

Oracle[®] Tutor[™]



Section2 注意事项和答案

1. 创建 EMREP 数据库

DBCA创建EMREP数据库，并创建监听。

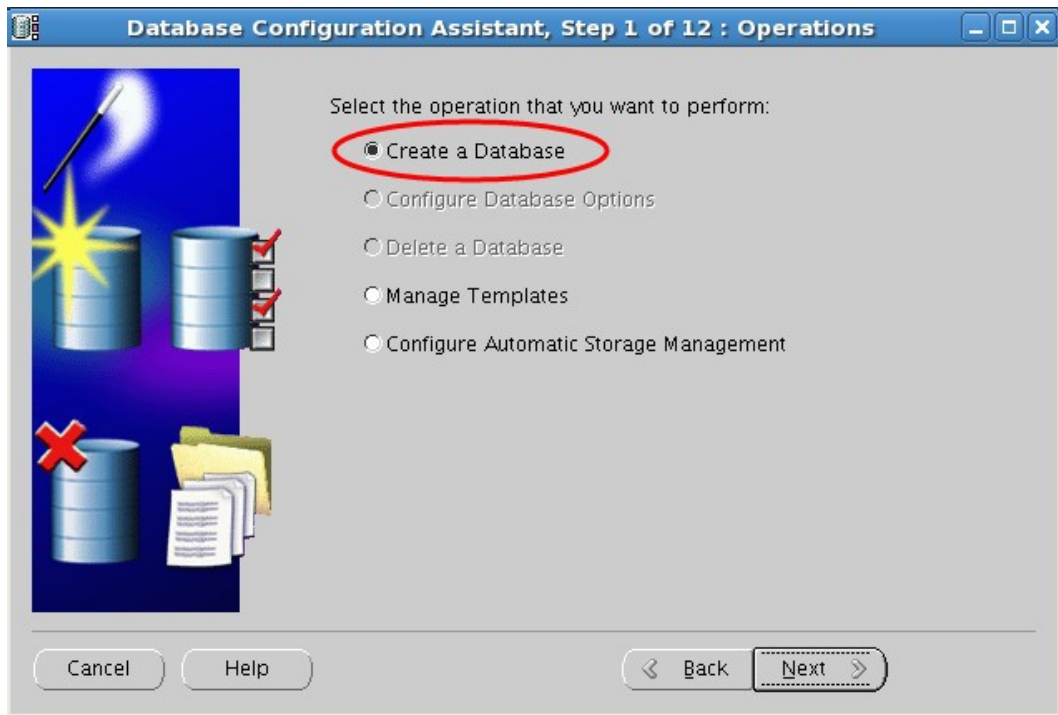
需要注意的地方：

1创建EMREP数据库时，在组件选择时，只选择Oracle Label Security。

2数据库字符集要与PROD数据库保持一致。

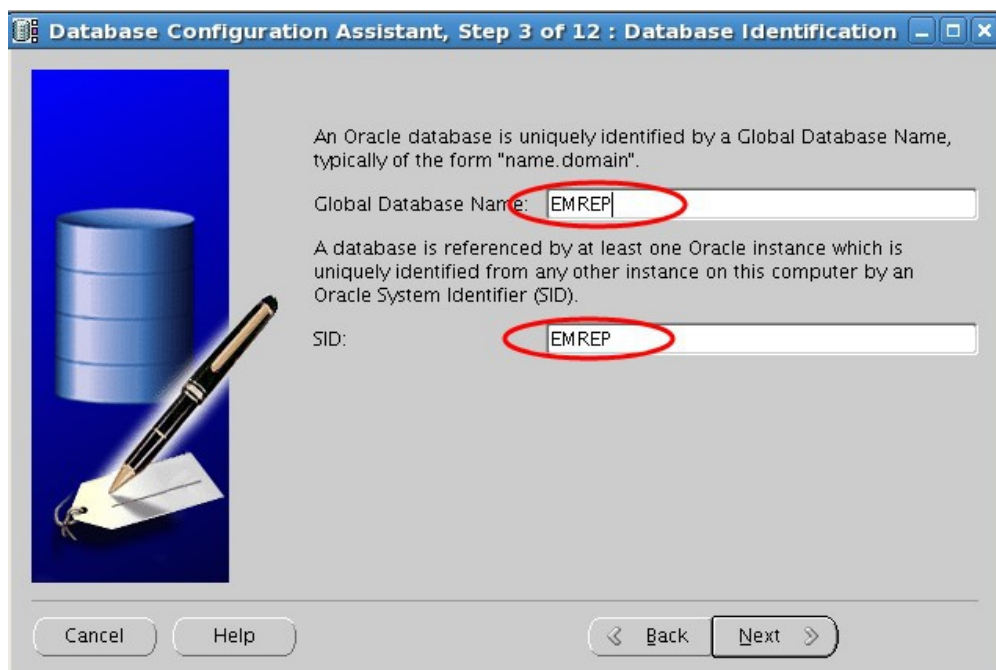
dbca建库

```
[oracle@server02 u01]$ dbca
```



安装模板选择Custom Database或其他模板

Select	Template	Includes Datafiles
<input checked="" type="radio"/>	Custom Database	No
<input type="radio"/>	Data Warehouse	Yes
<input type="radio"/>	General Purpose	Yes
<input type="radio"/>	Transaction Processing	Yes



勾掉EM选项。

Database Configuration Assistant, Step 4 of 12 : 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:

Database Configuration Assistant, Step 5 of 12 : Database Credentials

For security reasons, you must specify passwords for the following user accounts in the new database.

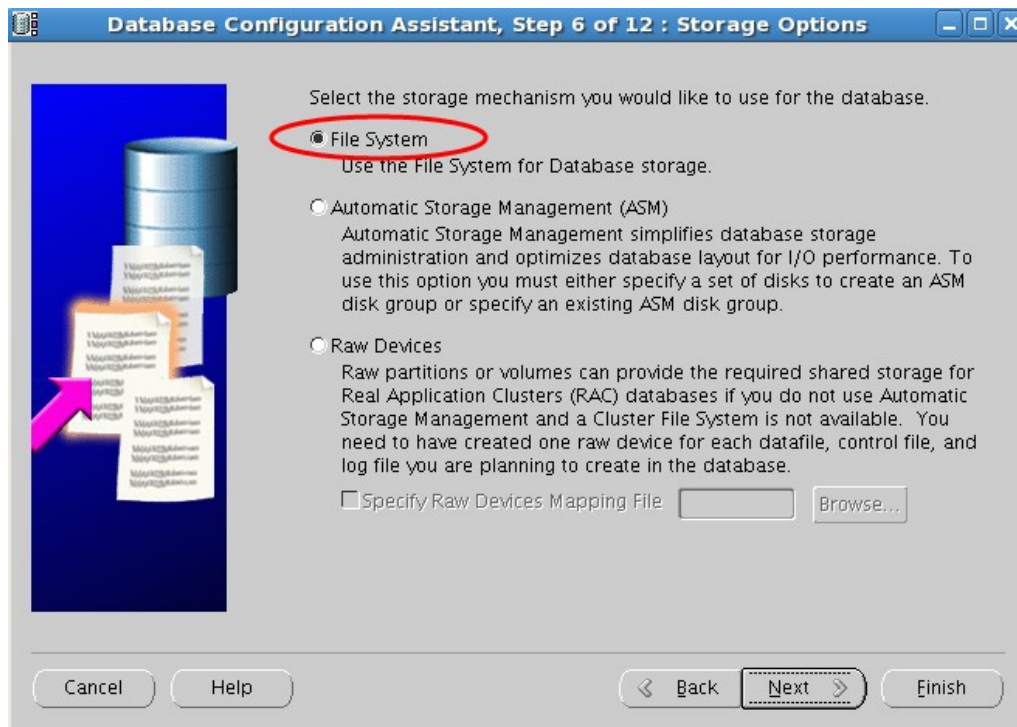
☒ **Use the Same Password for All Accounts**

Password:

Confirm Password:

☐ Use Different Passwords

User Name	Password	Confirm Password
SYS		
SYSTEM		



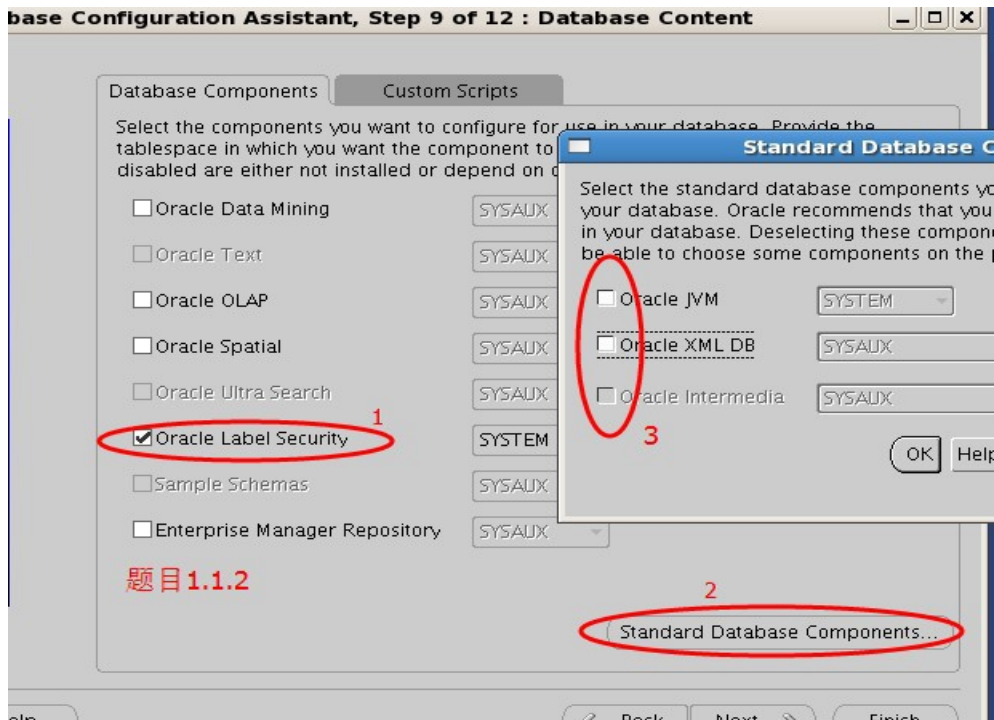
勾选 Label Security 组件

勾选题目要求的选项

这里需要注意一下，因题目 1.1.2 要求只有 Oracle Label Security 组件是 EMREP 数据库必须的。

所以这里只保留 Oracle Label Security 组件。

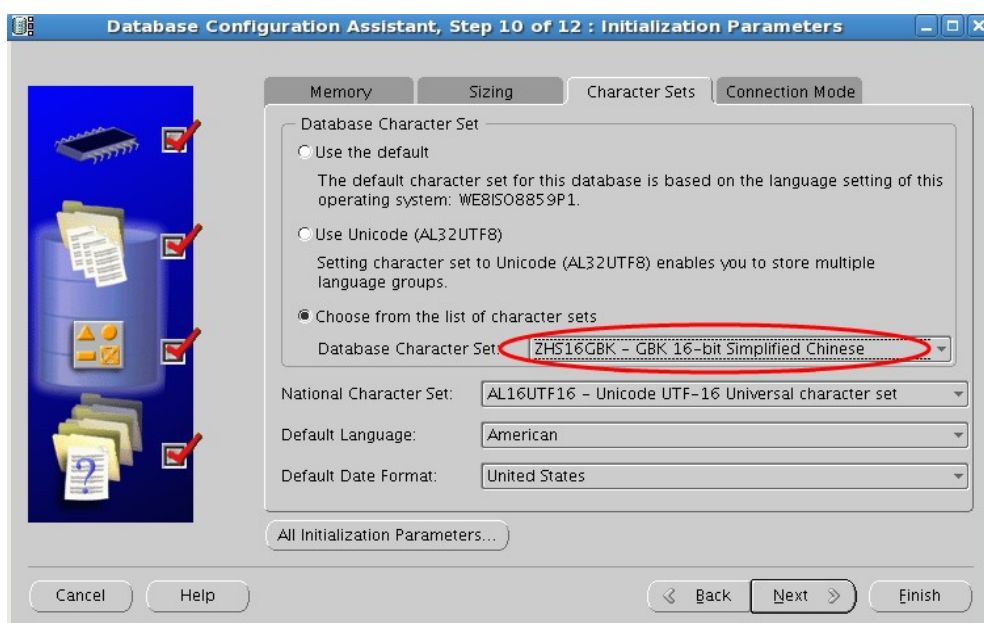
勾掉其他所有组件，包括 Standard Database Components 里的选项。



修改字符集

一路默认安装，注意字符集需要与PROD数据库保持一致。可通过如下命令查询prod数据库的字符集。

SQL> `select parameter,value from v$nls_parameters;`



为EMREP数据库创建监听

直接netca创建默认端口的监听，没有什么需要注意的地方。

启动监听和数据库

2.GC 的安装配置

产品功能介绍：

Oracle10g OEM Grid Control 是 Oracle 公司提供的一种企业级数据库（数据库节点数在几十台以上的规模）部署，管理和监控的解决方案，较之 10g 之前的 oem 有了本质的区别，它基本上重写了所有的代码，变成了一种基于 web 的架构，使用户无需再在客户机上安装笨重的 java 控制台了。在管理上采用了企业级的 Oracle10g oem grid control 来进行日常的管理和维护。在使用过程中发现它的功能比想象中强大的多，管理的集成性作的也非常好。

设置环境变量

```
export ORACLE_BASE=/u01/app/oracle
export ORACLE_SID=EMREP
export ORACLE_HOME=/u01/app/oracle/product/OracleHomes/db10g
export AGENT_HOME=/u01/app/oracle/product/OracleHomes/agent10g
export OMS_HOME=/u01/app/oracle/product/OracleHomes/oms10g
```

```
[oracle@rac1 Linux_Grid_Control_full_102010_disk1]$ ./runInstaller
Starting Oracle Universal Installer...
```

Checking installer requirements...

Checking operating system version: must be redhat-3, redhat-4 or SuSE-9
Passed

All installer requirements met.

```
Preparing to launch Oracle Universal Installer from /tmp/OraInstall2010-05-31_03-13-41AM. Please wait ...[oracle@rac1
Linux_Grid_Control_full_102010_disk1]$
```

参考文档：

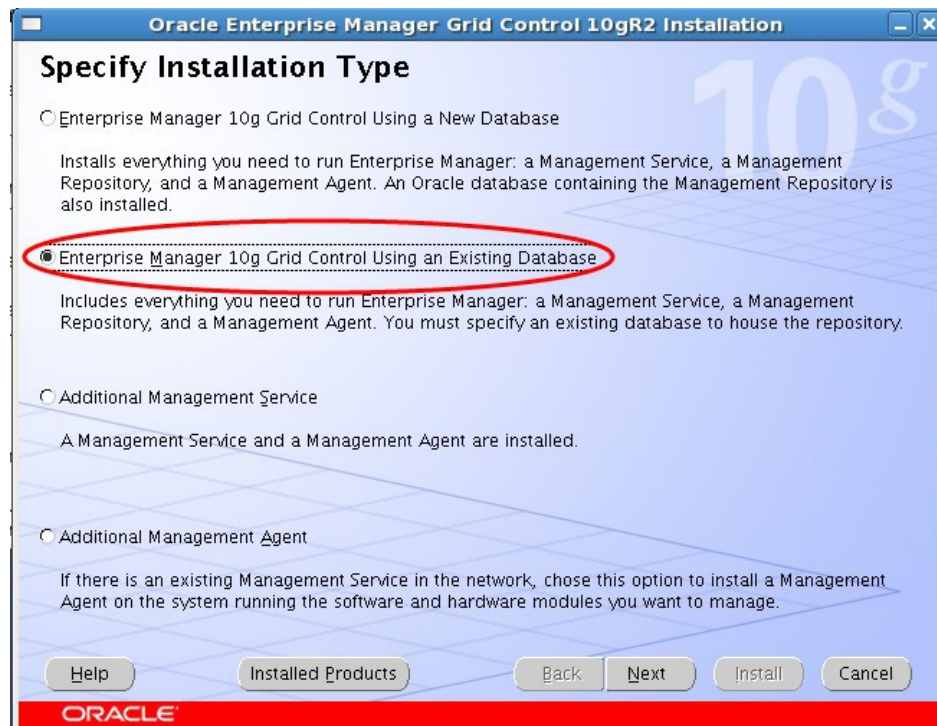
Oracle® Enterprise Manager Grid Control Quick Installation Guide for Linux x86
10g Release 2 (10.2)
Part Number B28091-01

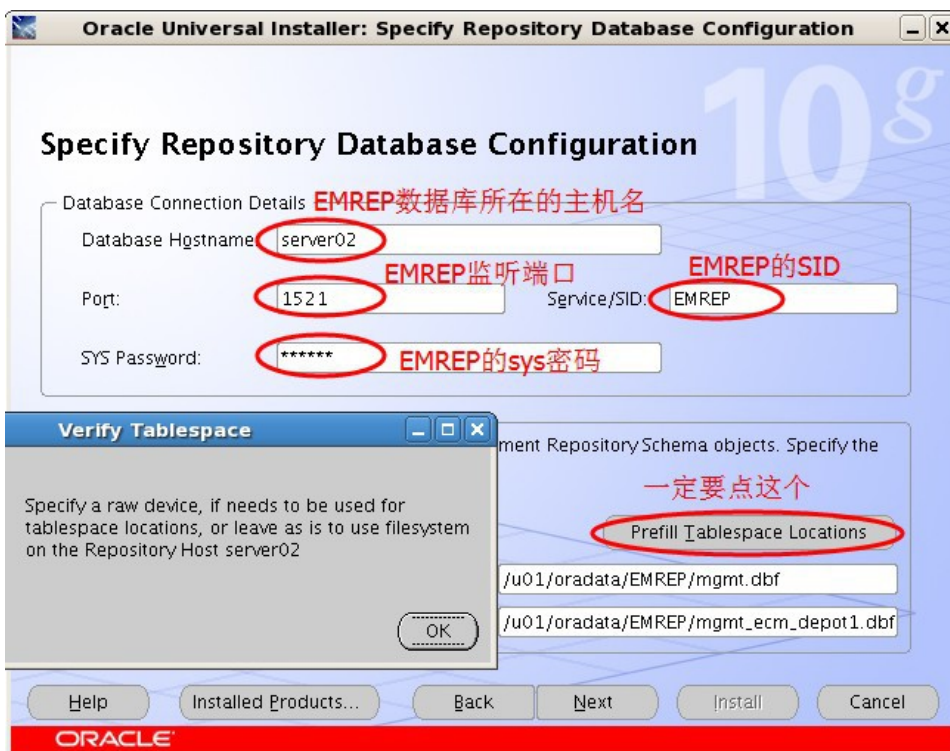
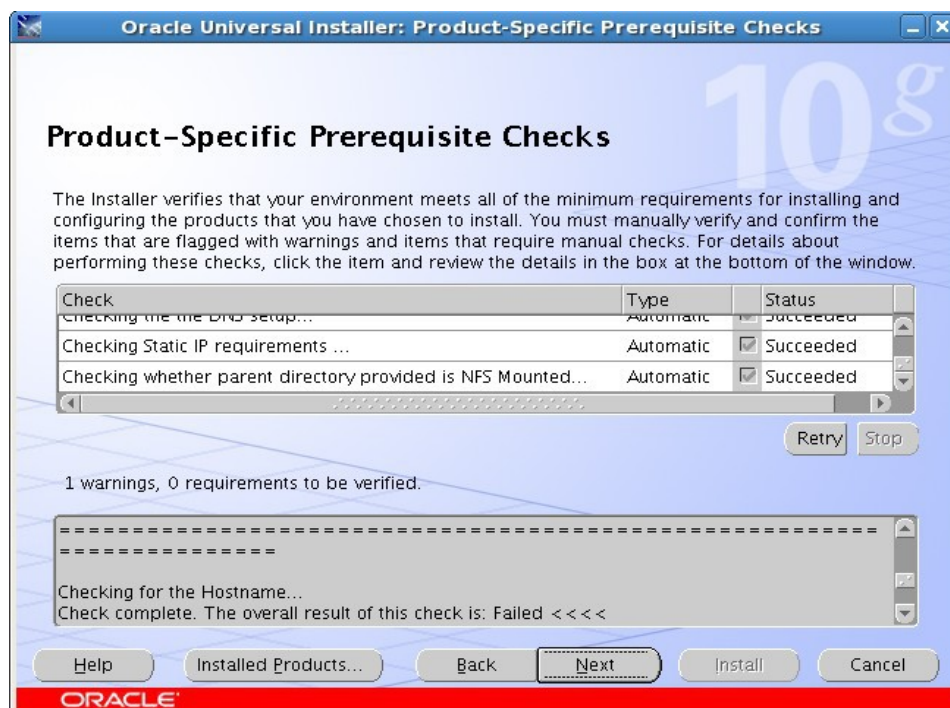
注意：在指定安装类型时，要选择“使用已存在的数据库”。

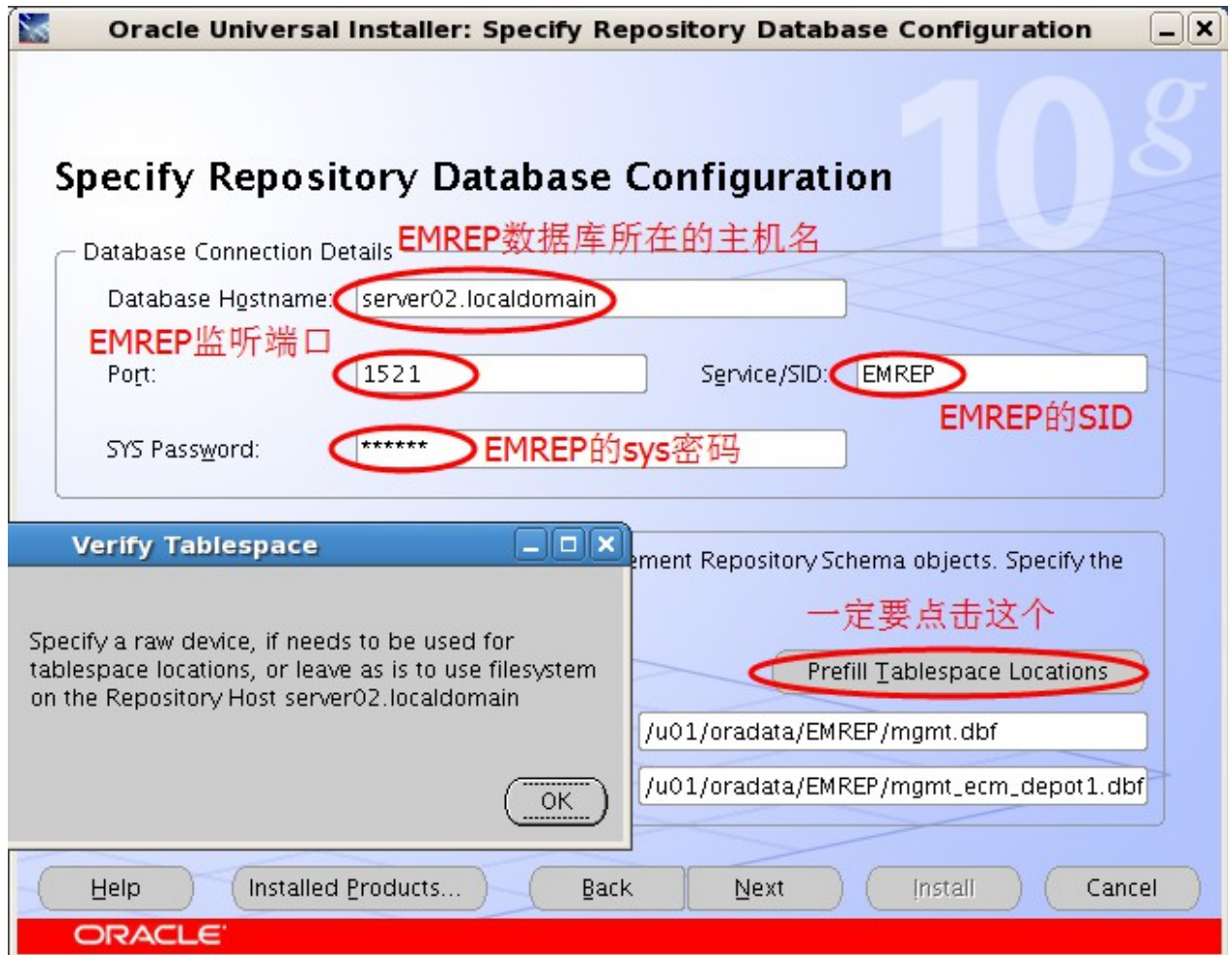
```
[oracle@server02 Disk1]$ pwd
```

```
/home/oracle/Disk1
```

```
[oracle@server02 Disk1]$ ./runInstaller
```







点击下一步的时候，会弹出部分出错提示，按照提示，来对数据库做调整即可。

几个参数

job_queue_processes=15

aq_tm_processes=1

session_cached_cursors=200

可选最好：undo_retention 大点。

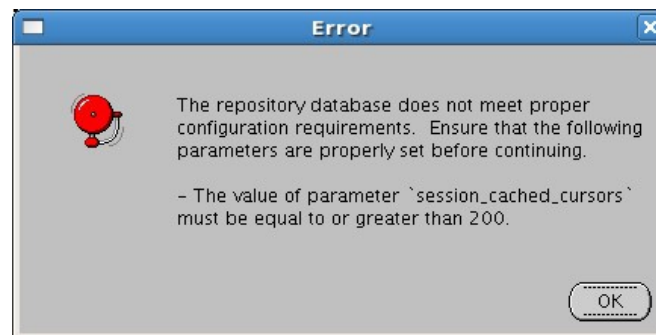
执行以下脚本：

\$ORACLE_HOME/rdbms/admin/dbmspool.sql



```
SQL> alter system set dispatchers='' scope=both;
```

System altered.



修改session_cached_cursors参数

```
SQL> alter system set session_cached_cursors=600 scope=spfile;
```

System altered.

修改后，重启数据库，使参数生效，重启后，继续点击GC安装界面的OK，下一步。不需要退出安装界面



按要求，执行DBMS_SHARED_POOL包

```
SQL> @?/rdbms/admin/dbmspool
```

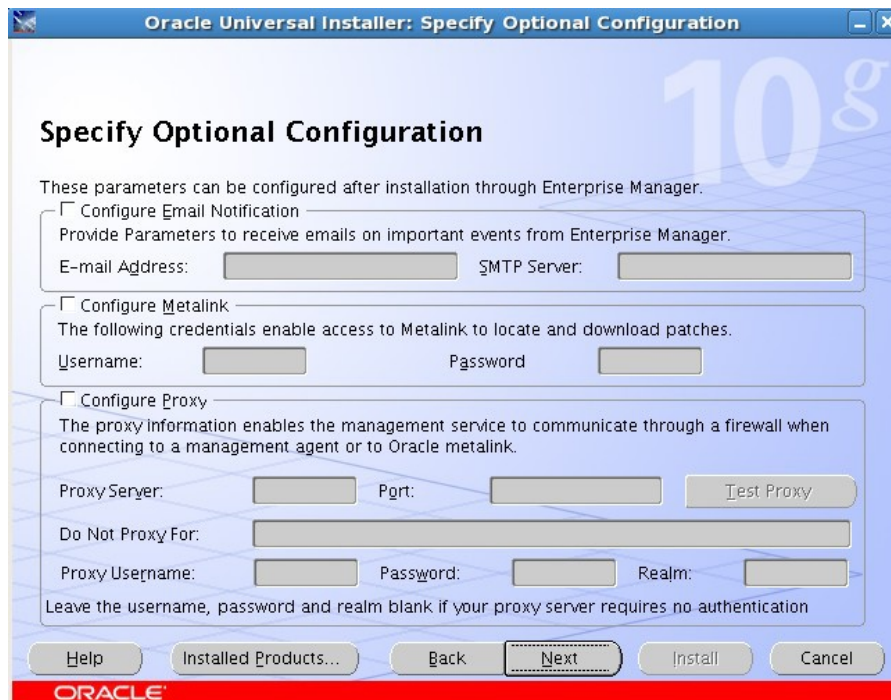
Package created.

Grant succeeded.

View created.

Package body created.

继续点击下一步。



Oracle Universal Installer: Specify Optional Configuration

Specify Optional Configuration

These parameters can be configured after installation through Enterprise Manager.

☐ Configure Email Notification
Provide Parameters to receive emails on important events from Enterprise Manager.
E-mail Address: SMTP Server:

☐ Configure Metalink
The following credentials enable access to Metalink to locate and download patches.
Username: Password:

☐ Configure Proxy
The proxy information enables the management service to communicate through a firewall when connecting to a management agent or to Oracle metalink.
Proxy Server: Port:
Do Not Proxy For:
Proxy Username: Password: Realm:
Leave the username, password and realm blank if your proxy server requires no authentication

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直接下一步。Management Service Security密码必须为以字母开头，包含数字且至少5位的字符串。这里设置为oracle2014



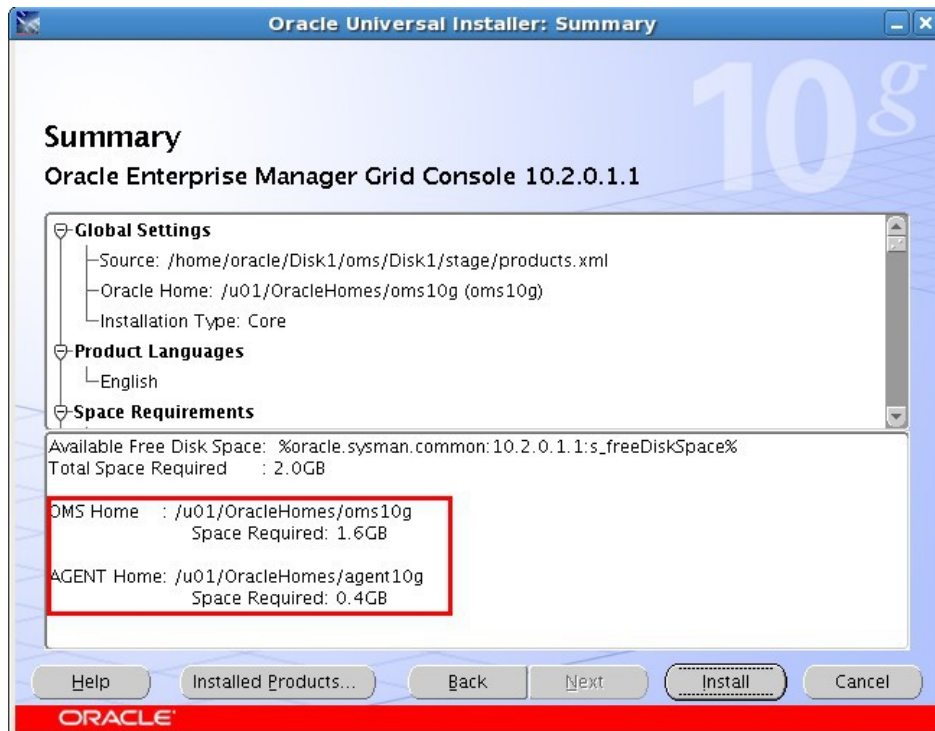
Oracle Universal Installer: Specify Passwords

Specify Passwords

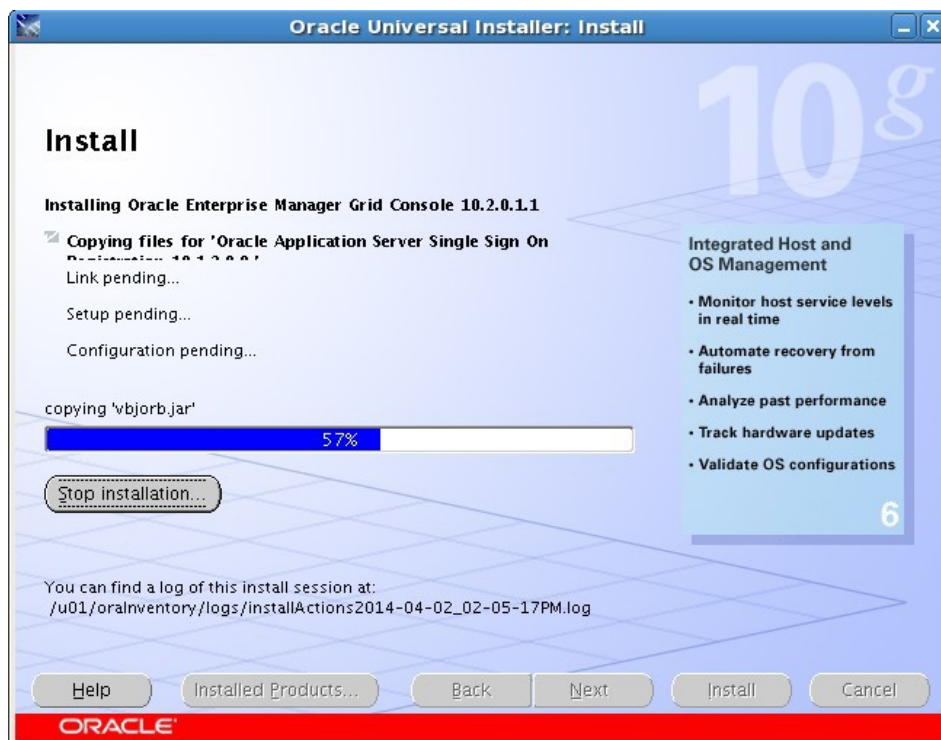
Management Service Security
This password must be supplied by agents desiring Secure Communication with the Management Service.
此密码必须以字母开头，包含数字且至少5位的字符串。
Registration Password: Confirm Password:
☒ Require Secure Communications

SYSMAN Password
The SYSMAN account will be used as a Super Administrator for Enterprise Manager.
此密码必须以字母开头，包含数字且至少5位的字符串。
Password: Confirm Password:

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点击install，即开始执行gc的安装。



安装的过程中，因为系统是OEL5版本，因此会要求跑一个OMS的bin目录下的脚本opmnctl startall



错误 1 解决 The OPMN Process Manager failed

出此错误提示，进入/u01/app/oracle/OracleHomes/oms10g/opmn/logs目录，查看ipm.log文件。

会提示

14/03/07 19:21:06 [4] PM state file does not exist:
/u01/app/oracle/OraHomes/oms10g/opmn/logs/states/.opmndat

可以直接用touch创建一个空文件即可。如下

```
touch /u01/app/oracle/OracleHomes/oms10g/opmn/logs/states/.opmndat
```

继续手动执行opmnctl startall

```
[oracle@server02 bin]$ pwd
/u01/app/oracle/OracleHomes/oms10g/opmn/bin
[oracle@server02 bin]$ ./opmnctl startall
opmnctl: starting opmn and all managed processes...
=====
=====
opmn id=server02:6200
  3 of 4 processes started.
ias-instance id=EnterpriseManager0.server02
+++++
+++++
ias-component/process-type/process-set:
  HTTP_Server/HTTP_Server/HTTP_Server
```

Error

--> Process (pid=15102)

failed to start a managed process after the maximum retry limit

Log:

/u01/app/oracle/OracleHomes/oms10g/opmn/logs/HTTP_Server~1

错误 2 解决 error while loading shared libraries:libdb.so.2

如果`opmnctl startall`报错，继续查看HTTP_Server~1文件，文件内容如下，提示没有libdb.so.2文件。

```
[oracle@server02 logs]$ more HTTP_Server~1
```

14/03/07 18:40:03 Start process

/u01/app/oracle/OracleHomes/oms10g/Apache/Apache/bin/apachectl

start: execing httpd

/u01/app/oracle/OracleHomes/oms10g/Apache/Apache/bin/httpd: error
while loading **shared libraries: libdb.so.2**: cannot open shared object file: No
such file or directory

安装如下两个软件包，并创建符号链接解决此问题：

```
rpm -ivh zlib-devel-1.2.3-3.i386.rpm
```

```
rpm -ivh libpng-devel-1.2.10-7.1.el5_3.2.i386.rpm
```

```
[root@server02 Server]# ln -s /usr/lib/libgdbm.so.2.0.0 /usr/lib/libdb.so.2
```

重新执行opmnctl startall

```
[oracle@server02 bin]$ ./opmnctl startall
```

opmnctl: starting opmn and all managed processes...

```
[oracle@server02 bin]$ ./opmnctl status
```

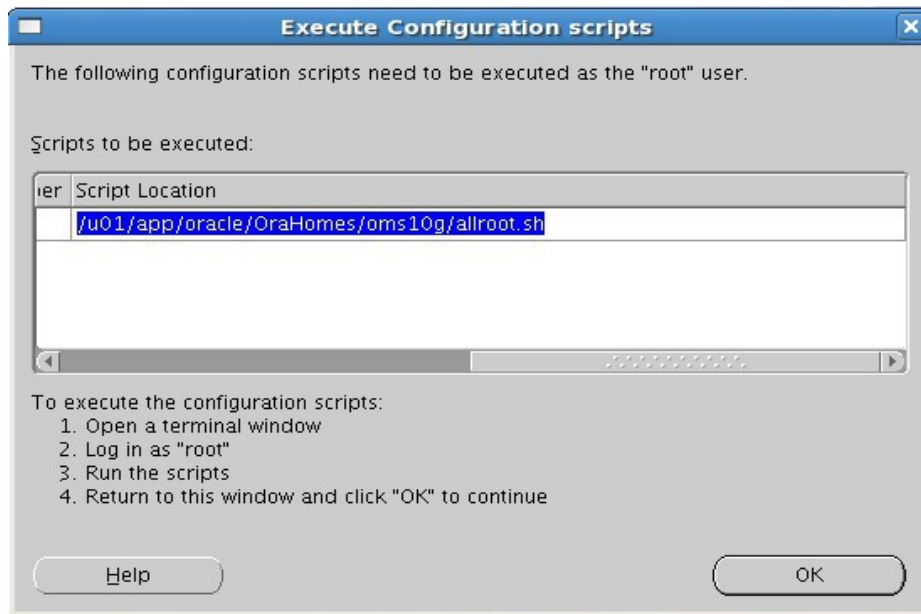
Processes in Instance: EnterpriseManager0.server02.localdomain

ias-component	process-type	pid	status
DSA	DSA	N/A	Down
HTTP_Server	HTTP_Server	15254	Alive
LogLoader	logloaderd	N/A	Down
dcm-daemon	dcm-daemon	N/A	Down
OC4J	home	15096	Alive
WebCache	WebCache	15106	Alive
WebCache	WebCacheAdmin	15101	Alive

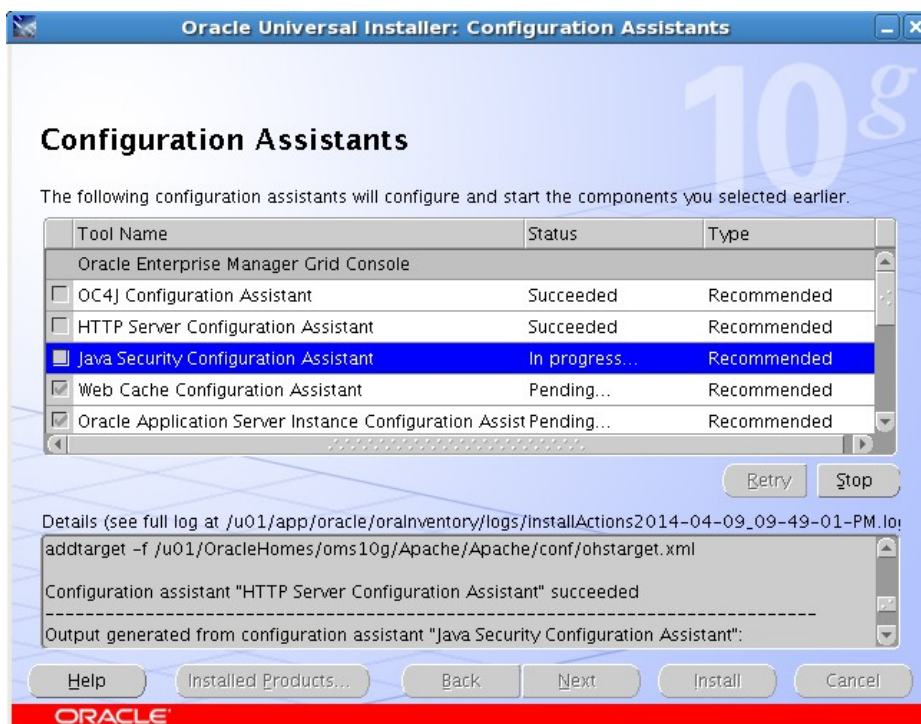
执行`opmnctl startall`后，点击Continue（继续），注意是点击继续，不要点重试。



以root用户执行下图的脚本，执行脚本的过程中一路回车即可。



执行完脚本后，点击上图的OK即可。




点完OK，gc的配置助手(configuration assistants)开始配置相关组件，如果遇到关于OC4J的OUI-25031错误，可手动重启opmn组件。



如果见到以下界面就悲催了：

2649

Error



OUI-25031:Some of the configuration assistants failed. It is strongly recommended that you retry the configuration assistants at this time. Not successfully running any "Recommended" assistants means your system will not be correctly configured.

1. Check the Details panel on the Configuration Assistant Screen to see the errors resulting in the failures.
2. Fix the errors causing these failures.
3. Select the failed assistants and click the 'Retry' button to retry them.

OK

<input type="checkbox"/>	DCM Repository Backup Assistant	Succeeded	Recommended
<input type="checkbox"/>	EM Technology Stack Upgrade	Succeeded	Optional
<input checked="" type="checkbox"/>	OMS Configuration	Failed (see details...)	Recommended

Oracle Management Agent

Retry

Stop

Details (see full log at /u01/app/oralInventory/logs/installActions2014-03-04_03-30-10-PM.log):

The "/home/oracle/OracleHomes/agent10g/cfgtoollogs/configToolFailedCommands" script contains all commands that failed, were skipped or were cancelled. This file may be used to run these configuration assistants outside of OUI. Note that you may have to update this script with passwords (if any) before executing the same.

Help

Installed Products...

Back

Next

Install

Cancel

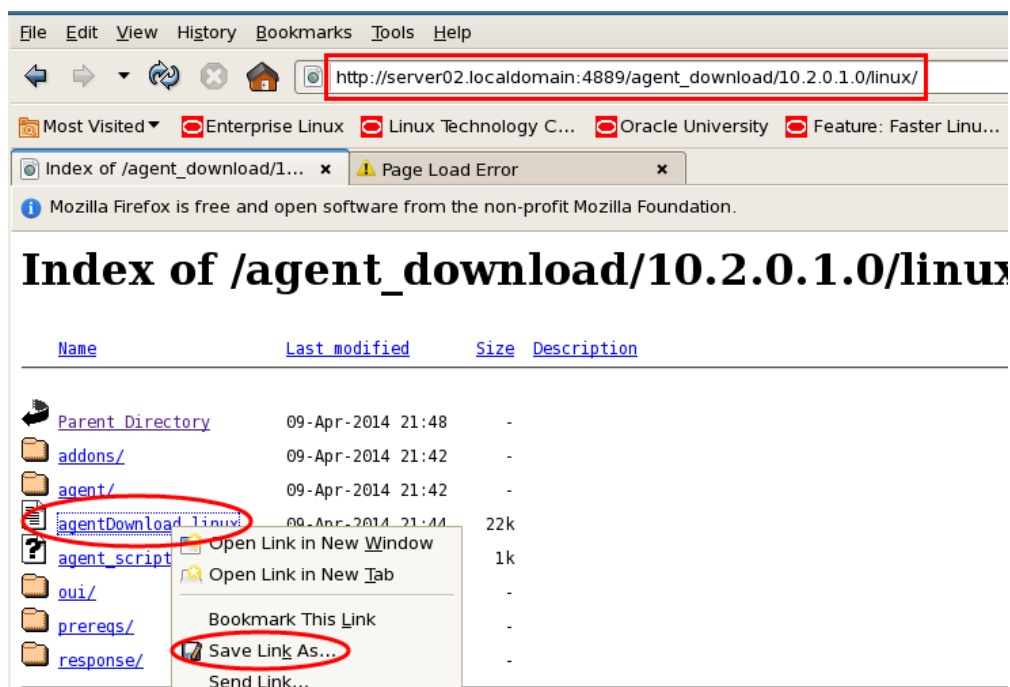
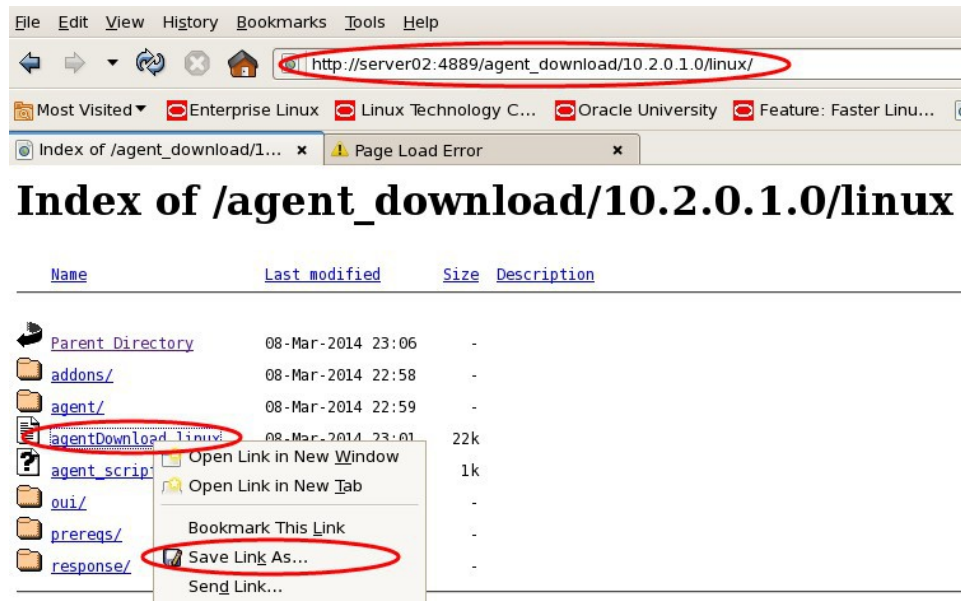
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3.部署 AGENT

在PROD主机打开firefox浏览器，输入如下地址

http://**EMREP 数据库主机名或IP:GC端口号**/agent_download/10.2.0.1.0/linux，如：

http://202.202.202.22:4889/agent_download/10.2.0.1.0/linux



下载agent_download脚本后，复制到/home/oracle/下，并修改权限(22K的文件)

```
[oracle@server01 Desktop]$ pwd
/home/oracle/Desktop
[oracle@server01 Desktop]$ ls
agentDownload.linux
[oracle@server01 ~]$ chmod 777 agentDownload.linux
[oracle@server01 Desktop]$ ./agentDownload.linux -b /u01/app/oracle
```

会提示要求以root用户执行一个脚本root.sh

```
End of install phases.(Wednesday, April 9, 2014 10:27:27 PM CST)
WARNING:
The following configuration scripts need to be executed as the "root" user.
#!/bin/sh
#Root script to run
/u01/agent10g/root.sh
To execute the configuration scripts:
  1. Open a terminal window
  2. Log in as "root"
  3. Run the scripts
Starting to execute configuration assistants
```

错误 3 解决 unable to resolve host address

如果报错如下

```
[oracle@server01 ~]$ ./agentDownload.linux -b /u01/app/oracle
agentDownload.linux invoked on Wed Apr  2 15:29:06 CST 2014 with
Arguments "-b /u01/app/oracle"
Platform=Linux, OS=linux
GetPlatform:returned=0, and os is set to: linux, platform=Linux
Creating /home/oracle/agentDownload10.2.0.1.00Ui ...
LogFile      for      this      Download      can      be      found      at:
"/home/oracle/agentDownload10.2.0.1.00Ui/agentDownload.linux04021415
2906.log"
Running on Selected Platform: Linux
Installer location: /home/oracle/agentDownload10.2.0.1.00Ui
Downloading Agent install response file ...
--2014-04-02                                     15:29:06--
```



```
http://server02.localdomain:4889/agent_download/10.2.0.1.0/agent_download.rsp
```

```
Resolving server02... failed: Temporary failure in name resolution.
```

```
wget: unable to resolve host address `server02'
```

```
Finished Downloading with Status=1
```

```
Command failed: /usr/bin/wget --dot-style=mega --verbose --tries=5
```

```
http://server02.localdomain:4889/agent_download/10.2.0.1.0/agent_download.rsp
```

```
Removing the copied stuff.....
```

```
Log name of installation can be found at:
"/u01/app/oracle/product/10g/db_1/agentDownload.linux040214152906.log"
```

则需要将server02的地址解析添加到server01服务器的/etc/hosts文件中，如下

```
# Do not remove the following line, or various programs
# that require network functionality will fail.
127.0.0.1    localhost.localdomain localhost
#:::1       localhost6.localdomain6 localhost6
202.202.202.21 server01.localdomain server01
202.202.202.22 server02.localdomain server02
```

另外，server02的/etc/hosts文件也需要添加server01和server02的主机名解析记录，否则在注册数据库到GC中时，可能会报如下错误。

```
oracle.sysman.emSDK.emd.comm.CommException
```

错误 4 解决 Can't find the jar utility

如果报Can't find the jar utility. Add jar to your PATH and try again.错误，则是因为JDK路径设置的问题，可向/home/oracle/.bash_profile追加JDK方面的环境变量。

```
export JAVA_HOME=$ORACLE_HOME/jdk
export PATH=$JAVA_HOME/bin:$ORACLE_HOME/bin:/usr/sbin:$PATH
```

手动启停gc包含oms的启停、opmnctl的启停、agent的启停

GC端server02执行

```
[oracle@server02 agent10g]$ /u01/OracleHomes/oms10g/bin/emctl start oms
[oracle@server02 agent10g]$ /u01/OracleHomes/oms10g/bin/emctl stop oms
[oracle@server02 agent10g]$ /u01/OracleHomes/oms10g/bin/emctl status oms
```

```
[oracle@server02 agent10g]$ /u01/OracleHomes/agent10g/bin/emctl start agent
[oracle@server02 agent10g]$ /u01/OracleHomes/agent10g/bin/emctl stop agent
[oracle@server02 agent10g]$ /u01/OracleHomes/agent10g/bin/emctl status agent
```

```
[oracle@server02 bin]$ /u01/OracleHomes/oms10g/opmn/bin/opmnctl startall
[oracle@server02 bin]$ /u01/OracleHomes/oms10g/opmn/bin/opmnctl stopall
[oracle@server02 bin]$ /u01/OracleHomes/oms10g/opmn/bin/opmnctl status
```

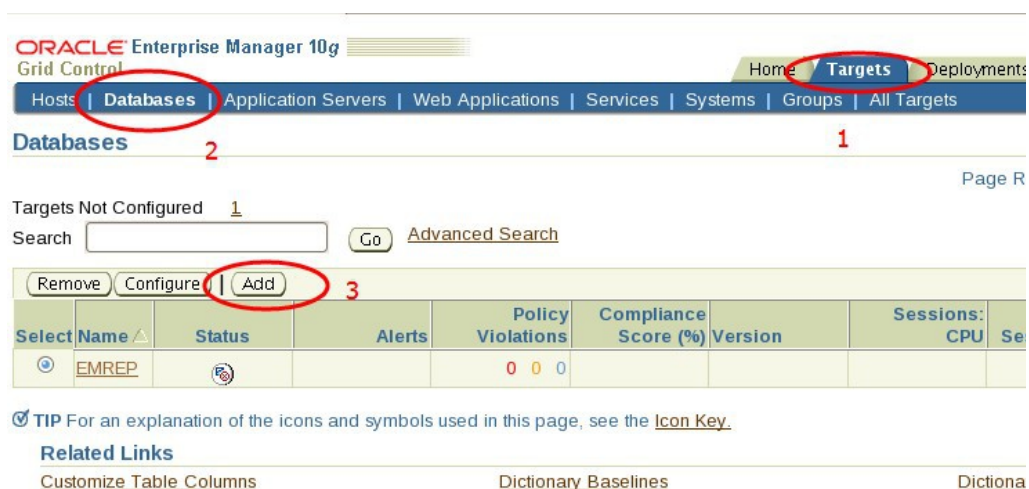
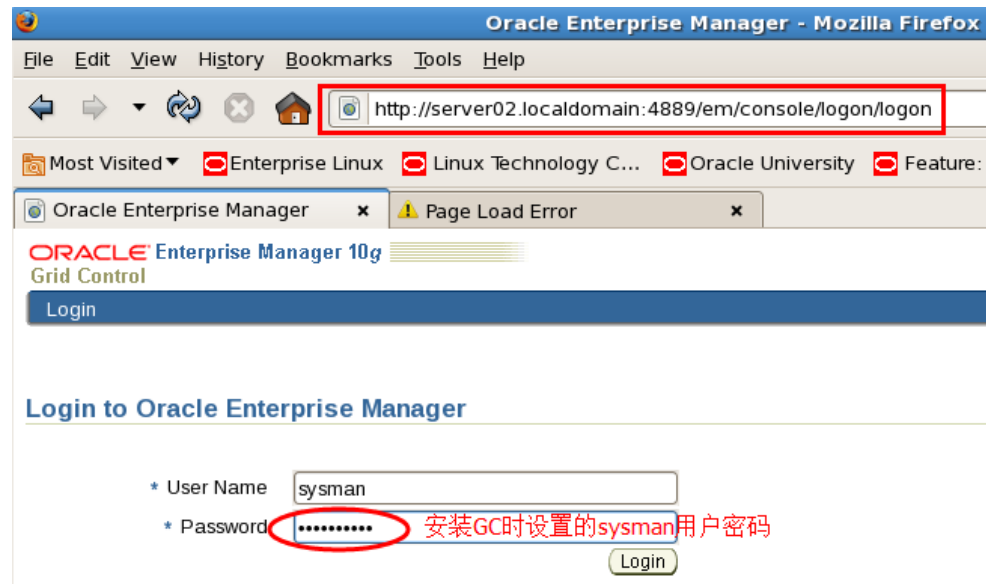
AGENT端server01执行

```
[oracle@server01 bin]$ /u01/agent10g/agent10g/bin/emctl stop agent
[oracle@server01 bin]$ /u01/agent10g/agent10g/bin/emctl start agent
[oracle@server01 bin]$ /u01/agent10g/agent10g/bin/emctl status agent
```

注册PROD数据库到GC中

安装完GC和agent之后，PROD数据库并未注册到GC中，需要手动注册。在考试环境中需要我们手动把PROD数据库添加到GC里面。

gc登陆地址<http://server02.localdomain:4889/em/>



输入PROD数据库的主机名，点击Continue按钮。

ORACLE Enterprise Manager 10g
Grid Control

Home Targets Deployments Alerts Policies Jobs

Enterprise Manager Configuration | Management Services and Repository | Agents

Cancel Continue

Add Database Instance Target: Specify Host

In order to add targets to be monitored by Enterprise Manager, you must first specify the host on which those targets reside. Type the host name or click the icon to select the host.

* Host server01.localdomain

☒ TIP If the host you specify is a member of a cluster target, the process will allow you to add cluster database targets on the cluster. PROD数据库的主机名

Overview

This process allows you to add databases, listeners, and Automated Storage Managers (ASM) as monitored targets. A monitored target is an entity that you want to monitor and administer using Enterprise Manager. Enterprise Manager will search for targets of these types on the host that you specify.

Cancel Continue

Home | Targets | Deployments | Alerts | Policies | Jobs | Reports | Setup | Preferences | Help | Logout

点击Manully Add，手动添加。

ORACLE Enterprise Manager 10g
Grid Control

Home Targets Deployments Alerts Policies Jobs

Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | All Targets

Targets Discovered on Host: server01.localdomain

Cancel OK

Databases

The following databases have been discovered on this host. A database that has not been discovered can be added manually. A database may be further configured by clicking the associated "Configure" button.

Select Name	Configure	Metrics
No items found		
<u>Manually Add</u>		

☒ TIP Configuration changes will only take effect for those databases that are added as targets.

Listeners

The following listeners have been discovered on this host.

Select Name	Listener Name	Oracle Home	Port	Listener Directory
No items found				

输入PROD数据库的ORACLE_HOME路径、sys用户名/密码、监听端口及SID名。
注意：这里如果使用PROD数据库的db snmp用户，则需要将PROD数据库的db snmp用户解锁。

SQL> alter user db snmp identified by oracle2014 account unlock;

User altered.

● ○ ○ ○ ○
 Properties Install Packages Credentials Parameters Review

Configure Database Instance: Properties

* Name

Type **Database Instance** Test Connection

Name	Value
Oracle home path	/u01/app/oracle/product/10g/db_1
Monitor Username	sys
Monitor Password	*****
Role	SYSDBA
Listener Machine Name	server01.localdomain
Port	1526
Database SID	PROD

Cancel Step 1 of 5 Next

设置完毕后，点击测试连接，测试成功后，点下一步。

ORACLE Enterprise Manager 10g Setup Prefe

Grid Control Home **Targets** Deployments Alerts Policies j

Hosts | **Databases** | Application Servers | Web Applications | Services | Systems | Groups | All Targets

Cancel Back Step 5 of 5 OK

○ ○ ○ ○ ●
 Properties Install Packages Credentials Parameters **Review**

Configure Database Instance: Review

Review the changes made below for this database. Select "OK" when you are done, or select "Back" to edit the changes.

Name **PROD**

Properties

Name	Value
Oracle home path	/u01/app/oracle/product/10g/db_1
Monitor Username	sys
Monitor Password	*****
Role	SYSDBA
Listener Machine Name	server01.localdomain
Port	1526
Database SID	PROD

☒ **TIP** Configuration changes will only take effect for those databases that are added as targets.

Install Monitor Objects

Skip these steps. These metrics will remain disabled.

点击OK



Targets Discovered on Host: server01.localdomain

[Cancel](#) [OK](#)

Databases

The following databases have been discovered on this host. A database that has not been discovered can be added manually. A database may be further configured by clicking the associated "Configure" button.

[Select All](#) | [Select None](#)

Select Name	Configure	Metrics
<input checked="" type="checkbox"/> PROD		

[Manually Add](#)

☒ **TIP** Configuration changes will only take effect for those databases that are added as targets.

Listeners

The following listeners have been discovered on this host.

Select Name	Listener Name	Oracle Home	Port	Listener Directory
No items found				

[OK](#)

Database Instance Configuration Result

PROD:

Properties for instance **PROD** have been updated.



[OK](#)

Databases

Page Refreshed **Apr 9, 2014 10:54:18 PM CST** 

Targets Not Configured **1**

Search [Go](#) [Advanced Search](#)

Remove	Configure	Add								
Select	Name	Status	Alerts	Policy Violations	Compliance Score (%)	Version	Sessions: CPU	Sessions: I/O	Sessions: Other	Instance CPU (%)
<input checked="" type="radio"/>	EMREP			0 0 0						
<input type="radio"/>	PROD		0 0	1 3 0	83	10.2.0.1.0				

☒ **TIP** For an explanation of the icons and symbols used in this page, see the [Icon Key](#).

Related Links

[Customize Table Columns](#)
[Execute SQL](#)

[Dictionary Baselines](#)
[Recovery Catalogs](#)

[Dictionary Comparisons](#)

至此，PROD数据库已注册到GC中。

4.创建超级管理员 EMADMIN

setup-> Administrators->Create

gc的登录用户，不能用一般的create user来建立，要用mgmt_user包来建立，但是更好的方式，是用gc界面中的setup-Administrators来建立：创建GC超级用户EMADMIN，密码EMADMIN

点击右上角的setup

ORACLE Enterprise Manager 10g
Grid Control

Home Targets Deployments Alerts Policies Jobs Reports

Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | All Targets

Databases

Page Refreshed Mar 9, 2014 11:40:20 AM CST

Targets Not Configured 1

Search Go Advanced Search

Remove Configure Add

Select	Name	Status	Alerts	Policy Violations	Compliance Score (%)	Version	Sessions: CPU	Sessions: I/O	Sessions: Other	Instance CPU (%)
<input checked="" type="radio"/>	EMREP			0 0 0						
<input type="radio"/>	PROD		0 0	0 0 0		10.2.0.1.0				

选择Administrators，点击Create。

Enterprise Manager Configuration | Management Services and Repository | Agents

Overview of Setup

Roles

Administrators

Notification Methods

Patching Setup

Blackouts

Registration Passwords

Management Pack Access

Administrators

Administrators are database users defined in the Management Repository who can login to Enterprise Manager to perform management tasks. The breadth of management tasks available in Enterprise Manager depends on the privileges and roles assigned to the administrators.

Page Refreshed

Search Go

Create Like View Edit Subscribe to Rules Delete Create

Select	Name	Access
<input checked="" type="radio"/>	SYS	Super Administrator
<input type="radio"/>	SYSMAN	Repository Owner
<input type="radio"/>	SYSTEM	Super Administrator

设置超级管理员的用户名和密码，并勾选Super Administrator。

ORACLE Enterprise Manager 10g
Grid Control

Home Targets Deployments Alerts Policies Jobs Reports

Enterprise Manager Configuration | Management Services and Repository | Agents

Properties Roles System Privileges Targets Target Privileges Review

Create Administrator: Properties

Cancel Step 1 of 6 Next Review

* Name **EMADMIN**

* Password

* Confirm Password

E-mail Address

Specify one or more e-mail addresses separated by a comma or space. If you are entering these for the first time, they will be used to create a default 24x7 notification schedule for this Administrator.

☒ Super Administrator

Cancel Step 1 of 6 Next Review

点下一步，完成即可。

ORACLE Enterprise Manager 10g
Grid Control

Home Targets Deployments Alerts Policies Jobs Report

Enterprise Manager Configuration | Management Services and Repository | Agents

Overview of Setup

Roles

Administrators

Notification Methods

Patching Setup

Blackouts

Registration Passwords

Management Pack Access

Monitoring Templates

Corrective Action Library

Management

Confirmation

Administrator EMADMIN was created successfully

Administrators

Administrators are database users defined in the Management Repository who can login to Enterprise Manager to perform management tasks. The breadth of management tasks available in Enterprise Manager depends on the privileges and roles assigned to the administrators.

Page Refreshed Mar 9, 2014 11:46:33 AM CST Refresh

Search Go

Create Like View Edit Subscribe to Rules Delete Create

Select Name	Access
<input checked="" type="radio"/> EMADMIN	Super Administrator
<input type="radio"/> SYS	Super Administrator
<input type="radio"/> SYSMAN	Repository Owner
<input type="radio"/> SYSTEM	Super Administrator

5.使用 GC

5.1 GC 修改 PGA

修改PROD的PGA_AGGREGATE_TARGET为500MB，当实例重启后，PGA又恢复原值。使用GC修改，只改内存，不改SPFILE文件。

ORACLE Enterprise Manager 10g Grid Control

Home **Targets** Deployments Alerts Policies Jobs Reports

Hosts **Databases** Application Servers Web Applications Services Systems Groups All Targets

Databases

Page Refreshed Mar 9, 2014 11:53:39 AM CST

Search Go Advanced Search

Remove Configure Add

Select	Name	Status	Alerts	Policy Violations	Compliance Score (%)	Version	Sessions: CPU	Sessions: I/O	Sessions: Other	Instance CPU (%)
<input type="radio"/>	EMREP		0 0	0 0 0		10.2.0.1.0				
<input checked="" type="radio"/>	PROD		0 1	15 11 2	88	10.2.0.1.0	01	0	0	62

TIP For an explanation of the icons and symbols used in this page, see the [Icon Key](#).

Related Links

[Customize Table Columns](#)
[Dictionary Baselines](#)
[Dictionary Comparisons](#)
[Execute SQL](#)
[Recovery Catalogs](#)

Home | Targets | Deployments | Alerts | Policies | Jobs | Reports | Setup | Preferences | Help | Logout

进入PROD数据库的管理Administration界面，点击所有参数。

ORACLE Enterprise Manager 10g Grid Control

Home **Targets** Deployments Alerts Policies Jobs Reports

Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | All Targets

Database Instance: PROD

Home Performance **Administration** Maintenance

The Administration tab displays links that allow you to administer database objects and initiate database operations inside an Oracle database. The Maintenance tab displays links that provide functions that control the flow of data between or outside Oracle database.

Database Administration

Storage Control Files Tablespaces Temporary Tablespace Groups Datafiles Rollback Segments Redo Log Groups Archive Logs	Database Configuration Memory Parameters Undo Management All Initialization Parameters Database Feature Usage	Oracle Scheduler Jobs Chains Schedules Programs Job Classes Windows Window Groups Global Attributes
Statistics Management Automatic Workload Repository Manage Optimizer Statistics	Change Database Migrate to ASM Convert to Cluster Database Make Tablespace Locally Managed	Resource Manager Monitors Consumer Groups Consumer Group Mappings Plans

输入PROD数据库的账户/密码。

ORACLE Enterprise Manager 10g Grid Control

Setup Preferences Help

Home Targets Deployments Alerts Policies Jobs Reports

Database Login

* Username:

* Password:

Database: **PROD**

* Connect As:

☒ Save as Preferred Credential

Cancel Login

搜索PGA。设置为500M后，点击右下角的Apply应用。

ORACLE Enterprise Manager 10g
Grid Control

Home Targets Deployments Alerts Policies Jobs Reports

Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | All Targets

Database Instance: PROD >

Execute On Multiple Databases Show SQL Revert **Apply** 5

Initialization Parameters

Current SPFile 1

The parameter values listed here are currently used by the running instance(s). You can change static parameters in SPFile mode.

Name 2: pga Basic: All Modified: All Dynamic: All Category: All Go 3

Filter on a name or partial name

☐ Apply changes in current running instance(s) mode to SPFile. For static parameters, you must restart the database.

Name	Help	Revisions	Value	Comments	Type	Basic	Modif
pga_aggregate_target			500M 4		Big Integer	✓	

注意：这里不要勾选spfile选项。

5.2 修改 MTTR 实例恢复时间

修改 MTTR 时间为5分钟，使用 GC 修改 fast_start_mttr_target 参数，内存、SPFILE文件都改。

ORACLE Enterprise Manager 10g
Grid Control

Home Targets Deployments Alerts Policies Jobs Reports

Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | All Targets

Database Instance: PROD >

Execute On Multiple Databases Show SQL Revert **Apply** 5

Initialization Parameters

Current SPFile

The parameter values listed here are currently used by the running instance(s). You can change static parameters in SPFile mode.

Name 1: mttr 2 Go

Filter on a name or partial name

☒ Apply changes in current running instance(s) mode to SPFile. For static parameters, you must restart the database. 3 修改应用到spfile

Name	Help	Revisions	Value	Comments	Type	Basic	Modif
fast_start_mttr_target			300 4		Integer		

5.3 设置 system 表空间警告值

设置PROD数据库system表空间使用率警告

Database Instance: PROD

Home Performance **Administration** Maintenance

The Administration tab displays links that allow you to administer database objects and initiate database operations inside an Oracle Database. The Maintenance tab displays links that provide functions that control the flow of data between or outside Oracle Databases.

Database Administration

Storage

Control Files
Tablespaces
Temporary Tablespace Groups
Datafiles
Rollback Segments
Redo Log Groups
Archive Logs

Database Configuration

Memory Parameters
Undo Management
All Initialization Parameters
Database Feature Usage

Oracle Scheduler

Jobs
Chains
Schedules
Programs
Job Classes
Windows
Window Groups
Global Attributes

选中SYSTEM表空间，点击左上角的Edit。

Selection Mode: Single

Edit View Delete Actions Add Datafile Go

Select	Name	Allocated Size(MB)	Space Used(MB)	Allocated Space Used(%)	Allocated Free Space(MB)	Status	Datafiles	Type	Extent Management
<input type="radio"/>	EXAMPLE	400.0	1.0	0.2	399.0	✓	1	PERMANENT	LOCAL
<input type="radio"/>	INDEX	40.0	0.1	0.2	39.9	✓	1	PERMANENT	LOCAL
<input type="radio"/>	OLTP	48.0	2.0	4.2	46.0	✓	1	PERMANENT	LOCAL
<input type="radio"/>	SYSAUX	325.0	56.5	17.4	268.5	✓	1	PERMANENT	LOCAL
<input checked="" type="radio"/>	SYSTEM	325.0	222.2	68.4	102.8	✓	1	PERMANENT	LOCAL
<input type="radio"/>	TEMP1	5.0	0.0	0.0	5.0	✓	1	TEMPORARY	LOCAL
<input type="radio"/>	TEMP2	26.0	0.0	0.0	26.0	✓	1	TEMPORARY	LOCAL
<input type="radio"/>	TEMP2S1	20.0	0.0	0.0	20.0	✓	1	TEMPORARY	LOCAL
<input type="radio"/>	TOOLS	10.0	0.1	0.6	9.9	✓	1	PERMANENT	LOCAL
<input type="radio"/>	UNDOTBS	200.0	5.1	2.5	194.9	✓	1	UNDO	LOCAL

切换到Thresholds标签，指定警告值并应用。

Database Instance: PROD > Tablespaces >

Edit Tablespace: SYSTEM

Actions: Add Datafile Go Execute On Multiple Databases Show SQL Revert **Apply**

General Storage **Thresholds**

Available Space (MB) **325.00** Space Used (MB) **221.94**
Space Used (%) **68.29** Available Free Space (MB) **103.06**

Tablespace Full Metric Thresholds

Monitor the fullness of the tablespace using either of the metrics below.

Space Used (%)

A warning or critical alert will be generated if the percentage of space used exceeds the corresponding threshold.

☐ Use Database Default Thresholds **Modify**

Warning (%) **85**
Critical (%) **97**

☒ **Specify Thresholds**

Warning (%)
Critical (%)

☐ Disable Thresholds

Free Space (MB)

A warning or critical alert will be generated if the remaining free space falls below the corresponding threshold. This metric is especially useful for large tablespaces.

☒ Use Database Default Thresholds **Modify**

Warning (MB) **Not Defined**
Critical (MB) **Not Defined**

☐ Specify Thresholds

Warning (MB)
Critical (MB)

5.4 设置接收系统通知的邮箱

点击右上角的Preferences，在General中点击“Add Another Row”。

ORACLE Enterprise Manager 10g
Grid Control

Home Targets Deployments Alerts Policies Jobs Reports

Setup **Preferences** Help Logout

Preferences

General
Preferred Credentials
Notification Rules Schedule
Target Subtabs

General

Revert Apply

Password
To change your password, specify and confirm a new password.

Administrator **SYSTEM**
Current Password
New Password
Confirm New Password

E-mail Addresses
These addresses are used to send notifications to you. You can specify multiple addresses if you want to be notified in different ways, and the format to use for each address. Later on, you will need to define a Notification Schedule before any e-mail notifications can be sent to you.

Select E-mail Address	Message Format
No e-mail addresses specified	
Add Another Row	

☒ TIP Refer to on-line help for message format sample.

输入邮箱地址

E-mail Addresses
These addresses are used to send notifications to you. You can specify multiple addresses if you want to be notified in different ways, and the format to use for each address. Later on, you will need to define a Notification Schedule before any e-mail notifications can be sent to you.

Remove Test

Select All | Select None

Select E-mail Address	Message Format
<input checked="" type="checkbox"/> dba@ocm.com	Long Format
Add Another Row	

☒ TIP Refer to on-line help for message format sample.

Revert **Apply**

Deployments | Alerts | Policies | Jobs | Reports | Setup | **Preferences** | Help | Logout

5.5 创建新表空间 REGISTRATION

区大小定为1M，使用ASSM，数据文件90M，自动扩展项最大大小定为120M。创建表空间REGISTRATION，数据文件90M可扩展到120M，并优化数据块。

ORACLE Enterprise Manager 10g
Grid Control

Home **Targets** Deployments Alerts Policies Jobs Re

Hosts **Databases** Application Servers Web Applications Services Systems Groups All Targets

Databases

Page Refreshed Mar 9, 2014 1:12:11 PM CST

Search Go [Advanced Search](#)

[Remove](#) [Configure](#) [Add](#)

Select	Name	Status	Alerts	Policy Violations	Compliance Score (%)	Version	Sessions: CPU	Sessions: I/O	Sessions: Other	Instance CPU (%)
<input type="radio"/>	EMREP		0 2	8 9 2	93	10.2.0.1.0	.01	0	0	.85
<input checked="" type="radio"/>	PROD		0 3	15 11 2	88	10.2.0.1.0	0	0	0	.27

TIP For an explanation of the icons and symbols used in this page, see the [Icon Key](#).

Related Links

[Customize Table Columns](#)
[Dictionary Baselines](#)
[Dictionary Comparisons](#)
[Execute SQL](#)
[Recovery Catalogs](#)

创建表空间

ORACLE Enterprise Manager 10g
Grid Control

Home **Targets** Deployments Alerts Policies

Hosts Databases Application Servers Web Applications Services Systems Groups All Targets

Logged in

Database Instance: PROD

Home Performance **Administration** Maintenance

The Administration tab displays links that allow you to administer database objects and initiate database operations on the Oracle database. The Maintenance tab displays links that provide functions that control the flow of data between or among Oracle databases.

Database Administration

Storage Control Files Tablespaces Temporary Tablespace Groups Datafiles Rollback Segments Redo Log Groups Archive Logs	Database Configuration Memory Parameters Undo Management All Initialization Parameters Database Feature Usage	Oracle Scheduler Jobs Chains Schedules Programs Job Classes Windows Window Groups
---	--	---

finning with the string you entered. To run an exact or case-sensitive match, double quote the search string. You can use the

[Create](#)

ile Go

Allocated Space Used(%)	Allocated Free Space(MB)	Status	Datafiles	Type	Extent Management	Segment Management
	0.2 399.0	✓	1	PERMANENT	LOCAL	AUTO
	0.2 39.9	✓	1	PERMANENT	LOCAL	AUTO
	4.2 46.0	✓	1	PERMANENT	LOCAL	AUTO

* Name **REGISTRATION**

Extent Management
☒ **Locally Managed**
☐ Dictionary Managed

Type
☒ **Permanent**
☐ Set as default permanent tablespace
☐ Temporary
☐ Set as default temporary tablespace
☐ Undo
 Undo Retention Guarantee ☐ Yes ☒ No

Status
☒ **Read Write**
☐ Read Only
☐ Offline

Datafiles

☐ Use bigfile tablespace
 Tablespace can have only one datafile with no practical size limit.

Add

Select	Name	Directory	Size (MB)
	No items found		

设置数据文件初始容量、可扩展性、最大容量。

ORACLE Enterprise Manager
 Grid Control
 Home Targets Deployments Alerts Policies
 Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | All Targets
 Database Instance: PROD > Tablespaces > Logged in As SYS

Add Datafile Cancel **Continue**

* File Name **REGIST01.dbf**

* File Directory **/u01/oradata/PROD/**

Tablespace **REGISTRATION**

File Size **90** MB ☐ Reuse Existing File

Storage

☒ Automatically extend datafile when full (AUTOEXTEND)
 Increment **1** MB

Maximum File Size ☐ Unlimited
☒ Value **120** MB

TIP Changes made on this page will NOT take effect until you click "Apply" button on the Tablespace page.

Database Instance: PROD > Tablespaces > Logged in As SYS

Create Tablespace

Execute On Multiple Databases Show SQL **Cancel** **OK**

General Storage

* Name:

Extent Management	Type	Status
<input checked="" type="radio"/> Locally Managed <input type="radio"/> Dictionary Managed	<input checked="" type="radio"/> Permanent <input type="checkbox"/> Set as default permanent tablespace <input type="radio"/> Temporary	<input checked="" type="radio"/> Read Write <input type="radio"/> Read Only <input type="radio"/> Offline

6.部署 Schedule 和 job

6.1 创建 schedule

创建一个每天下午2点运行的schedule，名为DAILYREBUILD

进入管理界面，选择Schedules。

ORACLE Enterprise Manager 10g Setup Preferences Help

Grid Control Home **Targets** Deployments Alerts Policies Jobs

Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | All Targets Logged in As SYS

Database Instance: PROD

Home Performance **Administration** Maintenance

The Administration tab displays links that allow you to administer database objects and initiate database operations inside an Oracle database. The Maintenance tab displays links that provide functions that control the flow of data between or outside Oracle databases.

Database Administration

Storage Control Files Tablespaces Temporary Tablespace Groups Datafiles Rollback Segments Redo Log Groups Archive Logs	Database Configuration Memory Parameters Undo Management All Initialization Parameters Database Feature Usage	Oracle Scheduler Jobs Chains Schedules Programs Job Classes Windows Window Groups Global Attributes
Statistics Management	Change Database	Resource Manager

点击Create

ORACLE Enterprise Manager 10g Setup Preferences Help

Grid Control Home Targets Deployments Alerts Policies Jobs Re

Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | All Targets Logged in As SYS

Scheduler Schedules

Page Refreshed Mar 9, 2014 1:27:56 PM CST **Refresh**
Create

Edit View Delete Create Like

Select	Name	Schema	Start Date	End Date	Description
<input checked="" type="radio"/>	DAILY_PURGE_SCHEDULE	SYS			

Related Links

Chains	Global Attributes	Job Classes
Jobs	Programs	Window Groups
Windows		

Execute on multiple databases Show SQL

* Name **DAILYREBUILD**

* Schema SYS

Description

Schedule Attributes

Time Zone GMT +08:00

Schedule Type Standard

Repeating

Repeat **By Days**

Interval (Days) 1

Time 2 00 00 AM **PM**

Available to Start

☒ Immediately

设置好schedule名称及执行时间。
其他默认即可，点OK保存

6.2 创建一个名为 EMP_IND_REBUILD 的 program

为PROD数据库创建一个名为EMP_IND_REBUILD的program，该program重建HR.EMPLOYEES表的索引。

首先进入数据库的管理（Administration）界面，点击“Programs”。

ORACLE Enterprise Manager 10g Grid Control

Home **Targets** Deployments Alerts Policies Jobs Repo

Hosts **Databases** Application Servers Web Applications Services Systems Groups All Targets

Logged in A

Database Instance: PROD

Home Performance **Administration** Maintenance

The Administration tab displays links that allow you to administer database objects and initiate database operations inside an Oracle database. The Maintenance tab displays links that provide functions that control the flow of data between or outside Oracle databases.

Database Administration

Storage	Database Configuration	Oracle Scheduler
Control Files	Memory Parameters	Jobs
Tablespaces	Undo Management	Chains
Temporary Tablespace Groups	All Initialization Parameters	Schedules
Datafiles	Database Feature Usage	Programs
Rollback Segments		Job Classes
Redo Log Groups		Windows
Archive Logs		Window Groups
		Global Attributes
Statistical Management	Change Database	Database Monitor

点击“Create”按钮。

ORACLE Enterprise Manager 10g
Grid Control

Home Targets Deployments Alerts Policies Jobs Re

Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | All Targets

Database Instance: PROD > Logged in As SYS

Scheduler Programs

Following are the programs that define what are to be executed in the jobs.

View Edit Delete Create Like Go

Select	Name	Schema	Enabled	Type	Description
<input checked="" type="radio"/>	AUTO_SPACE_ADVISOR_PROG	SYS	✓	STORED_PROCEDURE	auto space advisor maintenance program
<input type="radio"/>	GATHER_STATS_PROG	SYS	✓	STORED_PROCEDURE	Oracle defined automatic optimizer statistics collection program
<input type="radio"/>	PURGE_LOG_PROG	SYS	✓	STORED_PROCEDURE	purge log program

Related Links

Chains Global Attributes Job Classes
Jobs Schedules Window Groups
Windows

Create

设置Program的属性，如名称、执行内容。

Database Instance: PROD > Scheduler Programs > Logged in As SYS

Create Program

Execute On Multiple Databases Show SQL Cancel OK

* Name EMP_IND_REBUILD

Schema SYS

Enabled ☒ Yes ☐ No

Description

Type PLSQL_BLOCK

* Source

```

v_sql varchar2(200)
begin
  for c1 in
  (
    select index_name from dba_indexes where owner='HR' and table_name='EMPLOYEES'
  )
  loop
    v_sql:='alter index hr.'||c1.index_name||' rebuild';
    execute immediate v_sql;
  end loop;
end

```

Execute On Multiple Databases Show SQL Cancel OK

这里的代码块，最笨的方法：

就是查出HR.EMPLOYEES表的索引索引。

然后，针对每一个索引，写一条alter index index_name rebuild语句。

将这些语句放到一个PLSQL代码块中。

```

declare
v_sql varchar2(100);
begin
  for c in (select index_name from dba_indexes where owner='HR' and
table_name='EMPLOYEES') loop

```



```

v_sql:='alter index hr.'||c.index_name||' rebuild';

execute immediate v_sql;

end loop;

end;

/

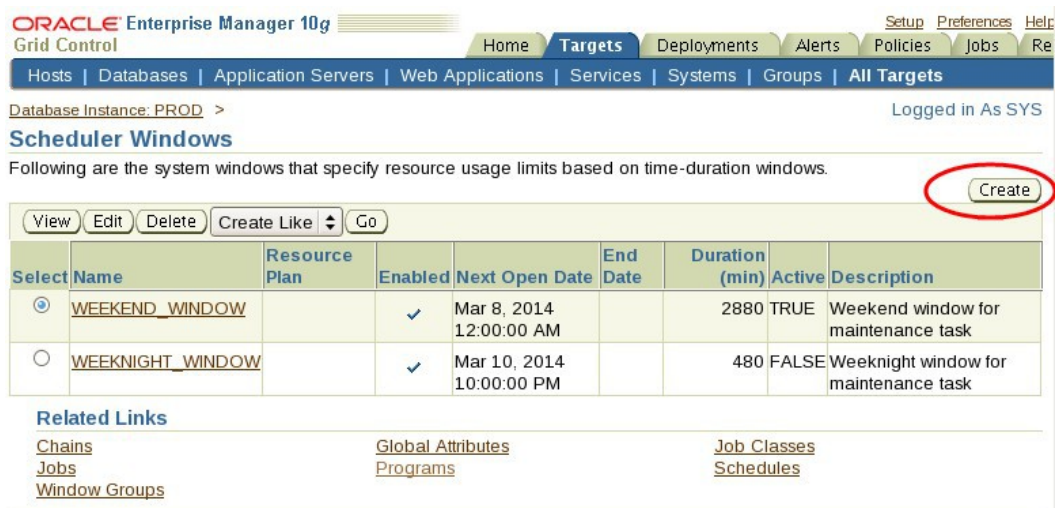
```

6.3 创建使用 Schedule 和 SYSTEM_PLAN 资源管理计划的 Window

创建一个利用资源管理计划（SYSTEM_PLAN）来管理 SCHEDULE（DAILYREBUILD）的window



点击“Create”按钮。



设置 Window 的名称、Resource Plan 选择为 SYSTEM_PLAN、选择已有的 Schedule（DAILYREBUILD）。

Create Window

为window设置个名称

* Name: HR_EMP_WINDOW

Resource Plan: SYSTEM_PLAN [View Resource Plan](#) [Create Resource Plan](#)

Priority: ☒ Low ☐ High 选择资源计划为SYSTEM_PLAN

Description:

Schedule

☐ Use a calendar [Standard](#)

☒ Use an existing schedule 使用已有的SCHEDULE

Schedule

Schedule Name: SYS.DAILYREBUILD [Select Schedule](#) [Create Schedule](#)

General

Name: DAILYREBUILD 在新窗口中，勾选DAILYREBUILD

Schema: SYS

Description:

6.4 创建一个调用 Schedule 和 Program 的 Job

创建一个名为REBUILD_JOB的JOB，该JOB调用DAILYREBUILD schedule和EMP_IND_REBUILD program.

ORACLE Enterprise Manager 10g [Grid Control](#) [Home](#) [Targets](#) [Deployments](#) [Alerts](#) [Policies](#) [Jobs](#) [Setup](#) [Preferences](#)

[Hosts](#) | [Databases](#) | [Application Servers](#) | [Web Applications](#) | [Services](#) | [Systems](#) | [Groups](#) | [All Targets](#)

Logged in As SYS

Database Instance: PROD

[Home](#) [Performance](#) [Administration](#) [Maintenance](#)

The Administration tab displays links that allow you to administer database objects and initiate database operations inside an Oracle database. The Maintenance tab displays links that provide functions that control the flow of data between or outside Oracle databases.

Database Administration

Storage Control Files Tablespaces Temporary Tablespace Groups Datafiles Rollback Segments Redo Log Groups Archive Logs	Database Configuration Memory Parameters Undo Management All Initialization Parameters Database Feature Usage	Oracle Scheduler Jobs Chains Schedules Programs Job Classes Windows Window Groups Global Attributes
Statistics Management Automatic Workload Repository Manage Optimizer Statistics	Change Database Migrate to ASM Convert to Cluster Database Make Tablespace Locally Managed	Resource Manager Monitors Consumer Groups Consumer Group Mappings Plans

点击Create按钮。

ORACLE Enterprise Manager 10g
Grid Control

Home Targets Deployments Alerts Policies Jobs

Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | All Targets

Database Instance: PROD > Logged in As SYS

Scheduler Jobs

Page Refreshed Mar 9, 2014 2:21:36 PM CST Refresh Create

All Running History

View Job Definition Edit Job Definition Delete Run Now Create Like

Select	Name	Schema	Scheduled Date	Last Run Date	Last Run Status	Enabled	Job
<input checked="" type="radio"/>	PURGE_LOG	SYS	Mar 10, 2014 3:00:00 AM +08:00	Mar 9, 2014 3:00:00 AM +08:00	SCHEDULED	<input checked="" type="checkbox"/>	DEF
<input type="radio"/>	FGF\$AUTOPURGE_JOB	SYS	Not Scheduled	Not Scheduled	DISABLED	<input type="checkbox"/>	DEF
<input type="radio"/>	CATIVER STATE JOB	SYS	MAINTENANCE WINDOW GROUP	Mar 9	SCHEDULED	<input type="checkbox"/>	AUT

设置job的名称及调用的program。

Create Job

Execute On Multiple Databases Show SQL Cancel OK

General Schedule Options

* Name REBUILD_JOB

* Schema SYS

Enabled ☒ Yes ☐ No

Description

Logging Level Log job runs only (RUNS)

Specify logging requirements for the job

Job Class DEFAULT_JOB_CLASS Create Job Class

Auto Drop FALSE

Specify whether the job should be dropped after completion

Restartable FALSE

Specify whether the job can be restarted manually or in the event of failure

Command

Select the command type for the job, then enter the command requirements.

Command Type Program Change Command Type

Program Name SYS.EMP_IND_REBUILD


在弹出的页面按要求，勾选已创建的EMP_IND_REBUILD的Program

Choose an existing program or specify an in-line program for execution. Program offers code re-usability and per

Program Name HR EMP_IND_REBUILD Create Program

PI / SQL


* Name

* Schema 

Enabled ☒ Yes ☐ No

Description

Logging Level
 Specify logging requirements for the job

Job Class 

Auto Drop
 Specify whether the job should be dropped after completion

Restartable
 Specify whether the job can be restarted manually or in the event of failure

Command

Select the command type for the job, then enter the command requirements.

Command Type **Program**

Program Name **HR.EMP_IND_REBUILD**

切换到Schedule标签、Schedule Type选择“Use Pre-defined Schedule”。

Database Instance: PROD > Scheduler Jobs > Logged in As SYS

Create Job

General **Schedule** Options

Schedule Type


Time Zone

Repeating

Repeat

Start

☒ Immediately
☐ Later

Date 
(example: Mar 9, 2014)

Time ☐ AM ☒ PM


选择已经定义的Schedule。

Create Job

<u>General</u>	Schedule	<u>Options</u>
----------------	-----------------	----------------

Schedule Type

Select an existing schedule.

Schedule 

General

Name **DAILYREBUILD**

Schema **HR**

Description

Schedule Attributes

Repeat **By Days**

Interval (Days) **1**

Repeat Time **Hour:2 Minute:00 Second:00 PM**

Available to Start **May 1, 2012 10:22:52 AM GMT +08:00**

Not Available After

Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | **All Targets**

Database Instance: **PROD** > Scheduler Jobs >

Logged in As **SYS**

Create Job

<u>General</u>	Schedule	<u>Options</u>
----------------	-----------------	----------------

Schedule Type

Select an existing schedule.

Schedule 

在弹出的页面勾选已创建的名为DAILYREBUILD的Schedule

General

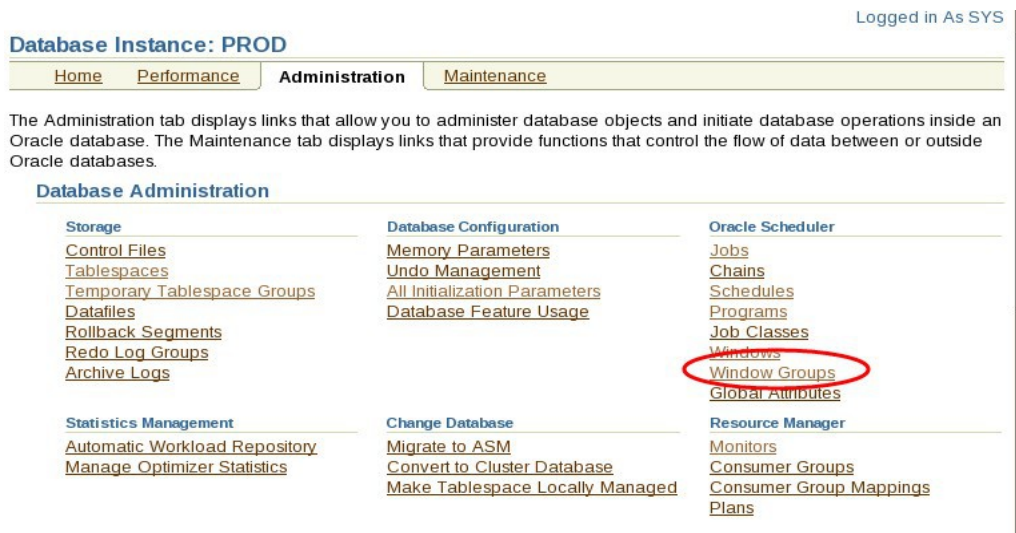
Name **DAILYREBUILD**

Schema **SYS**

Description

Schedule Attributes

Repeat **By Days**



点击Create按钮



向window group里添加window。



Section 2题目做完之后，建议先停掉GC，对GC做一个资料库的冷备。以防止以后的考试中，GC无法使用。

停止gc的命令如下：

节点server02

```
[oracle@server02 ~]$ /u01/OracleHomes/oms10g/bin/emctl stop oms
Oracle Enterprise Manager 10g Release 10.2.0.1.0
Copyright (c) 1996, 2005 Oracle Corporation. All rights reserved.
Oracle Management Server is Down.

[oracle@server02 ~]$ /u01/OracleHomes/agent10g/bin/emctl stop agent
Oracle Enterprise Manager 10g Release 10.2.0.1.0.
Copyright (c) 1996, 2005 Oracle Corporation. All rights reserved.
Stopping agent ... stopped.

[oracle@server02 ~]$ /u01/OracleHomes/oms10g/opmn/bin/opmnctl stopall
opmnctl: stopping opmn and all managed processes...
```

节点 server01

```
[oracle@server01 ~]$ /u01/agent10g/bin/emctl stop agent
Oracle Enterprise Manager 10g Release 10.2.0.1.0.
Copyright (c) 1996, 2005 Oracle Corporation. All rights reserved.
Stopping agent ... stopped.
```