一、安装检查及配置

1、检查软硬件

内存，swap(内存>32G,那么设置为32G)

安装软件的磁盘空间分配

/ 40960M

/boot 200M

/swap 32678M

/u01 40960M

/u02 存放数据库文件或者其他用途，实际大小根据具体情况划分

2、创建用户组及用户

groupadd -g 501 oinstall

groupadd -g 502 dba

groupadd -g 503 asmadmin

groupadd -g 504 asmdba

groupadd -g 505 asmoper

useradd -u 501 -g oinstall -G asmadmin,asmdba,asmoper grid

useradd -u 502 -g oinstall -G dba,asmdba oracle

# passwd oracle

Changing password for user oracle.

New UNIX password:

BAD PASSWORD: it is based on a dictionary word

Retype new UNIX password:

passwd: all authentication tokens updated successfully.

# passwd grid

Changing password for user grid.

New UNIX password:

BAD PASSWORD: it is based on a dictionary word

Retype new UNIX password:

passwd: all authentication tokens updated successfully.

[root@hxdb1 ~]#

3、网络

配置hostname

vi /etc/sysconfig/network

vi /etc/hosts配置主机名和IP（根据实际情况而定）：

10.0.86.105 hostname

4、双网卡绑定（根据实际情况修改相应ip，mac地址等参数）

hxdb1

vi /etc/sysconfig/network-scripts/ifcfg-bond0

DEVICE=bond0

BOOTPROTO=none

ONBOOT=yes

TYPE=Ethernet

BROADCAST=196.16.0.255

IPADDR=196.16.0.222

NETMASK=255.255.0.0

NETWORK=196.16.0.0

GATEWAY=196.16.0.254

USERCTL=no

PEERDNS=no

vi /etc/sysconfig/network-scripts/ifcfg-eth0 文件内容（HWADDR地址依据实际情况修改）

DEVICE=eth0

BOOTPROTO=none

MASTER=bond0

SLAVE=yes

TYPE=Ethernet

USERCTL=no

HWADDR=F0:92:1C:06:CD:EC

ONBOOT=yes

PEERDNS=no

vi /etc/sysconfig/network-scripts/ifcfg-eth2 文件内容（HWADDR地址依据实际情况修改）

DEVICE=eth2

BOOTPROTO=none

HWADDR=F0:92:1C:06:CD:EE

ONBOOT=yes

MASTER=bond0

SLAVE=yes

USERCTL=no

TYPE=Ethernet

PEERDNS=no

vi /etc/modeprobe.d/dist.conf

alias bond0 bonding

options bonding miimon=100 mode=1 max\_bonds=1

重启服务器

检查绑定生效

cat /proc/net/bonding/bond0

----- 关闭服务，执行以下操作

chkconfig smartd off

chkconfig auditd off

chkconfig bluetooth off

chkconfig cups off

chkconfig avahi-daemon off

chkconfig hidd off

chkconfig ip6tables off

chkconfig iptables off

chkconfig irqbalance off

chkconfig iscsi off

chkconfig iscsid off

chkconfig mcstrans off

chkconfig nfslock off

chkconfig pcscd off

chkconfig rhnsd off

chkconfig sendmail off

chkconfig tog-pegasus off

chkconfig yum-updatesd off

--检查确认都已关闭

chkconfig --list smartd

chkconfig --list auditd

chkconfig --list bluetooth

chkconfig --list cups

chkconfig --list avahi-daemon

chkconfig --list hidd

chkconfig --list ip6tables

chkconfig --list iptables

chkconfig --list irqbalance

chkconfig --list iscsi

chkconfig --list iscsid

chkconfig --list mcstrans

chkconfig --list nfslock

chkconfig --list pcscd

chkconfig --list rhnsd

chkconfig --list sendmail

chkconfig --list tog-pegasus

chkconfig --list yum-updatesd

6、内核参数

root用户更改：/etc/sysctl.conf

kernel.shmmni = 4096

kernel.sem = 250 32000 100 128

fs.file-max = 6815744

fs.aio-max-nr = 1048576

net.ipv4.ip\_local\_port\_range = 9000 65500

net.core.rmem\_default = 262144

net.core.rmem\_max = 4194304

net.core.wmem\_default = 262144

net.core.wmem\_max = 1048576

#/sbin/sysctl -p立即生效

7、限制参数

/etc/security/limits.conf

grid soft nproc 2047

grid hard nproc 16384

grid soft nofile 1024

grid hard nofile 65536

oracle soft nproc 2047

oracle hard nproc 16384

oracle soft nofile 1024

oracle hard nofile 65536

在 /etc/profile 中最后添加以下

if [ $USER = "oracle" ] || [ $USER = "grid" ]; then

if [ $SHELL = "/bin/ksh" ]; then

ulimit -p 16384

ulimit -n 65536

else

ulimit -u 16384 -n 65536

fi

umask 022

fi

8、创建目录

oracle Inventory Directory

mkdir -p /u01/app/oraInventory

chown -R oracle:oinstall /u01/app/oraInventory

chmod -R 775 /u01/app/oraInventory

Oracle Base Directory

mkdir -p /u01/app/oracle

chown -R oracle:oinstall /u01/app/oracle

chmod -R 775 /u01/app/oracle

Oracle RDBMS Home Directory

mkdir -p /u01/app/oracle/product/11.2.0/db\_1

chown -R oracle:oinstall /u01/app/oracle/product/11.2.0/db\_1

chmod -R 775 /u01/app/oracle/product/11.2.0/db\_1

9、检查软件环境

以下是64位系统需要的包，确认都已安装

binutils-2.15.92.0.2

compat-libstdc++-33-3.2.3

compat-libstdc++-33-3.2.3 (32 bit)

elfutils-libelf-0.97

elfutils-libelf-devel-0.97

expat-1.95.7

gcc-3.4.6

gcc-c++-3.4.6

glibc-2.3.4-2.41

glibc-2.3.4-2.41 (32 bit)

glibc-common-2.3.4

glibc-devel-2.3.4

glibc-headers-2.3.4

libaio-0.3.105

libaio-0.3.105 (32 bit)

libaio-devel-0.3.105

libaio-devel-0.3.105 (32 bit)

libgcc-3.4.6

libgcc-3.4.6 (32-bit)

libstdc++-3.4.6

libstdc++-3.4.6 (32 bit)

libstdc++-devel 3.4.6

make-3.80

pdksh-5.2.14

sysstat-5.0.5

unixODBC-2.2.11

unixODBC-2.2.11 (32 bit)

unixODBC-devel-2.2.11

unixODBC-devel-2.2.11 (32 bit)

rpm -qa | grep binutils

rpm -qa | grep compat-libstdc++

rpm -qa | grep elfutils-libelf

rpm -qa | grep elfutils-libelf-devel

rpm -qa | grep expat

rpm -qa | grep gcc

rpm -qa | grep gcc-c++

rpm -qa | grep glibc

rpm -qa | grep glibc-common

rpm -qa | grep glibc-devel

rpm -qa | grep glibc-headers

rpm -qa | grep libaio

rpm -qa | grep libaio-devel

rpm -qa | grep libgcc

rpm -qa | grep libstdc++

rpm -qa | grep libstdc++-devel

rpm -qa | grep make

rpm -qa | grep pdksh

rpm -qa | grep sysstat

rpm -qa | grep unixODBC

rpm -qa | grep unixODBC-devel

rpm -q --qf '%{NAME}-%{VERSION}-%{RELEASE} (%{ARCH})\n' binutils \

compat-libstdc++-33 \

elfutils-libelf \

elfutils-libelf-devel \

gcc \

gcc-c++ \

glibc \

glibc-common \

glibc-devel \

glibc-headers \

ksh \

libaio \

libaio-devel \

libgcc \

libstdc++ \

libstdc++-devel \

make \

sysstat \

unixODBC \

unixODBC-devel

10、配置oracle环境变量

PATH=$PATH:$HOME/bin

export PATH

unset USERNAME

export ORACLE\_BASE=/u01/app/oracle

export ORACLE\_HOME=$ORACLE\_BASE/product/11.2.0/db\_1

export ORACLE\_SID=wskhdb

export ORACLE\_TERM=xterm

export NLS\_LANG="AMERICAN\_AMERICA.AL32UTF8"

export LD\_LIBRARY\_PATH=$ORACLE\_HOME/lib:$ORACLE\_HOME/network/lib:/lib:/usr/lib:/usr/local/lib

export LIBPATH=$ORACLE\_HOME/lib:$ORACLE\_HOME/network/lib:/lib:/usr/lib:/usr/local/lib

export PATH=$PATH:/sbin:/usr/bin:/usr/sbin:$ORACLE\_HOME/bin:$ORACLE\_HOME/lib:$HOME/bin:.

umask 022

11、安装数据库软件

解压两个安装包

unzip p13390677\_112040\_Linux-x86-64\_1of7.zip

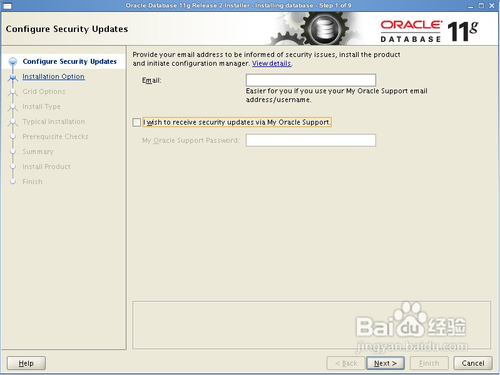
unzip p13390677\_112040\_Linux-x86-64\_2of7.zip

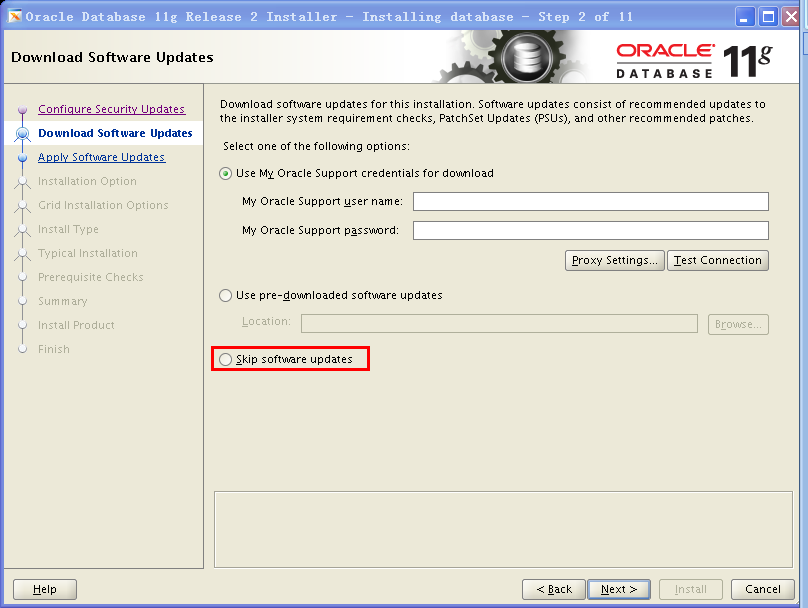
安装

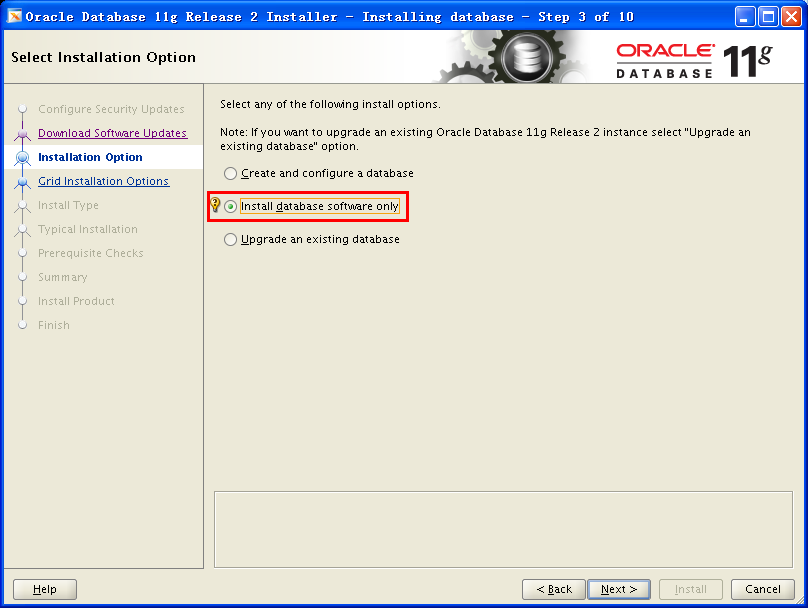
./runInstaller

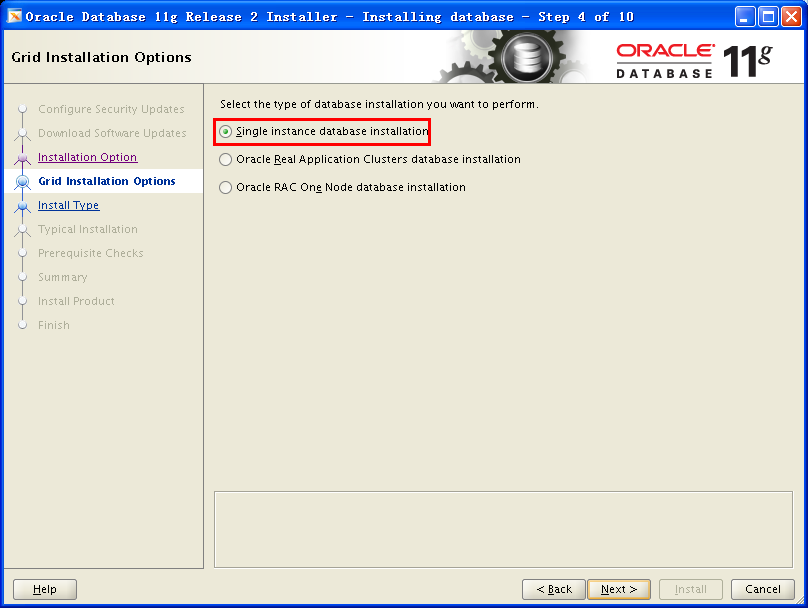
**在建库的过程中，注意：**

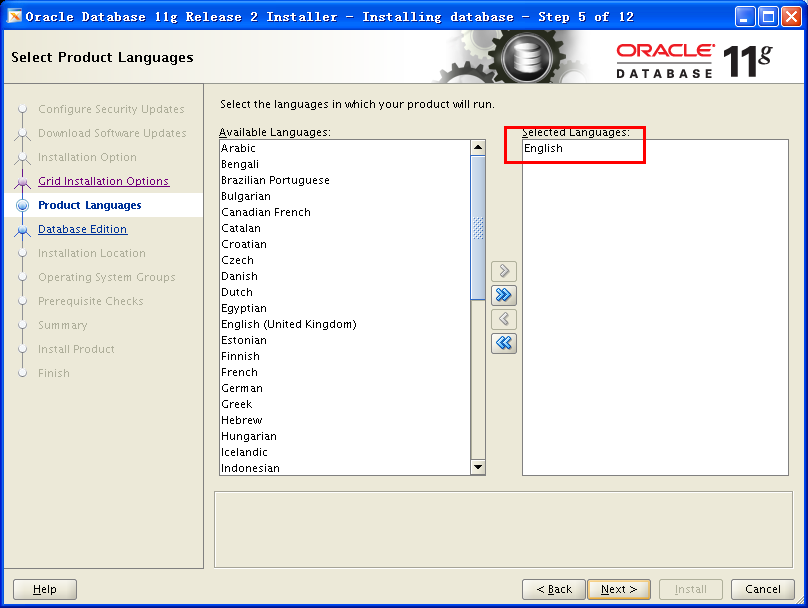
安装准备工作完毕之后，我们即可看到oracle图形化的安装界面(如下图所示)。

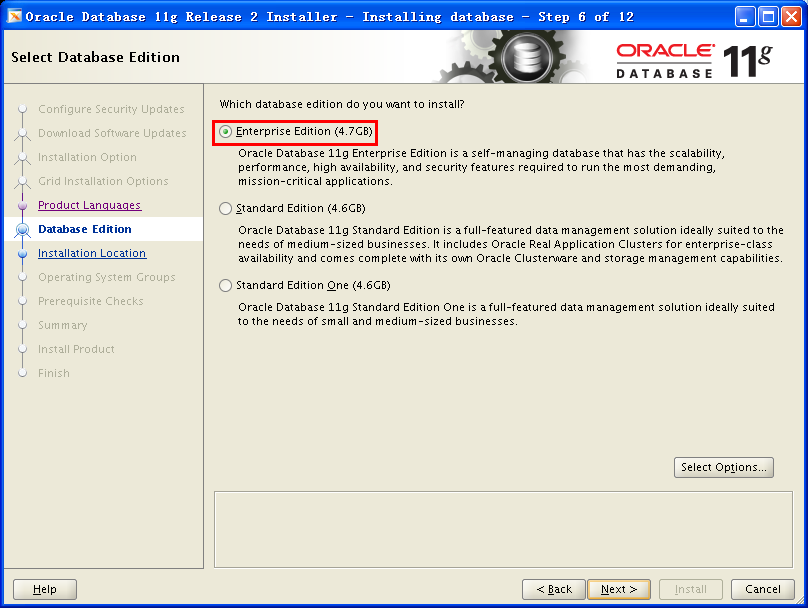
[](http://jingyan.baidu.com/album/22a299b57870f29e19376adf.html?picindex=2)

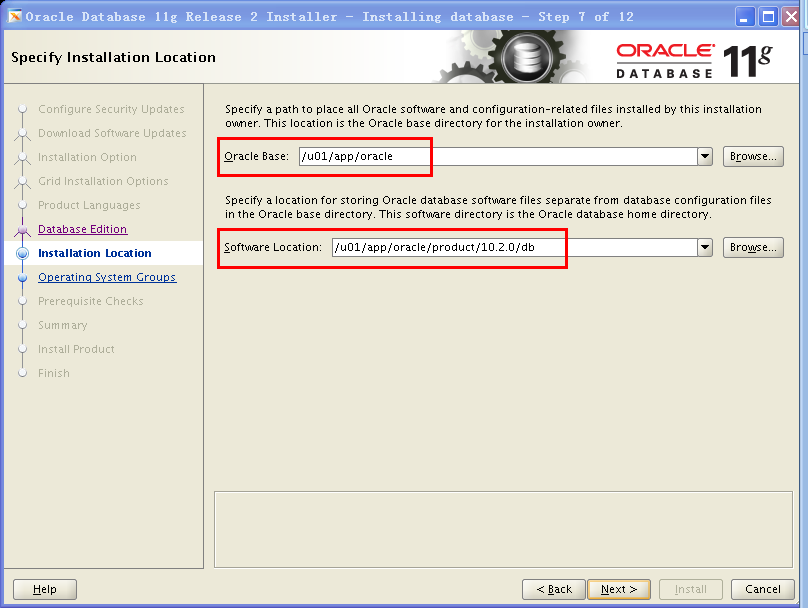


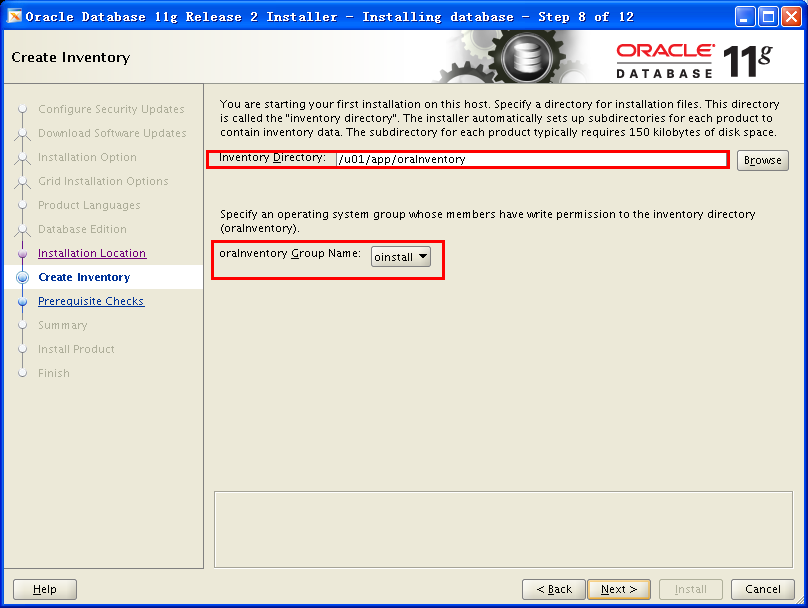


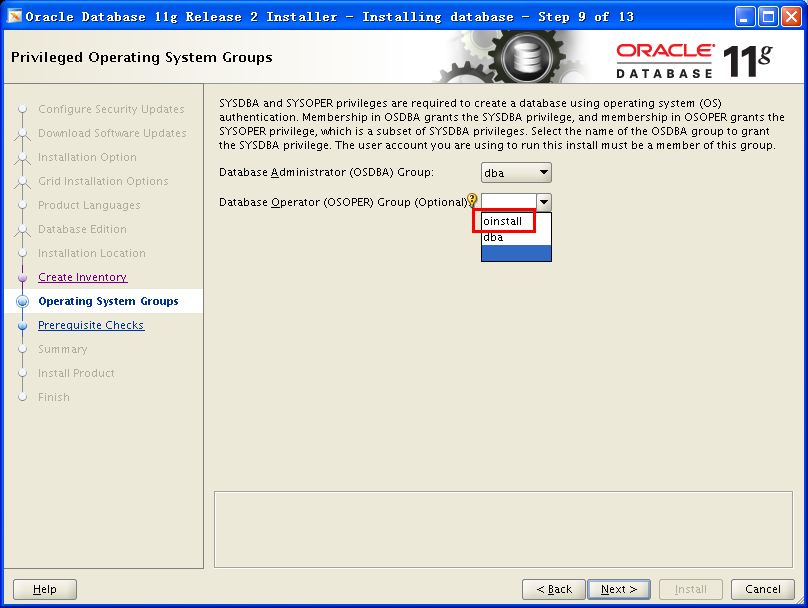




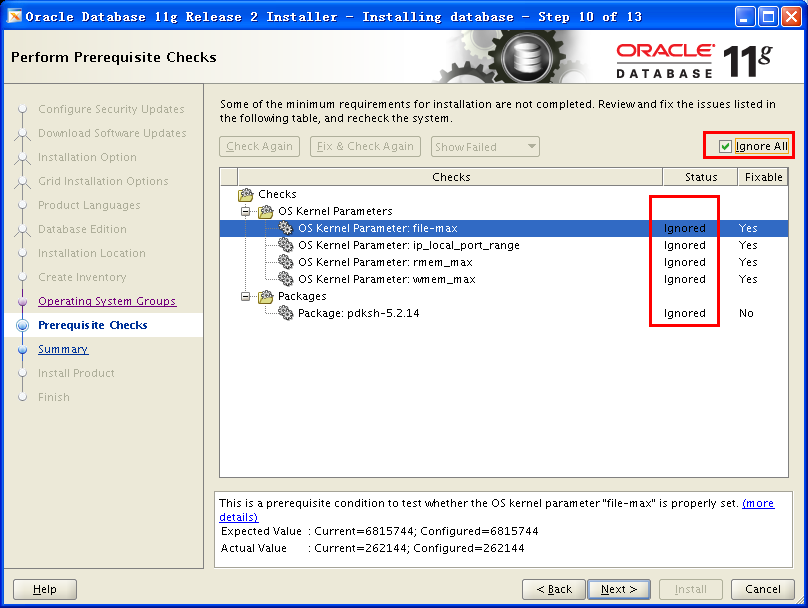


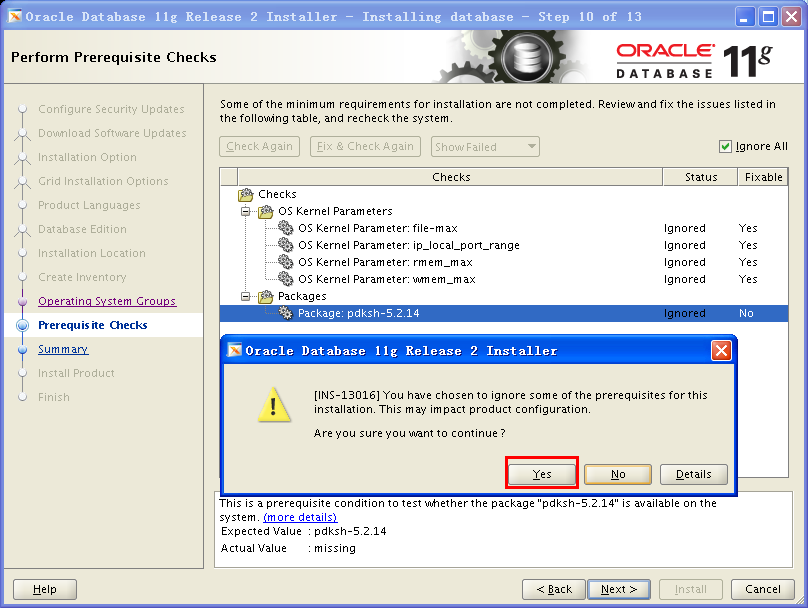


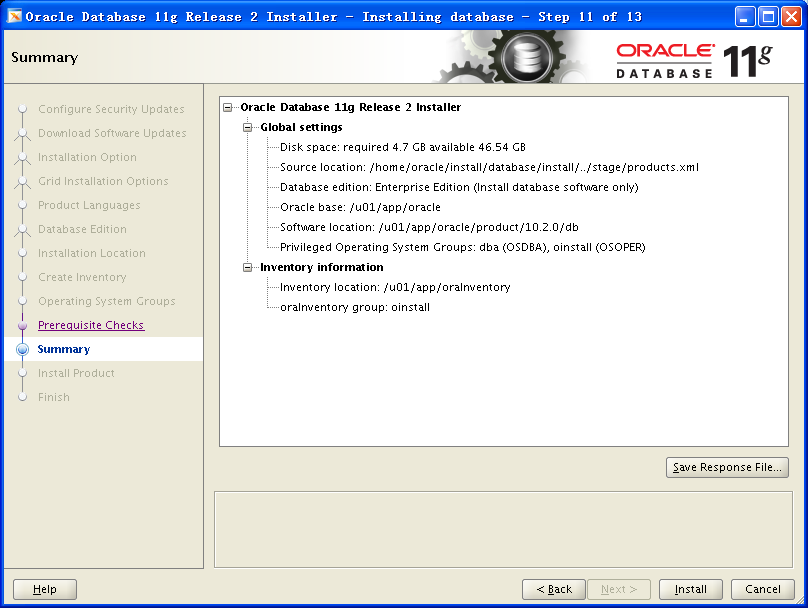


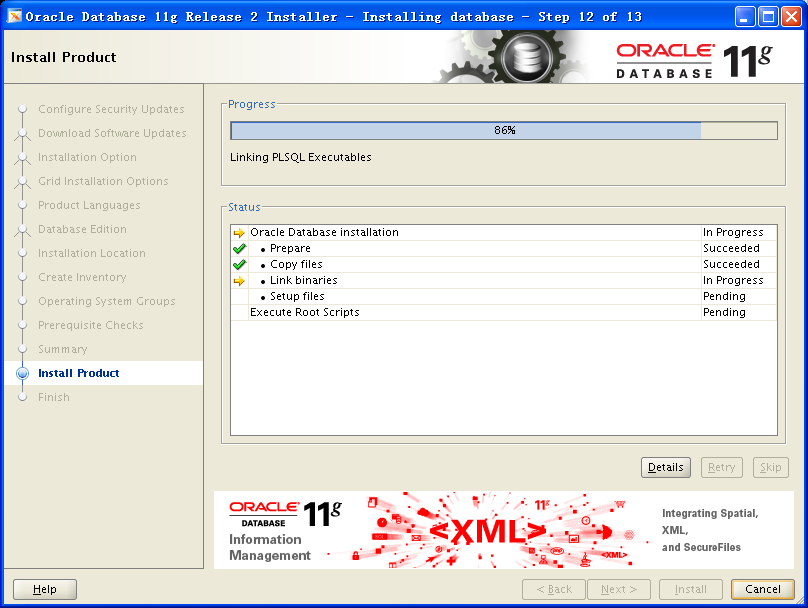


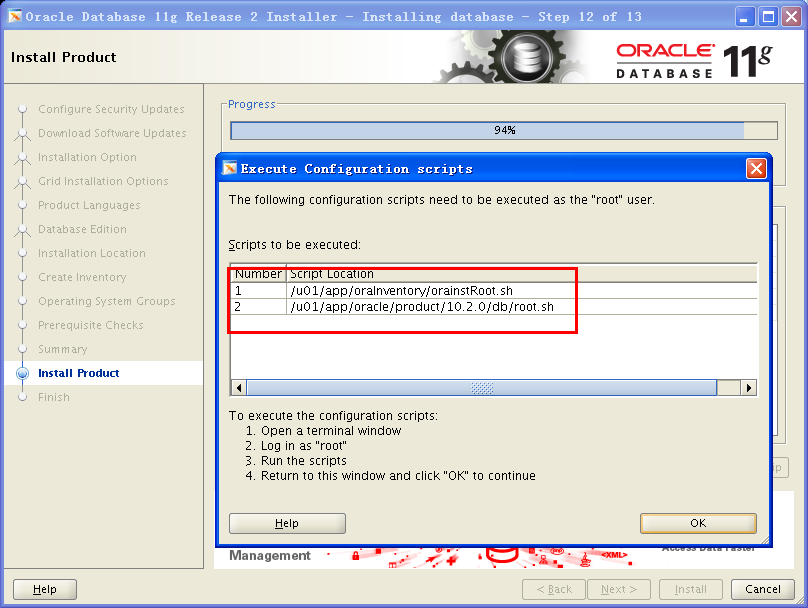
**下图中点Fix&Check Again来修复OS Kernel Parameter 的参数设置，pdksh包可以忽略**

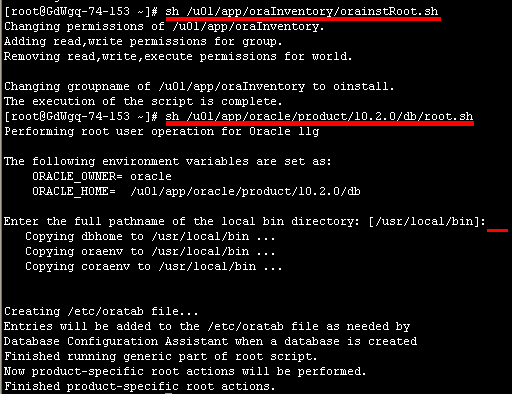


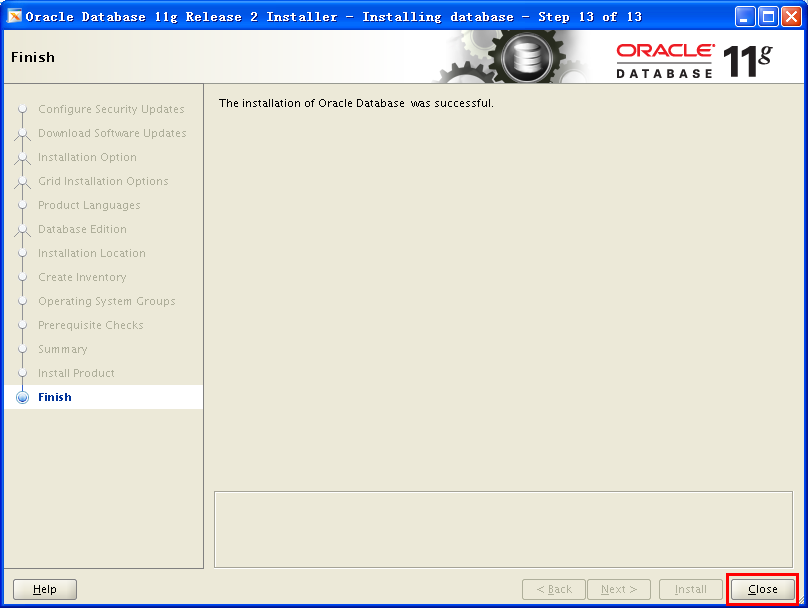












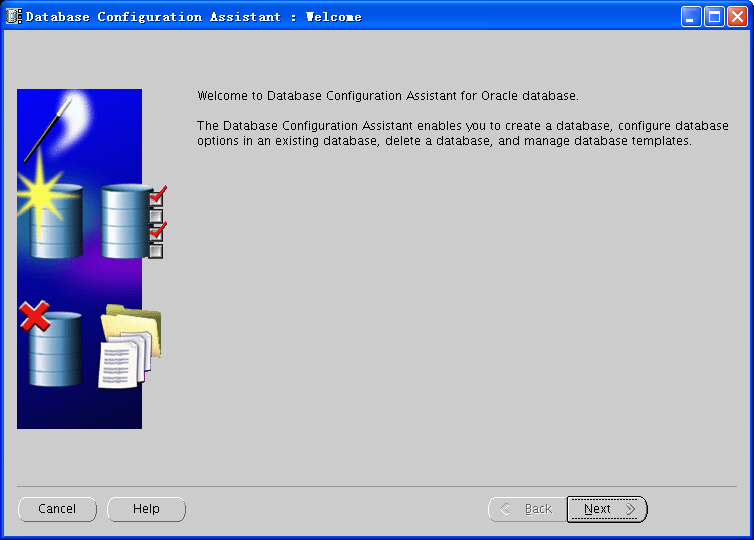
12、dbca创建数据库

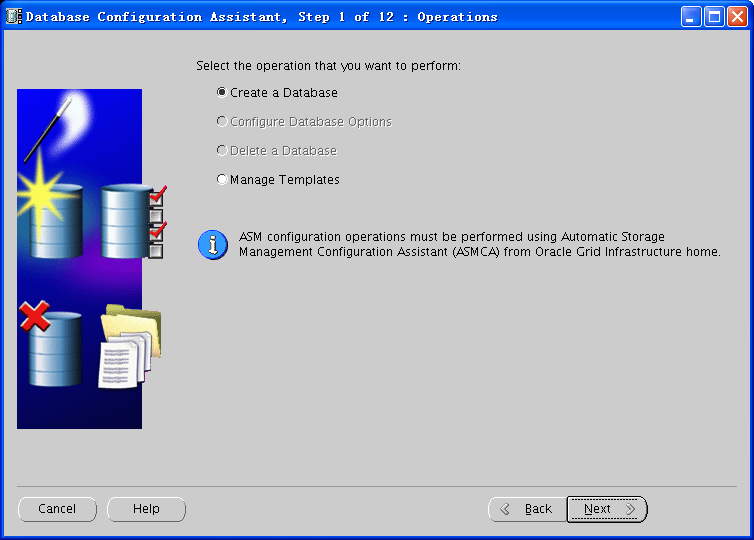
$ id

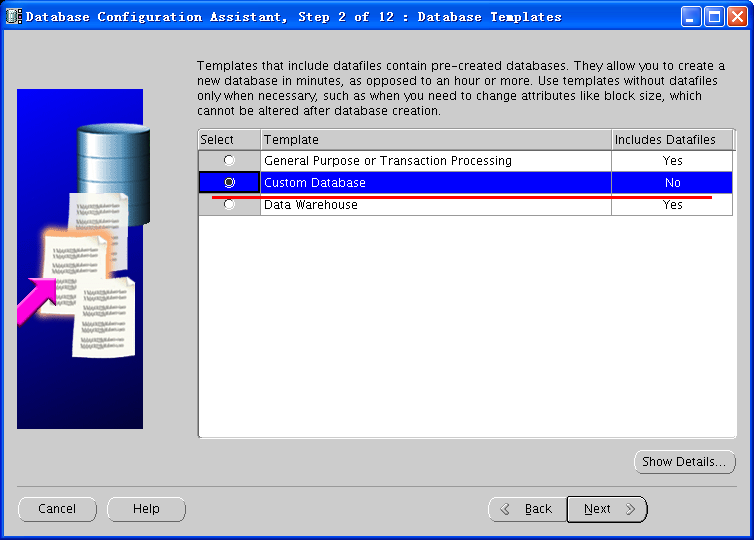
uid=502(oracle) gid=501(oinstall) groups=501(oinstall),502(dba),504(asmdba)

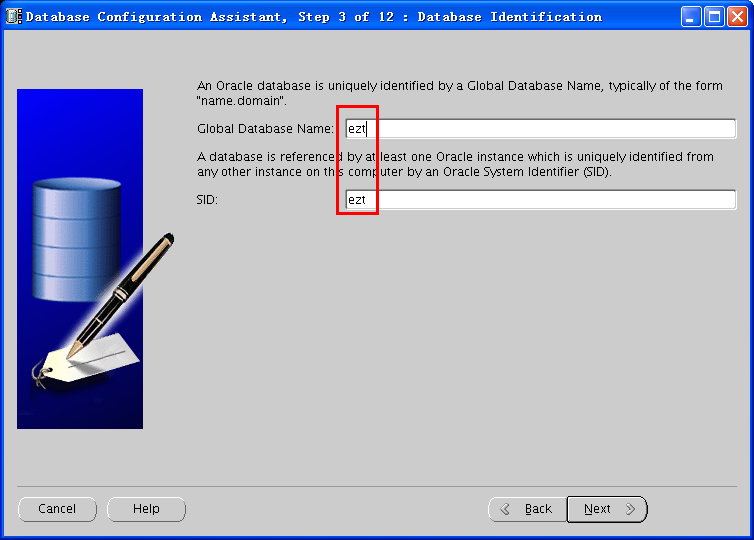
$ dbca

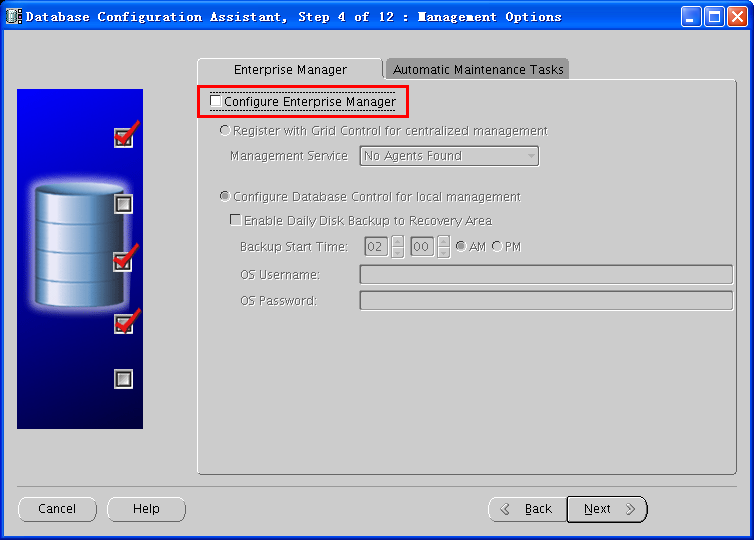
以oracle用户身份通过Xshell登录Linux，执行命令：dbca后，出现如下界面，点击Next继续



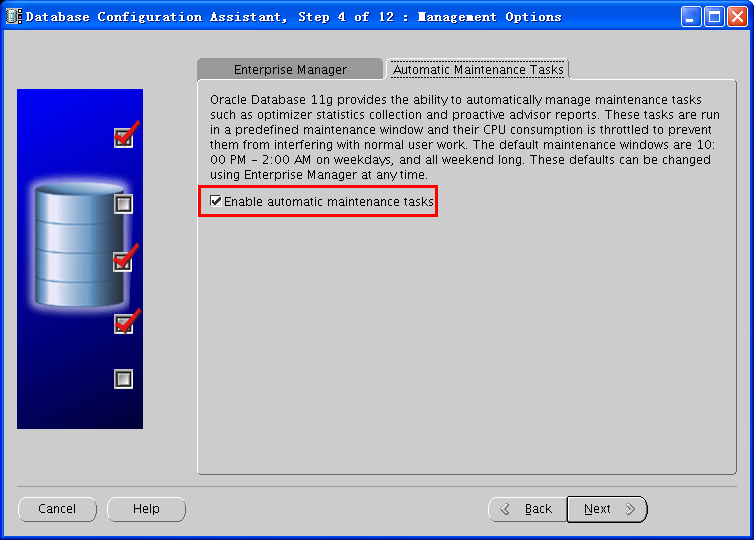


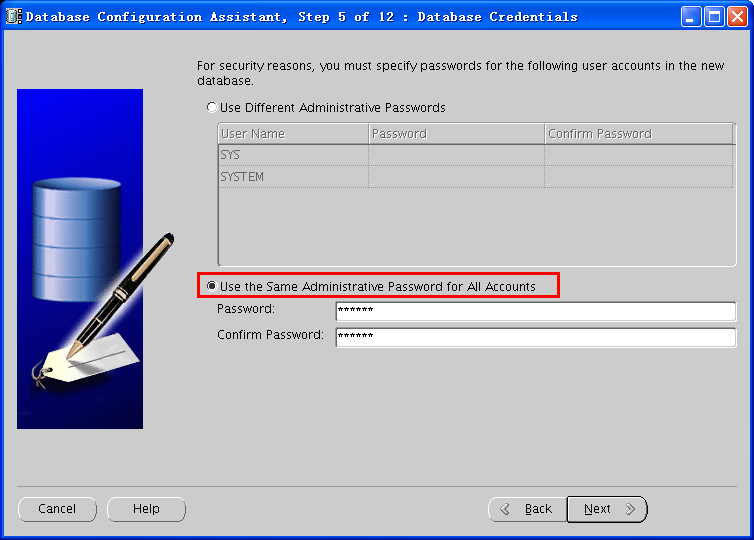


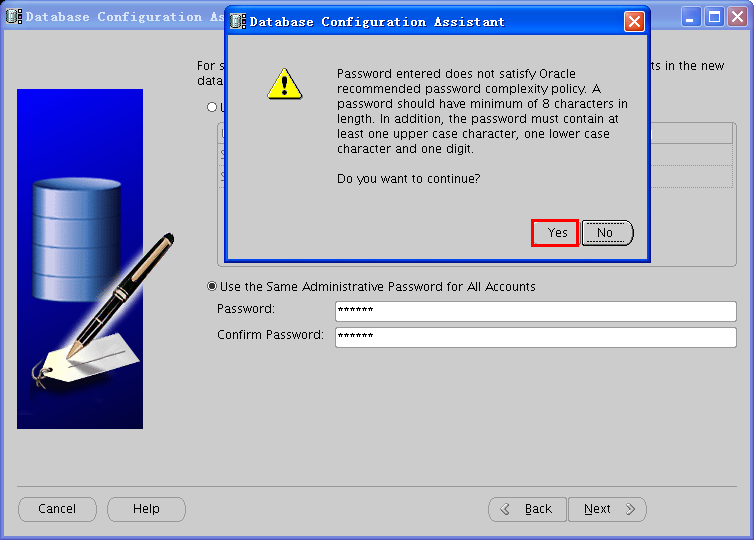




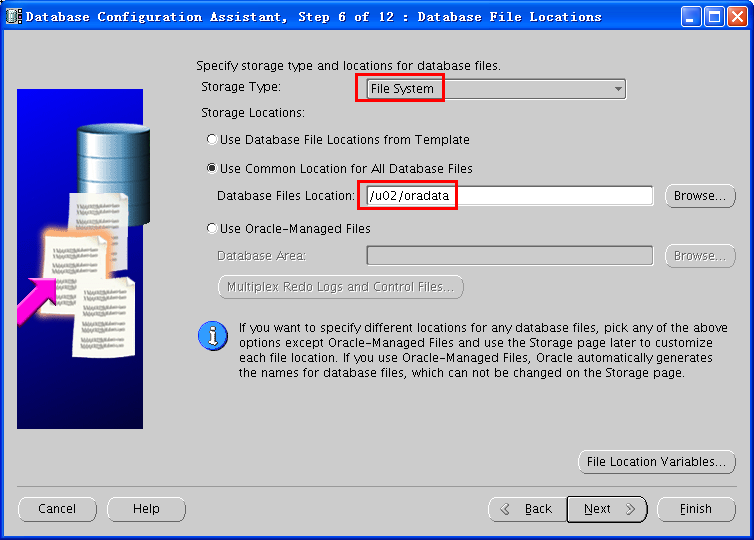
**去掉勾选 Enable automatic maintenance tasks**

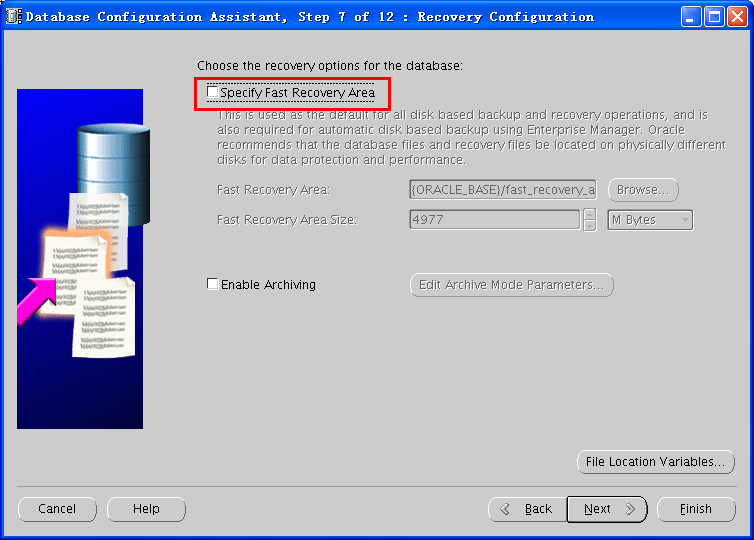


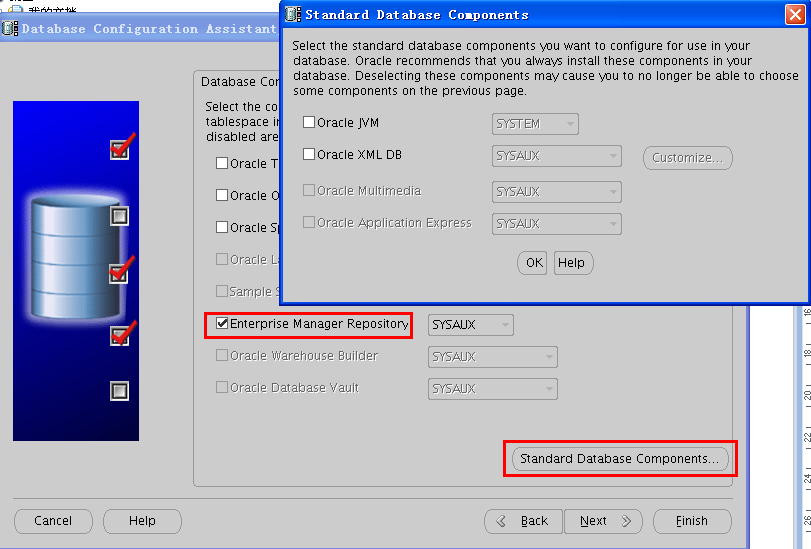


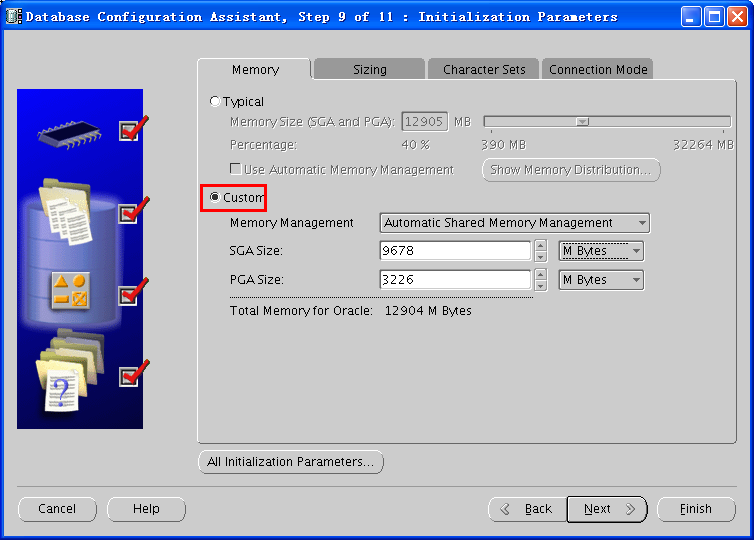


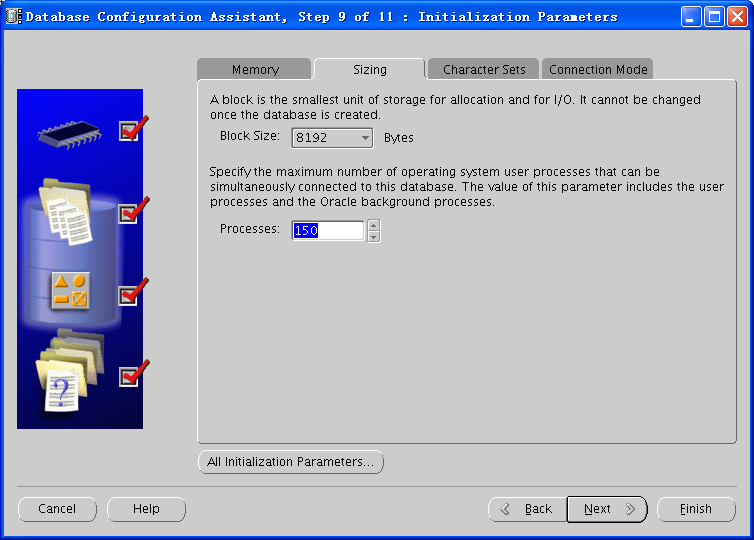




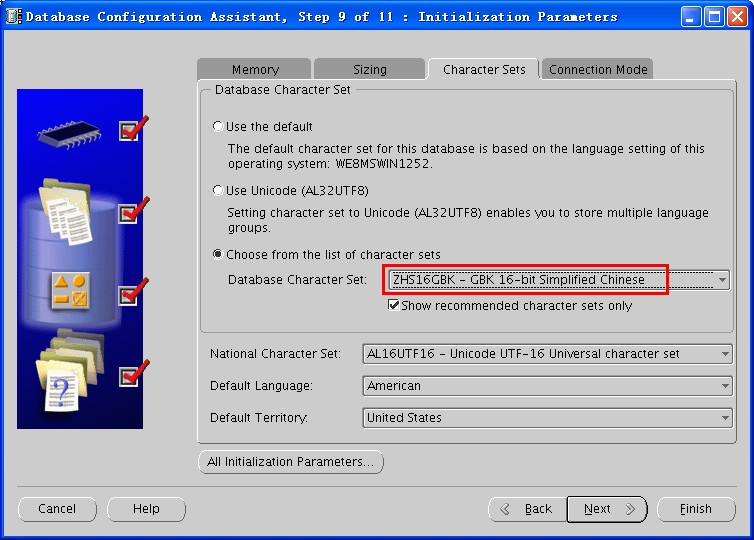


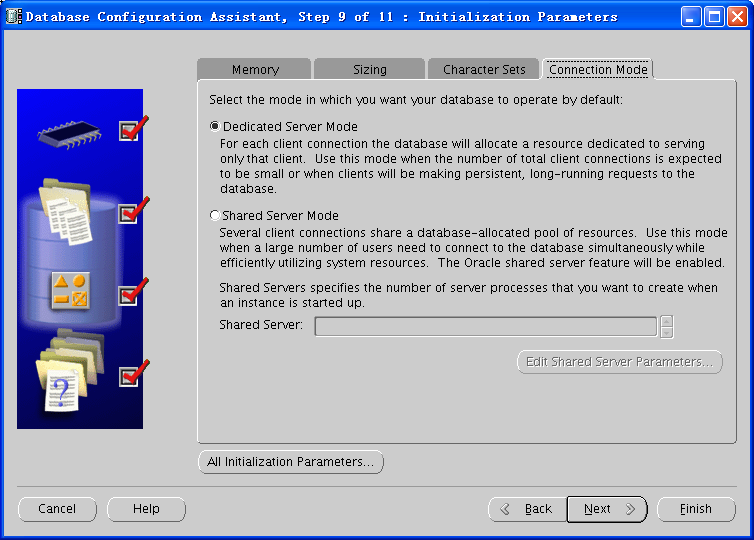


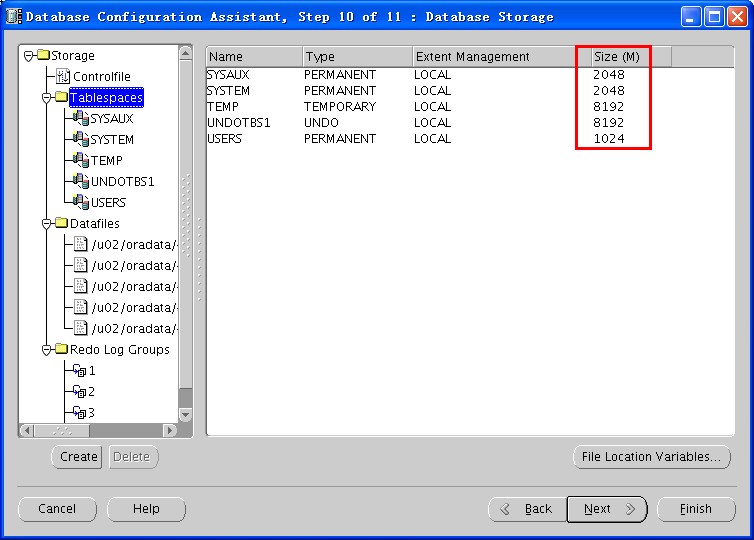


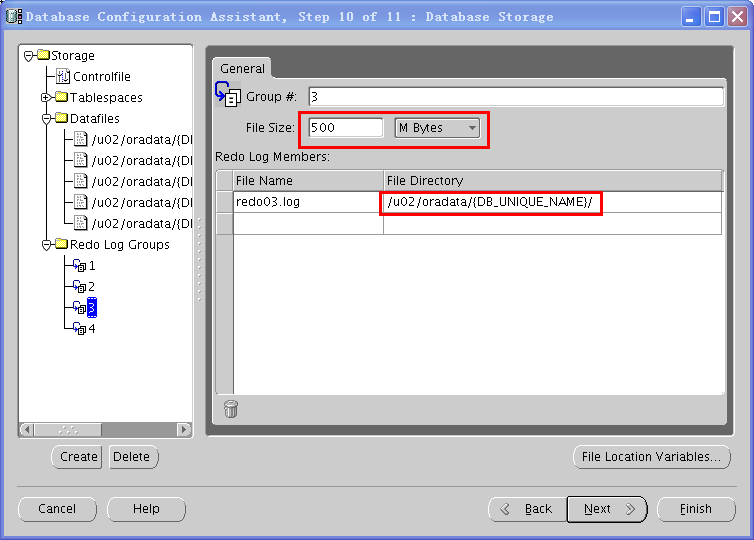


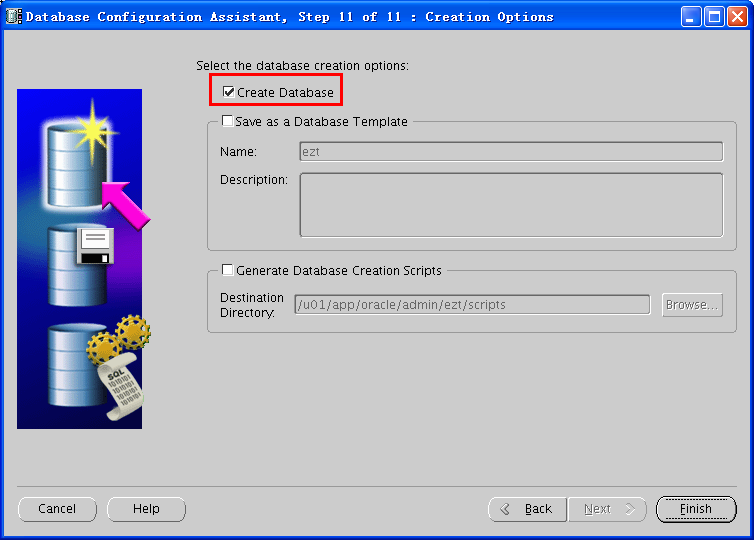
一般使用的字符集是ZHS.16GBK，用这个字符集，请再次与应用人员确认！ 下面的National Character Set 选择默认

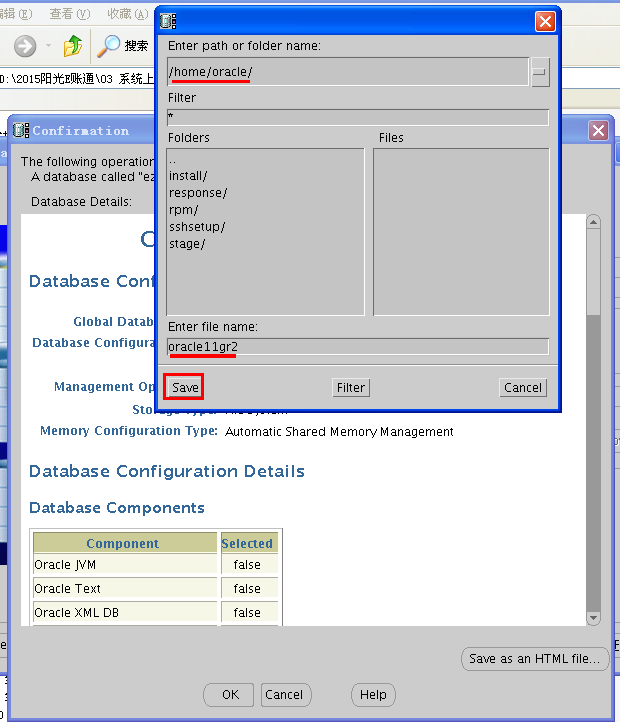


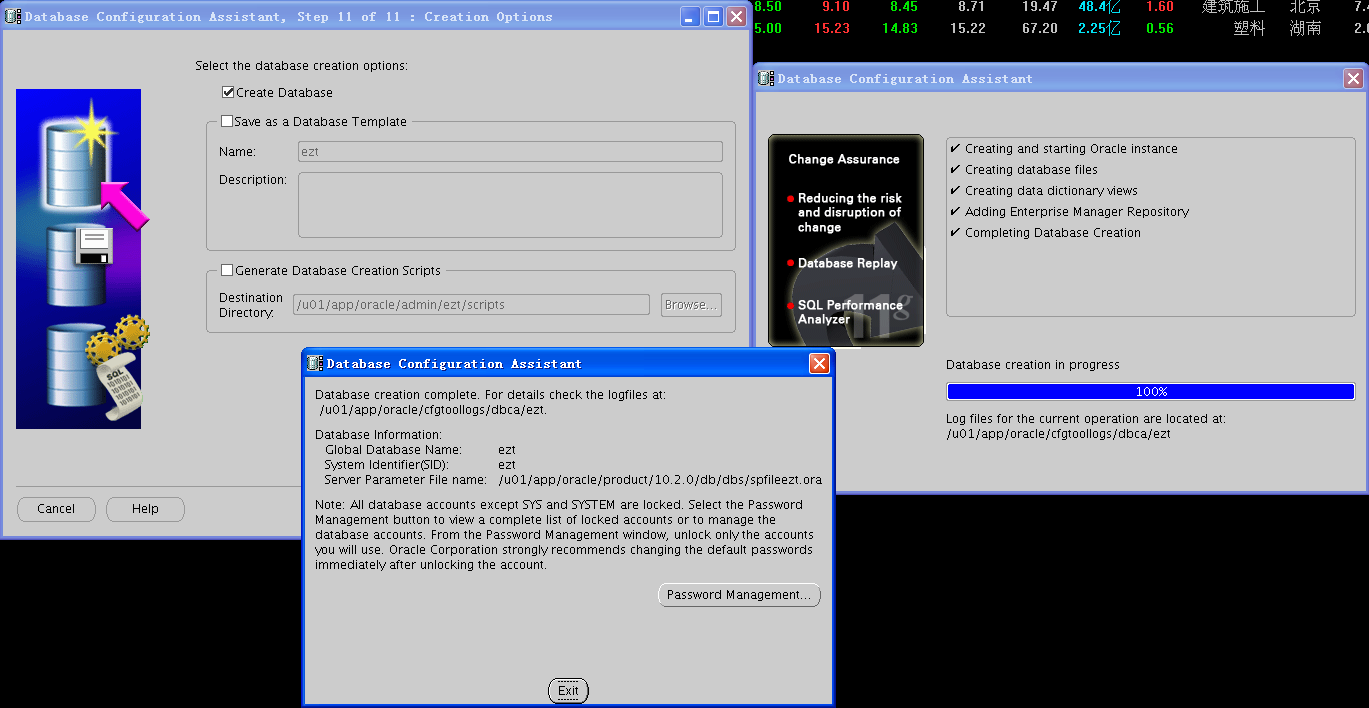






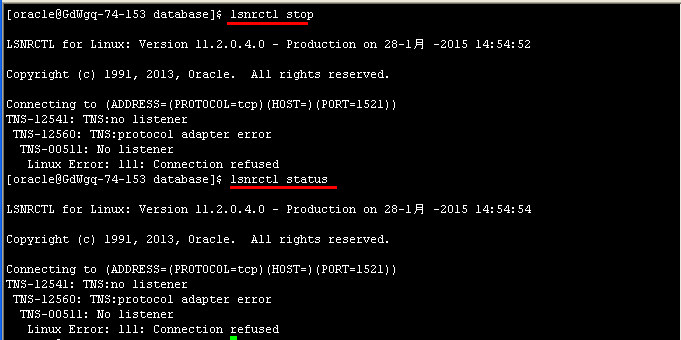




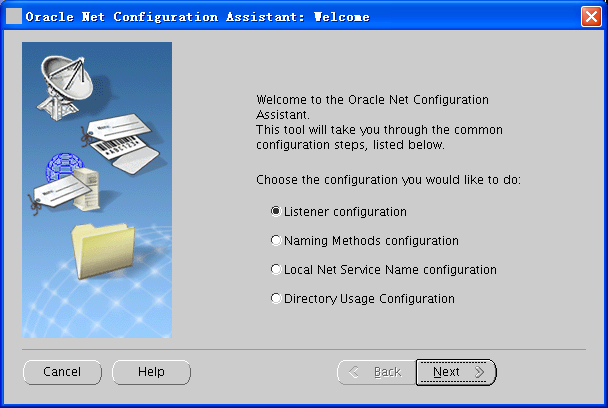


创建监听(oracle 身份)

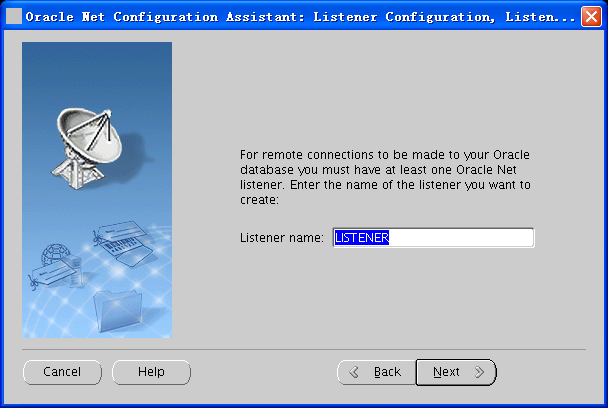
1. 在创建监听之前先用lsnrctl stop命令将默认的监听停止

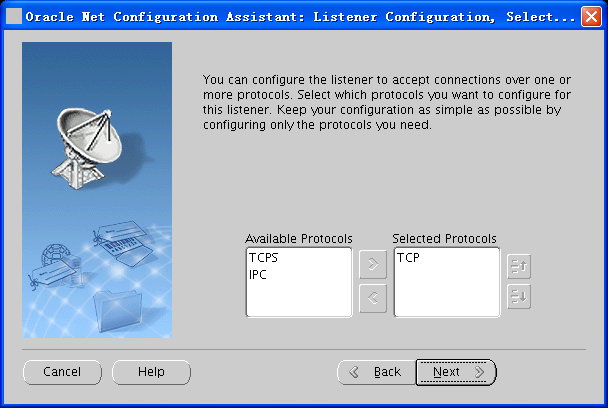


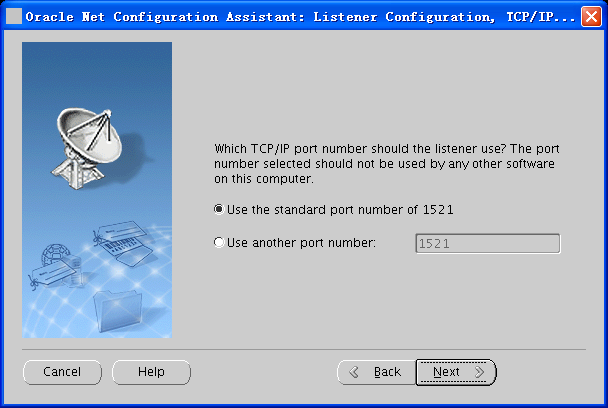
2．然后在ORACLE用户图形界面下运行 netca 命令监听一直按下一步就能完成配置

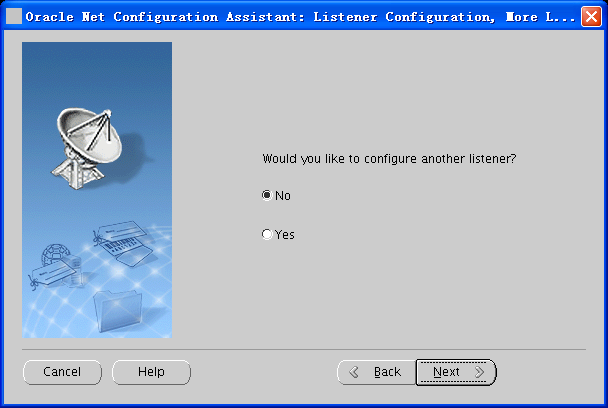




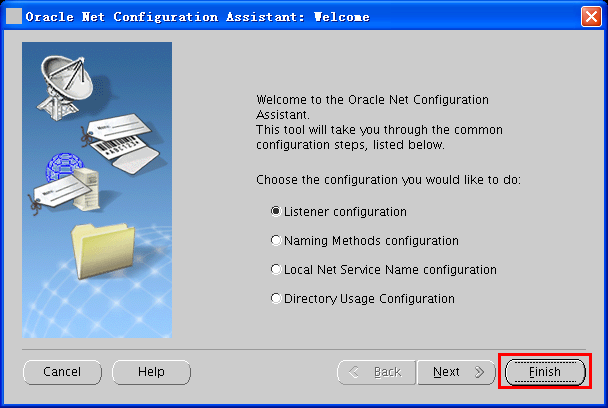


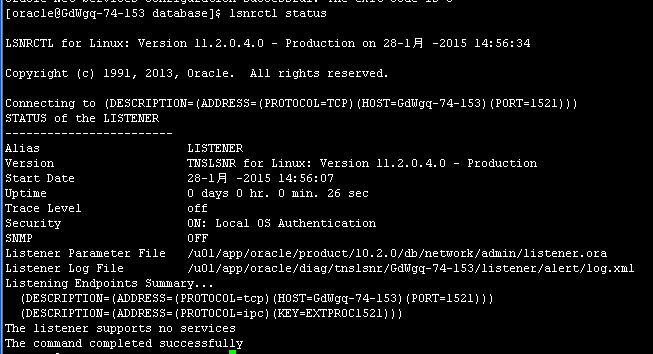












5.2.1. 一般参数

alter system set open\_cursors=20000 scope=spfile sid='\*';

alter system set session\_cached\_cursors=300 scope=spfile sid='\*';

alter system set OPTIMIZER\_INDEX\_COST\_ADJ=10 scope=spfile sid='\*';

alter system set max\_dump\_file\_size ="10G" scope=spfile sid='\*';

alter system set deferred\_segment\_creation=false scope=spfile sid='\*';

alter system set SEC\_CASE\_SENSITIVE\_LOGON =FALSE scope=both sid='\*';

alter system set parallel\_force\_local=true scope=spfile sid='\*';

alter system set "\_use\_adaptive\_log\_file\_sync"=false scope=spfile sid='\*';

alter system set db\_file\_multiblock\_read\_count=16 scope=spfile sid='\*';

alter system set optimizer\_index\_caching=90 scope=spfile sid='\*';

alter system set event='28401 trace name context forever, level 1:10949 trace name context forever,level 1' scope=spfile sid='\*';

alter system set dispatchers='' scope=spfile sid='\*';

alter system set db\_file\_multiblock\_read\_count=16 scope=spfile sid='\*';

alter system set db\_writer\_processes=4 scope=spfile sid='\*'; (根据系统调整)

alter system set db\_files=2048 scope=spfile sid='\*'; (根据业务系统调整)

alter system set optimizer\_mode=ALL\_ROWS scope=spfile sid='\*';(根据业务系统调整)

alter system set processes=3000 scope=spfile sid='\*'; (根据业务系统调整)

alter system set sga\_max\_size=12G scope=spfile sid='\*'; (根据系统调整)

alter system set sga\_target=12G scope=spfile sid='\*';

alter system set pga\_aggregate\_target=4G scope=spfile sid='\*';

注：sga\_max\_size+ pga\_aggregate\_target=物理内存/2 （可适当放大）

sga\_max\_size=(物理内存/2) \*(2/3)

pga\_aggregate\_target=(物理内存/2) \*(1/3)

sga\_target=sga\_max\_size

以上是物理内存32G示例

5.2.2. 关闭auto space

exec dbms\_scheduler.disable('ORACLE\_OCM.MGMT\_CONFIG\_JOB');

exec dbms\_scheduler.disable('ORACLE\_OCM.MGMT\_STATS\_CONFIG\_JOB');

begin

DBMS\_AUTO\_TASK\_ADMIN.DISABLE(client\_name => 'auto optimizer stats collection',

operation => NULL,

window\_name => NULL);

end;

/

begin

dbms\_auto\_task\_admin.disable(

client\_name => 'auto space advisor',

operation => NULL,

window\_name => NULL);

end;

/

begin

dbms\_auto\_task\_admin.disable(

client\_name => 'sql tuning advisor',

operation => NULL,

window\_name => NULL);

end;

/

5.2.3. 关闭resource\_manager\_plan

alter system set resource\_manager\_plan='' scope=both;

execute dbms\_scheduler.set\_attribute('WEEKNIGHT\_WINDOW','RESOURCE\_PLAN','');

execute dbms\_scheduler.set\_attribute('WEEKEND\_WINDOW','RESOURCE\_PLAN','');

execute dbms\_scheduler.set\_attribute('SATURDAY\_WINDOW','RESOURCE\_PLAN','');

execute dbms\_scheduler.set\_attribute('SUNDAY\_WINDOW','RESOURCE\_PLAN','');

execute dbms\_scheduler.set\_attribute('MONDAY\_WINDOW','RESOURCE\_PLAN','');

execute dbms\_scheduler.set\_attribute('TUESDAY\_WINDOW','RESOURCE\_PLAN','');

execute dbms\_scheduler.set\_attribute('WEDNESDAY\_WINDOW','RESOURCE\_PLAN','');

execute dbms\_scheduler.set\_attribute('THURSDAY\_WINDOW','RESOURCE\_PLAN','');

execute dbms\_scheduler.set\_attribute('FRIDAY\_WINDOW','RESOURCE\_PLAN','');

5.2.4. 禁用EMD\_MAINTENANCE.EXECUTE\_EM\_DBMS\_JOB\_PROCS()

exec sysman.emd\_maintenance.remove\_em\_dbms\_jobs;

commit;

5.2.5. 取消profile对用户的相关限制

alter profile default limit FAILED\_LOGIN\_ATTEMPTS unlimited;

ALTER PROFILE DEFAULT LIMIT PASSWORD\_LIFE\_TIME UNLIMITED;

5.2.6. 关闭11g默认审计设置

alter system set audit\_trail=none scope=spfile sid='\*';

5.2.7. 解决11gR2数据库的ALERT文件频繁出现Fatal NI connect error 12170错误

#su - grid

$cd $ORACLE\_HOME/network/admin

修改sqlnet.ora，没有则新建，添加： DIAG\_ADR\_ENABLED = OFF

修改listener.ora，添加： DIAG\_ADR\_ENABLED\_LISTENER = OFF

重启或reload监听。

注意：grid用户下的TNS\_ADMIN环境变量要设置正确。