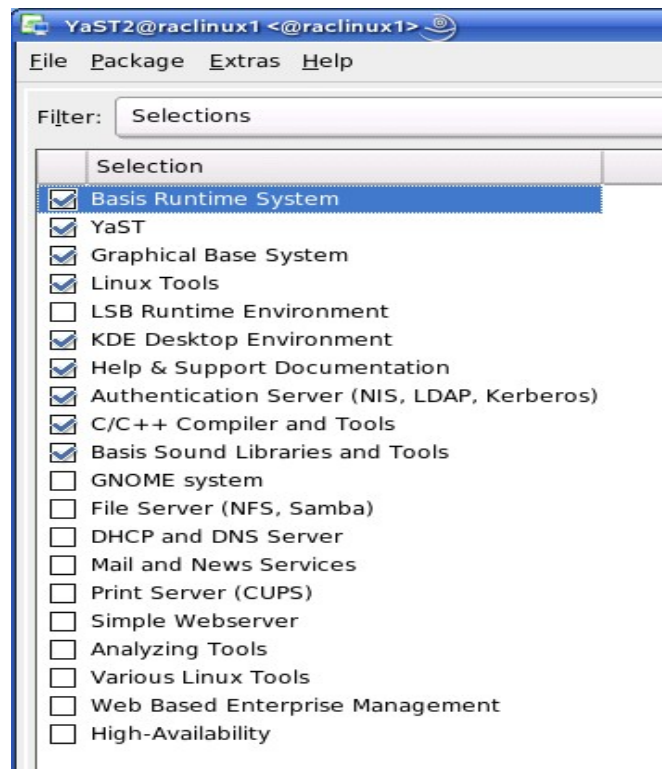
Requirement	Minimum Value
RAM	1024 MB
Swap space	Approx. twice the size of RAM
Disk space in /tmp	400 MB
Disk space for software files	3.5 GB
Disk space for database files	1.2 GB

Installation Steps

1. Install SUSE LINUX Operating System

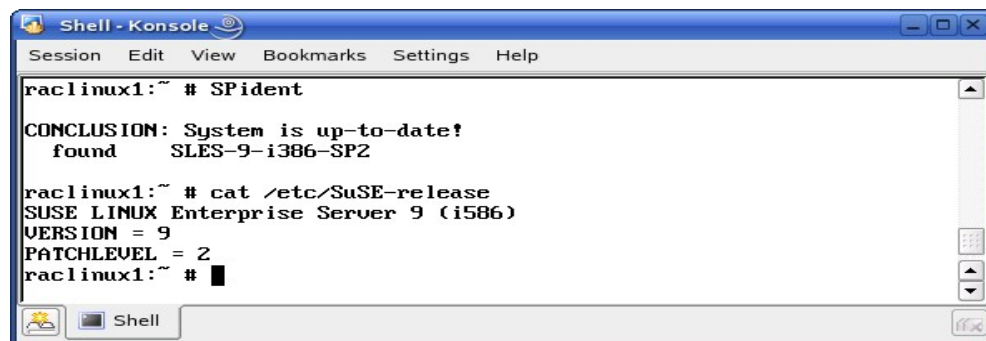
Follow the Installation instructions provided in the SLES9 install manual. SLES9 with default packages along with “C/C++ Compiler and Tools” is sufficient for Oracle 10g R2 (10.2.0.1) install.

Check whether C/C++ compiler is installed. “gcc --version” will show “gcc (GCC) 3.3.3 (SUSE LINUX)”. If gcc is not installed, then use YaST setup tool to install “C/C++ Compiler and Tools”.



2. Install SLES9 Service Pack 2

Please install SLES9 SP2, as it contains latest patches and updated orarun. Verify SLES9 SP2 is installed by SPident or 'cat /etc/SuSE-release'.



3. Oracle Install prerequisites

SUSE provides orarun packages to automate most of the Oracle pre-install task. Refer to Oracle installation document for complete list of prerequisites.

orarun :

1. Install orarun package from SLES9 SP2 CD2. You can use YaST setup tool or manual installation instruction to install orarun packages.

```
rpm -i /media/cdrom/suse/i586/orarun-1.8-109.15.i586.rpm
```

Note: For your convenience recent copy of orarun is also available at <http://ftp.novell.com/partners/oracle/sles-9/>

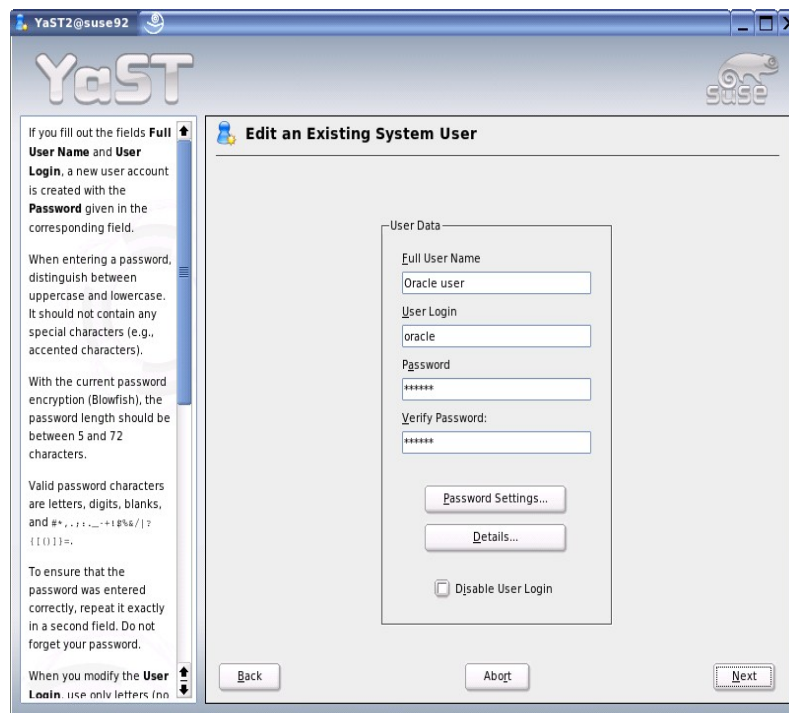
2. The account for oracle user is disabled. Enable it, by changing the shell for the "oracle" user from "/bin/false" to "/bin/bash", either by using YaST setup tool or by editing the "/etc/passwd" file.

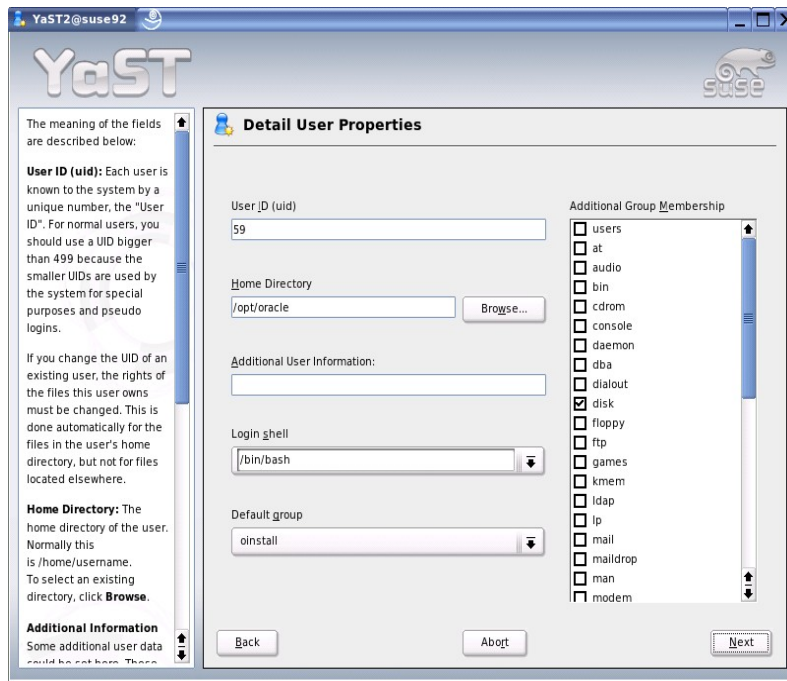
Also, set a new password for user "oracle" i.e. "/usr/bin/passwd oracle".

You can use SUSE setup tool YaST to accomplish above task.

/sbin/yast2 -> "security and Users" -> "Edit and create groups"
(Select users tab and set "System Users" filter to see oracle user.)

Following are the screen shots of "oracle" user properties:





2. Change Oracle home directory by editing ORACLE_HOME variable in “/etc/profile.d/oracle.sh” file.
`ORACLE_HOME=$ORACLE_BASE/product/10gR2`
3. Default ORACLE_SID set by orarun install is “mydb”. Change it to your preferred name in “/etc/profile.d/oracle.sh” file.
4. Run “/usr/sbin/rcoracle start “ to set kernel parameters (Ignore any errors).
5. Exit from current session and login as new “**oracle**” user.

4. Oracle 10g R2 Installation

1. Get Oracle 10g R2 (10.2.0.1) Software from oracle web (<http://www.oracle.com/technology/software/products/database/oracle10g/htdocs/10201linuxsoft.html>) and extract files:

```
#unzip 10201_database_linux32.zip
```

2. Make sure you are logged in as “**oracle**” user.
3. Run Oracle Universal installer : `./runInstaller`
 If you are installing from CD mounted as /media/cdrom then “`cd /tmp && /media/cdrom/runInstaller`” will be helpful.

Installation will walk you through with self explanatory instructions. Here are screen-shots from simple Oracle 10g Installation:

Oracle Database 10g Installation - Installation Method <@sles9-32>

Select Installation Method

Basic Installation
Perform full Oracle Database 10g installation with standard configuration options requiring minimal input. This option uses file system for storage, and a single password for all database accounts.

Oracle Home Location:

Installation Type:

UNIX DBA Group:

Create Starter Database (additional 720MB)

Global Database Name:

Database Password: Confirm Password:

This password is used for the SYS, SYSTEM, SYSMAN, and DBSNMP accounts.

Advanced Installation
Allows advanced selections such as different passwords for the SYS, SYSTEM, SYSMAN, and DBSNMP accounts, database character set, product languages, automated backups, custom installation, and alternative storage options such as Automatic Storage Management.

ORACLE

Oracle Universal Installer: Specify Inventory directory and credentials <@sles9-32>

Specify Inventory directory and credentials

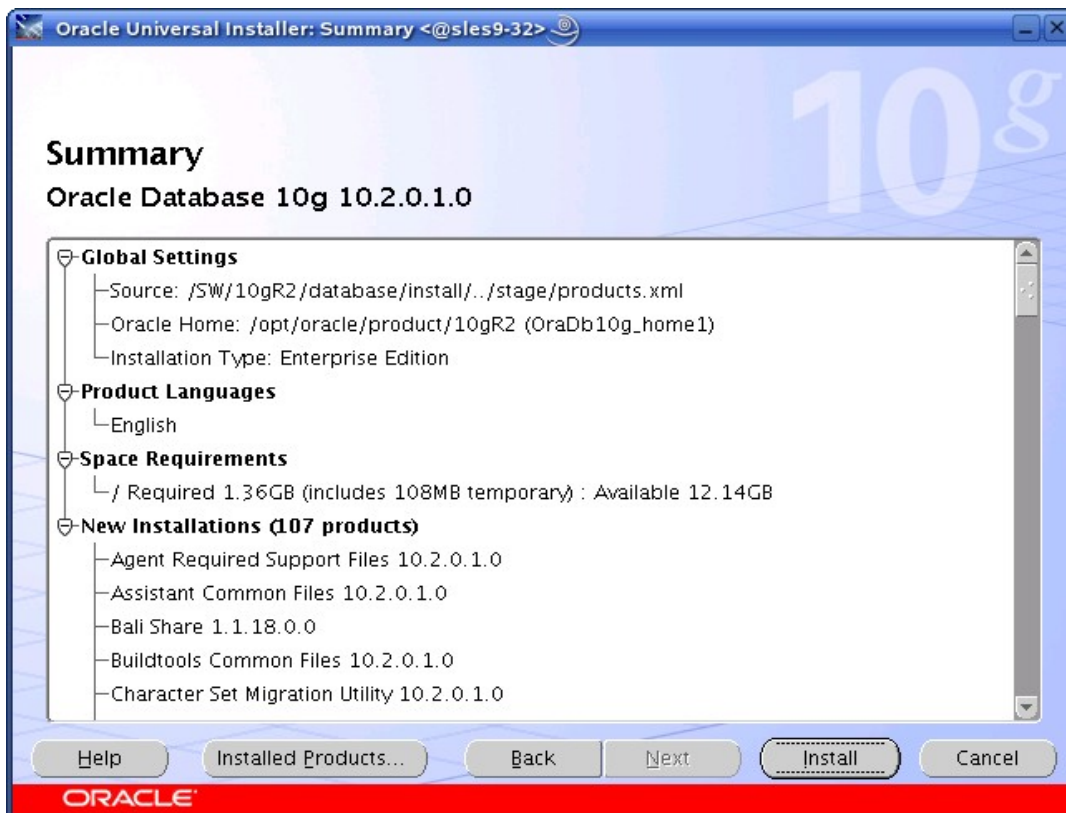
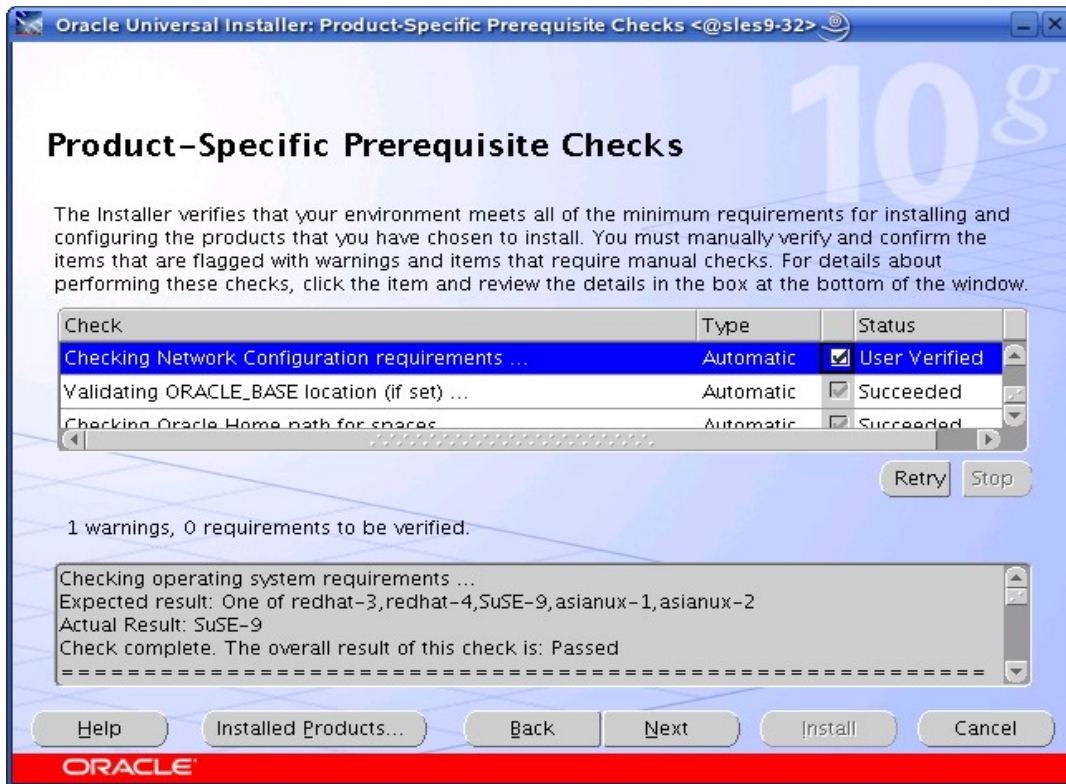
You are starting your first installation on this host. As part of this install, you need to specify a directory for installer files. This is called the "inventory directory". Within the inventory directory, the installer automatically sets up subdirectories for each product to contain inventory data and will consume typically 150 Kilobytes per product.

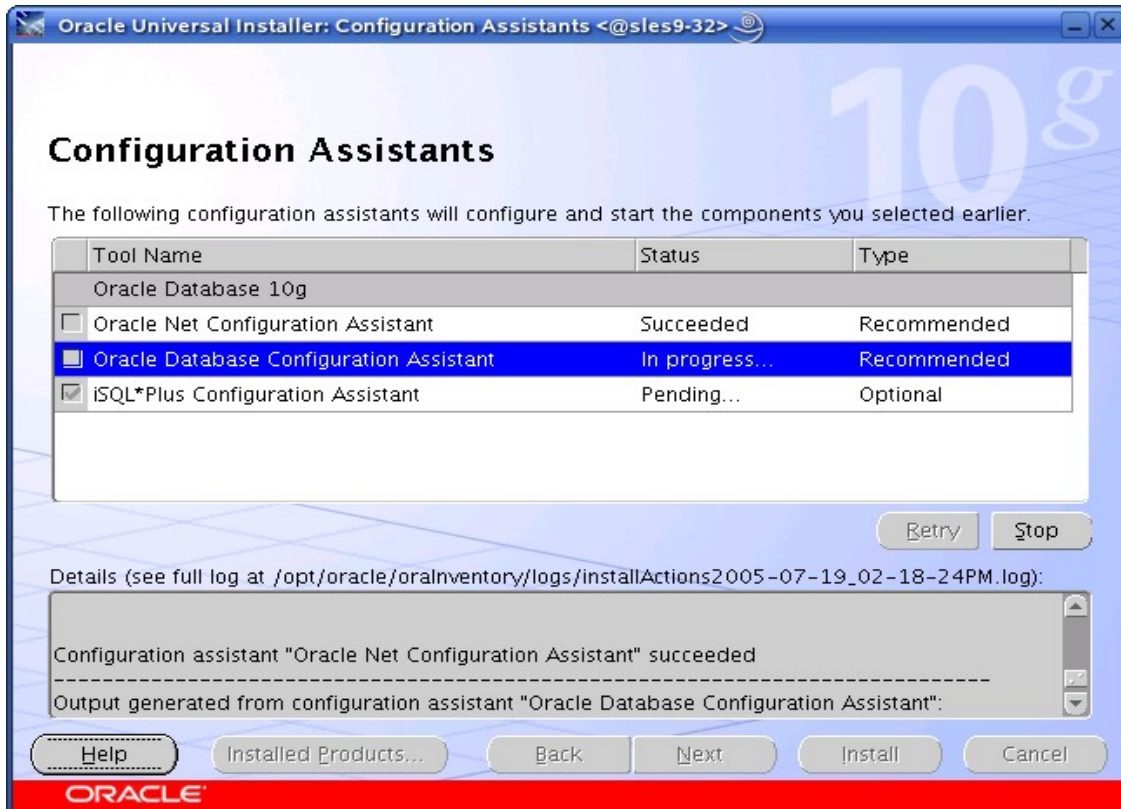
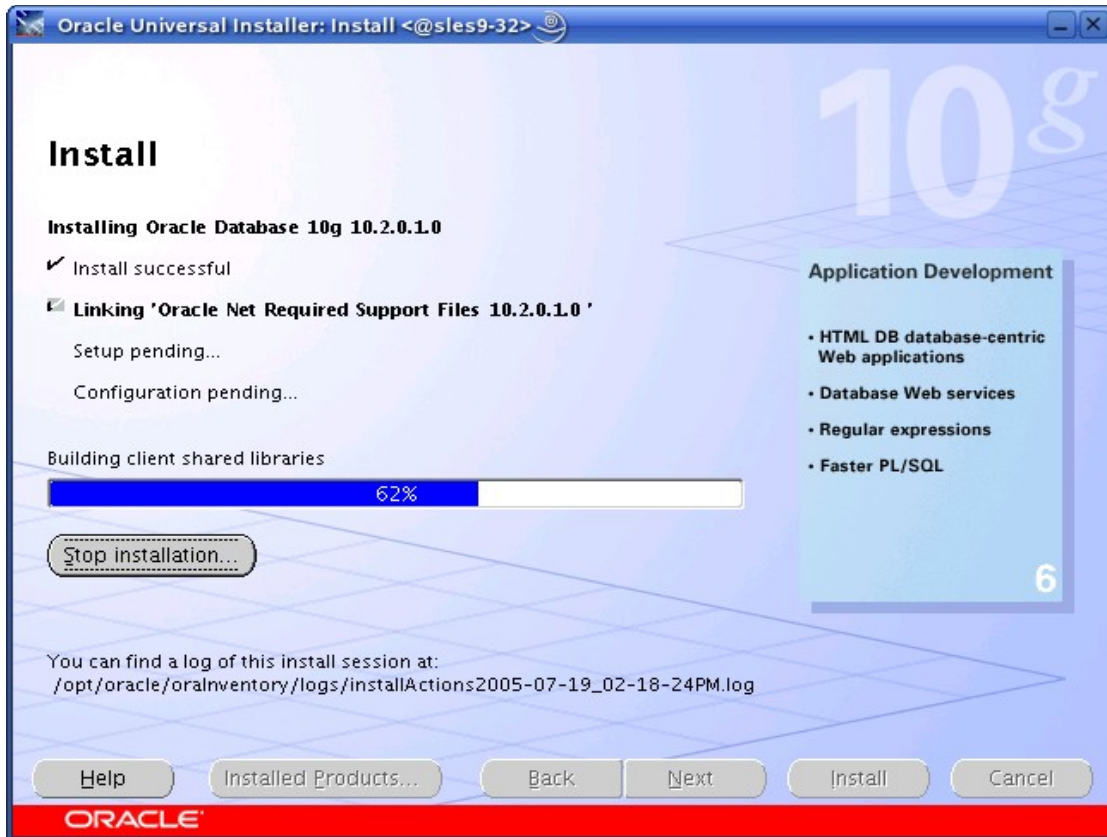
Enter the full path of the inventory directory:

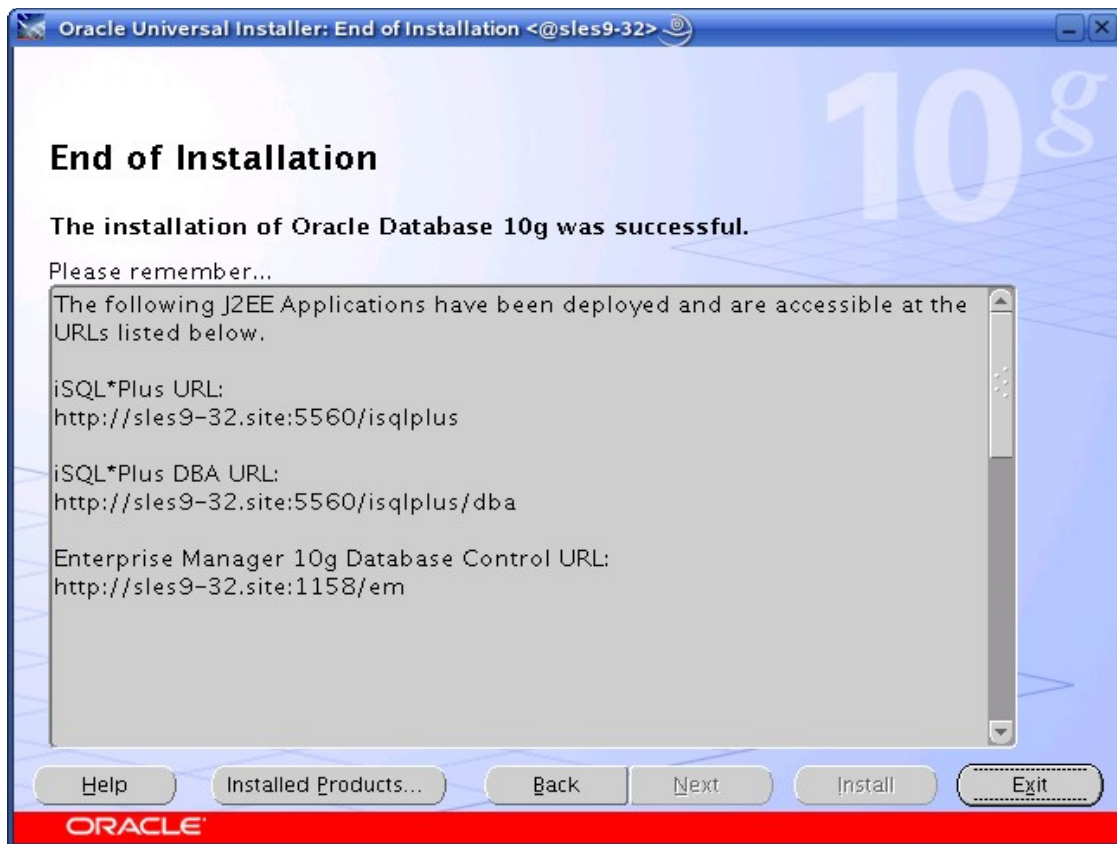
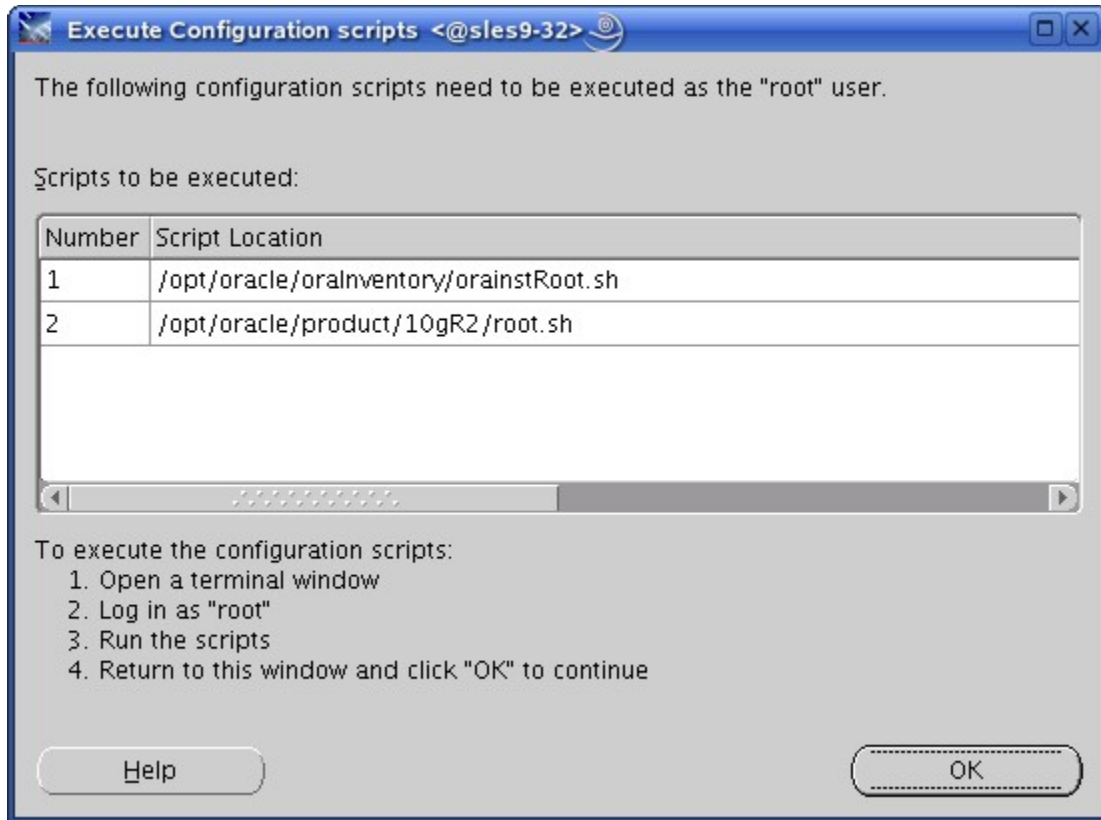
You can specify an Operating System group that has write permission to the above inventory directory. You can leave the field blank if you want to perform the above operations as a Superuser.

Specify Operating System group name:

ORACLE





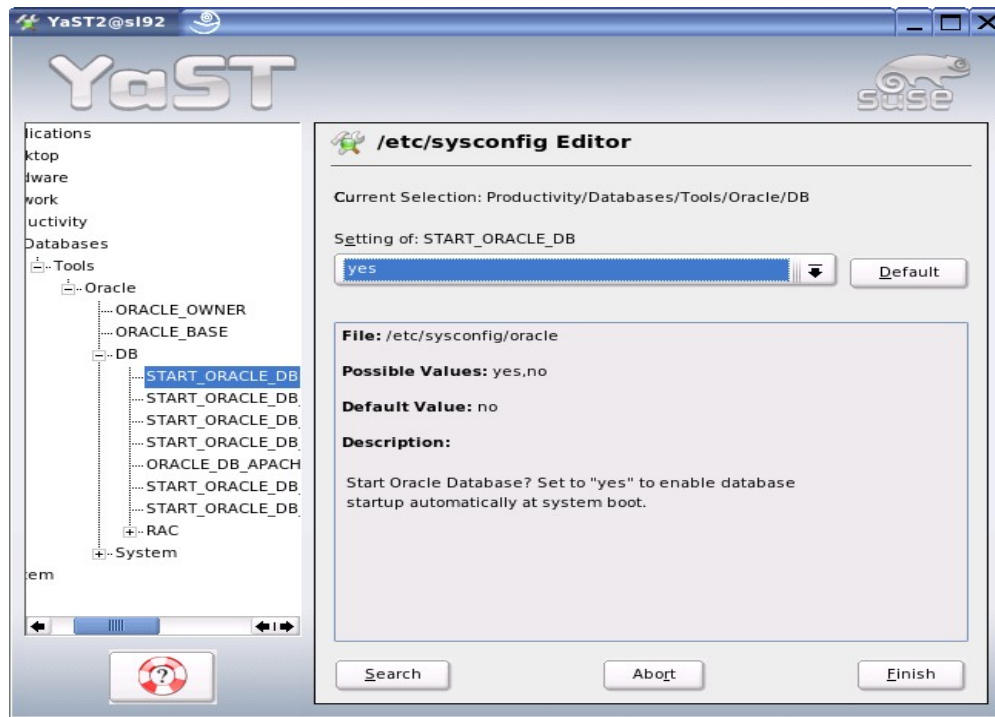


5. Oracle Database Start at boot time

Set parameter `START_ORACLE_DB="yes"` in `"/etc/sysconfig/oracle"` file. You can edit file `"/etc/sysconfig/oracle"` manually or use YaST setup tool to change oracle specific parameters.

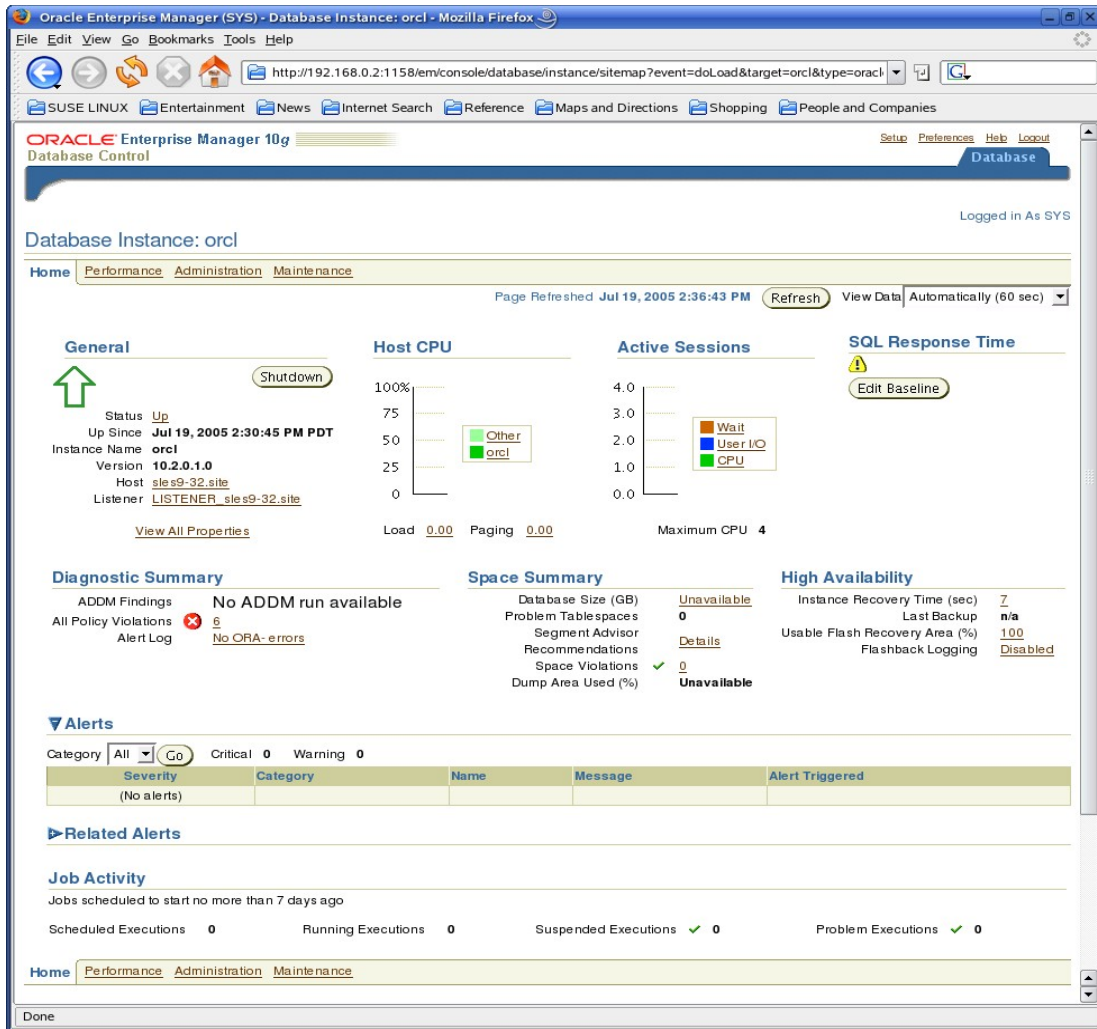
`"/sbin/yast2->System->/etc/sysconfig Editor ->Productivity->Databases"`

1. Edit `/etc/oratab` entry corresponding to your database to "Y".
2. Edit `dbstart`, `dbshut` and `dbhome` scripts to reflect correct location for `ORATAB` entry. i.e `ORATAB=/etc/oratab`



6. Oracle Enterprise Manager

1. Start Oracle dbconsole services if is not started: `emctl start dbconsole`
2. Use Enterprise Manager web interface (<http://localhost:1158/em>) to perform routine database administration and performance tuning tasks.



7. Async I/O : Enable by Default

Unlike previous releases this is enable by default. You can disable/enable using init.ora parameters. You can check /proc/slabinfo if kio values are increasing while async i/o is in use.

i.e. `cat /proc/slabinfo | grep kio`

History:

Date	Changes
07/19/05	Initial Document created.

Enjoy!