Oracle 手动建库常见问题

1.1 BLOG 文档结构图

1.2 前言部分

1.2.1 导读和注意事项

各位技术爱好者，看完本文后，你可以掌握如下的技能，也可以学到一些其它你所不知道的知识，~O(∩_∩)O~：

① 10G 和 11g 手动建库（重点）

② 各种组件安装

③ 创建 Sample Schemas 数据

④ 手动建库中常用脚本的解释

⑤ sqlplus 中的帮助命令

Tips：

① 本文在 ITpub（http://blog.itpub.net/26736162）和博客园（http://www.cnblogs.com/lhrbest）有同步更新

② 文章中用到的所有代码，相关软件，相关资料请前往小麦苗的云盘下载（http://blog.itpub.net/26736162/viewspace-1624453/）

③ 若文章代码格式有错乱，推荐使用搜狗、360 或 QQ 浏览器，也可以下载 pdf 格式的文档来查看，pdf 文档下载地址：http://blog.itpub.net/26736162/viewspace-1624453/

④ 本篇 BLOG 中命令的输出部分需要特别关注的地方我都用灰色背景和粉红色字体来表示，比如下边的例子中，thread 1 的最大归档日志号为 33，thread 2 的最大归档日志号为 43 是需要特别关注的地方；而命令一般使用黄色背景和红色字体标注；对代码或代码输出部分的注释一般采用蓝色字体表示。

```
  List of Archived Logs in backup set 11
  Thrd Seq     Low SCN    Low Time            Next SCN   Next Time
  ---- ------- ---------- ------------------- ---------- ---------
  1    32      1621589    2015-05-29 11:09:52 1625242    2015-05-29 11:15:48
  1    33      1625242    2015-05-29 11:15:48 1625293    2015-05-29 11:15:58
  2    42      1613951    2015-05-29 10:41:18 1625245    2015-05-29 11:15:49
  2    43      1625245    2015-05-29 11:15:49 1625253    2015-05-29 11:15:53



[ZHLHRDB1:root]:/>lsvg -o
T_XDESK_APP1_vg
rootvg
[ZHLHRDB1:root]:/>
00:27:22 SQL> alter tablespace idxtbs read write;


====》2097152*512/1024/1024/1024=1G
```

本文如有错误或不完善的地方请大家多多指正，ITPUB 留言或 QQ 皆可，您的批评指正是我写作的最大动力。

1.3 本文简介

上一篇（http://blog.itpub.net/26736162/viewspace-2121930/）中最后差了手动建库的部分，今天把这

个部分的内容加上。本来手动建库很早就学习过了，只是一直没有时间来整理发布，今天就趁这个机会正好整理一下，分享给大家。

小麦苗学习手动建库的动力源于之前帮网友采用 dbca 建库的时候报错，由于 java 环境的问题，dbca 一直没有办法使用，无论界面还是静默都用到 java，折腾了 2 个小时还是把 java 没有修复好，dbca 不能用，最后想到了 create database 手动建库，虽然工作中很少采用但还是有一定的用途的。

1.4 手动建库简介

有时候因为环境的缘故不能使用图形界面或者不能使用 dbca 的静默方式来创建一个新库，那么这个时候可以考虑使用 CREATE DATABASE SQL 命令行来创建数据库，该方式是一种手动建库方式，使用此种命令行手动创建数据库的优点是：可以用脚本来创建数据库。 另外 OCM 的考试中要求我们用 CREATE DATABASE 来创建数据库。当然在使用脚本创建数据库时，在建立数据字典视图和安装标准的 PL/SQL 程序包时，必须先建立一个可以操作的数据库。

1.5 手动建库基本步骤

官方文档的步骤：

Step 1: Specify an Instance Identifier (SID)
Step 2: Ensure That the Required Environment Variables Are Set
Step 3: Choose a Database Administrator Authentication Method
Step 4: Create the Initialization Parameter File
Step 5: (Windows Only) Create an Instance
Step 6: Connect to the Instance
Step 7: Create a Server Parameter File
Step 8: Start the Instance
Step 9: Issue the CREATE DATABASE Statement
Step 10: Create Additional Tablespaces
Step 11: Run Scripts to Build Data Dictionary Views
Step 12: (Optional) Run Scripts to Install Additional Options
Step 13: Back Up the Database.
Step 14: (Optional) Enable Automatic Instance Startup

具体可以参考： http://docs.oracle.com/cd/E11882_01/server.112/e25494/create.htm

我的 blog：http://blog.itpub.net/26736162/viewspace-2098211/

1.6 直接给出脚本

我们直接给出手动建库用到的脚本，至于过程小麦苗就不演示了。

1.6.1 11G

1.6.1.1 ORACLE 用户执行 数据文件在文件系统 单实例 DB

---------- 1、 确保环境变量正确

```
export ORACLE_SID=lhrdb
env|grep ORACLE

ORACLE_SID=lhrdb
ORACLE_BASE=/u01/app/oracle
ORACLE_HOME=/u01/app/oracle/product/11.2.0/dbhome_1
```

---------- 2、 创建密码文件

```
orapwd file=$ORACLE_HOME/dbs/orapwlhrdb password=lhr force=y
```

---------- 3、 创建初始化参数文件和相关路径

```
$ORACLE_HOME/dbs/initlhrdb.ora

db_name='lhrdb'
memory_target=400437056
processes = 150
audit_file_dest='/u01/app/oracle/admin/lhrdb/adump'
audit_trail ='db'
db_block_size=8192
db_domain=''
db_create_file_dest='/u01/app/oracle/oradata'
db_recovery_file_dest='/u01/app/oracle/flash_recovery_area'
db_recovery_file_dest_size=2G
diagnostic_dest='/u01/app/oracle'
dispatchers='(PROTOCOL=TCP) (SERVICE=MYNEWDBXDB)'
open_cursors=300
remote_login_passwordfile='EXCLUSIVE'
undo_tablespace='UNDOTBS1'
control_files =
'/u01/app/oracle/oradata/lhrdb/control01.ctl','/u01/app/oracle/flash_recovery_area/lhrdb/control02.
ctl'
```

```
compatible ='11.2.0'
```

```
mkdir -p /u01/app/oracle/admin/lhrdb/adump
mkdir -p /u01/app/oracle/flash_recovery_area/lhrdb/
mkdir -p /u01/app/oracle/oradata/lhrdb/
```

------------ 4、 创建 spfile，启动到 nomount 状态

```
sqlplus / as sysdba
create spfile from pfile;
startup nomount
! ps -ef|grep lhrdb
```

------------ 5、 创建 DB

```
CREATE DATABASE lhrdb
USER SYS IDENTIFIED BY lhr
USER SYSTEM IDENTIFIED BY lhr
CONTROLFILE REUSE
CHARACTER SET ZHS16GBK
NATIONAL CHARACTER SET AL16UTF16
EXTENT MANAGEMENT LOCAL
ARCHIVELOG
MAXLOGFILES 192 MAXLOGMEMBERS 5 MAXLOGHISTORY 292 MAXDATAFILES 1024 MAXINSTANCES 32
LOGFILE GROUP
1('/u01/app/oracle/oradata/lhrdb/redo01a.log','/u01/app/oracle/oradata/lhrdb/redo01b.log') SIZE 50M
BLOCKSIZE 512,
    GROUP 2('/u01/app/oracle/oradata/lhrdb/redo02a.log','/u01/app/oracle/oradata/lhrdb/redo02b.log')
SIZE 50M blocksize 512,
    GROUP 3('/u01/app/oracle/oradata/lhrdb/redo03a.log','/u01/app/oracle/oradata/lhrdb/redo03b.log')
SIZE 50M BLOCKSIZE 512
DATAFILE '/u01/app/oracle/oradata/lhrdb/system01.dbf' SIZE 300M REUSE AUTOEXTEND ON NEXT 10M MAXSIZE
10G
SYSAUX DATAFILE '/u01/app/oracle/oradata/lhrdb/sysaux01.dbf' SIZE 100M REUSE AUTOEXTEND ON NEXT 10M
MAXSIZE 10G
DEFAULT TEMPORARY TABLESPACE TEMP TEMPFILE '/u01/app/oracle/oradata/lhrdb/temp01.dbf' SIZE  10M REUSE
AUTOEXTEND ON NEXT 10M MAXSIZE 1G
UNDO TABLESPACE UNDOTBS1 DATAFILE '/u01/app/oracle/oradata/lhrdb/undotbs01.dbf'SIZE  10M REUSE
AUTOEXTEND ON NEXT 10M MAXSIZE 1G
DEFAULT TABLESPACE USERS DATAFILE '/u01/app/oracle/oradata/lhrdb/users01.dbf' SIZE  10M REUSE
AUTOEXTEND ON NEXT 10M MAXSIZE 10G
/
```

```
SPOOL /tmp/dictionary_tmp.sql
@?/rdbms/admin/catalog.sql
@?/rdbms/admin/catproc.sql
@?/rdbms/admin/catclust.sql
@?/rdbms/admin/dbmspool.sql
@?/rdbms/admin/catblock.sql
@?/rdbms/admin/caths.sql
@?/rdbms/admin/owminst.plb
@?/sqlplus/admin/plustrce.sql
@?/rdbms/admin/utlrp.sql
@?/rdbms/admin/utlsampl.sql
```

```
conn system/lhr
@?/sqlplus/admin/pupbld.sql
@?/sqlplus/admin/help/hlpbld.sql helpus.sql
SPOOL off
```

------ 单实例数据库添加到 srvctl 中

```
srvctl add database -d lhrdb -c single -o /u01/app/oracle/product/11.2.0/dbhome_1 -p
'/u01/app/oracle/product/11.2.0/dbhome_1/dbs/spfilelhrdb.ora' -r primary -n lhrdb -x ZFXDESKDB2

srvctl config database -d lhrdb -a

srvctl status database -d lhrdb
srvctl start database -d lhrdb

crsctl stat res -t
```

------ drop database

```
alter database close;
alter system enable restricted session;
drop database;
```

1.6.1.2 ORACLE 用户执行 数据文件在 ASM 中 单实例 DB

------------ 1、 确保环境变量正确

```
export ORACLE_SID=lhrasm
env|grep ORACLE

ORACLE_SID=lhrasm
ORACLE_BASE=/u01/app/oracle
ORACLE_HOME=/u01/app/oracle/product/11.2.0/dbhome_1
```

------------ 2、 创建密码文件

```
orapwd file=$ORACLE_HOME/dbs/orapwlhrasm password=lhr force=y
```

------------ 3、 创建初始化参数文件和相关路径

```
$ORACLE_HOME/dbs/initlhrasm.ora
```

```
db_name='lhrasm'
memory_target=400437056
processes = 150
audit_file_dest='/u01/app/oracle/admin/lhrasm/adump'
audit_trail ='db'
db_block_size=8192
db_domain=''
db_create_file_dest='+DATA'
db_recovery_file_dest='+FRA'
db_recovery_file_dest_size=2G
diagnostic_dest='/u01/app/oracle'
dispatchers='(PROTOCOL=TCP) (SERVICE=MYNEWDBXDB)'
open_cursors=300
remote_login_passwordfile='EXCLUSIVE'
undo_tablespace='UNDOTBS1'
control_files = '+DATA/lhrasm/controlfile/control01.ctl','+FRA/lhrasm/controlfile/control02.ctl'
compatible ='11.2.0'
```

```
mkdir -p /u01/app/oracle/admin/lhrasm/adump
mkdir -p /u01/app/oracle/flash_recovery_area/lhrasm/
mkdir -p /u01/app/oracle/oradata/lhrasm/
```

---------- 4、 创建 spfile，启动到 nomount 状态

```
sqlplus / as sysdba
create spfile from pfile;
startup nomount
! ps -ef|grep lhrasm
```

---------- 5、 创建 DB

```
CREATE DATABASE lhrasm
USER SYS IDENTIFIED BY lhr
USER SYSTEM IDENTIFIED BY lhr
CONTROLFILE REUSE
CHARACTER SET ZHS16GBK
NATIONAL CHARACTER SET AL16UTF16
EXTENT MANAGEMENT LOCAL
ARCHIVELOG
MAXLOGFILES 192 MAXLOGMEMBERS 5 MAXLOGHISTORY 292 MAXDATAFILES 1024 MAXINSTANCES 32
LOGFILE GROUP 1('+DATA','+DATA') SIZE 50M BLOCKSIZE 512,
    GROUP 2('+DATA','+DATA') SIZE 50M blocksize 512,
    GROUP 3('+DATA','+DATA') SIZE 50M BLOCKSIZE 512
DATAFILE '+DATA' SIZE 300M REUSE AUTOEXTEND ON  NEXT 10M MAXSIZE 10G
SYSAUX DATAFILE '+DATA' SIZE 100M REUSE AUTOEXTEND ON  NEXT 10M MAXSIZE 10G
SET DEFAULT bigfile TABLESPACE
DEFAULT TEMPORARY TABLESPACE TEMP  TEMPFILE '+DATA' SIZE 10M REUSE AUTOEXTEND ON NEXT 10M MAXSIZE 1G
UNDO TABLESPACE UNDOTBS1 DATAFILE '+DATA'SIZE 10M REUSE AUTOEXTEND ON NEXT 10M MAXSIZE 1G
DEFAULT TABLESPACE USERS  DATAFILE '+DATA' SIZE 10M REUSE AUTOEXTEND ON NEXT 10M MAXSIZE 1G
;
```

```
/* --------- BIGFILE
CREATE DATABASE lhrasm
```

```
USER SYS IDENTIFIED BY lhr
USER SYSTEM IDENTIFIED BY lhr
CONTROLFILE REUSE
EXTENT MANAGEMENT LOCAL
SET DEFAULT bigfile TABLESPACE
DEFAULT TEMPORARY TABLESPACE TEMP
UNDO TABLESPACE UNDOTBS1
DEFAULT TABLESPACE USERS
;
*/
```

```
SPOOL /tmp/dictionary_tmp.sql
@?/rdbms/admin/catalog.sql
@?/rdbms/admin/catproc.sql
@?/rdbms/admin/catclust.sql
@?/rdbms/admin/dbmspool.sql
@?/rdbms/admin/catblock.sql
@?/rdbms/admin/caths.sql
@?/rdbms/admin/owminst.plb
@?/sqlplus/admin/plustrce.sql
@?/rdbms/admin/utlrp.sql
@?/rdbms/admin/utlsampl.sql
conn system/lhr
@?/sqlplus/admin/pupbld.sql
@?/sqlplus/admin/help/hlpbld.sql helpus.sql
SPOOL off
```

------ 单实例数据库添加到 srvctl 中

```
srvctl add database -d lhrasm -c single -o /u01/app/oracle/product/11.2.0/dbhome_1 -p
'/u01/app/oracle/product/11.2.0/dbhome_1/dbs/spfilelhrasm.ora' -r primary -n lhrasm -x ZFXDESKDB2

srvctl config database -d lhrasm -a

srvctl status database -d lhrasm
srvctl start database -d lhrasm

crsctl stat res -t
```

------ drop database

```
alter database close;
alter system enable restricted session;
drop database;
```

1.6.1.3 11G rac asm

---- 思路：先创建单实例 DB 然后再转换为 RAC DB

```
export ORACLE_SID=raclhr1
env|grep ORACLE

ORACLE_SID=raclhr
ORACLE_BASE=/u01/app/oracle
ORACLE_HOME=/u01/app/oracle/product/11.2.0/dbhome_1
```

------------ 2、 2 个节点都 创建密码文件

```

orapwd file=$ORACLE_HOME/dbs/orapwraclhr1 password=lhr force=y
orapwd file=$ORACLE_HOME/dbs/orapwraclhr2 password=lhr force=y
```

------------ 3、 创建初始化参数文件和相关路径

--- 节点一配置：

```
$ORACLE_HOME/dbs/initraclhr1.ora

*.db_name='raclhr'
*.memory_target=400437056
*.processes = 150
*.open_cursors=300
*.audit_file_dest='/u01/app/oracle/admin/raclhr/adump'
*.audit_trail ='db'
*.db_block_size=8192
*.db_domain=''
*.db_create_file_dest='+DATA'
*.db_recovery_file_dest='+FRA'
*.db_recovery_file_dest_size=2G
*.diagnostic_dest='/u01/app/oracle'
*.dispatchers='(PROTOCOL=TCP) (SERVICE=MYNEWDBXDB)'
*.control_files = '+DATA/raclhr/controlfile/control01.ctl','+FRA/raclhr/controlfile/control02.ctl'
*.remote_login_passwordfile='EXCLUSIVE'
```

---2 个节点都创建路径

```
mkdir -p /u01/app/oracle/admin/raclhr/adump
mkdir -p /u01/app/oracle/flash_recovery_area/raclhr/
mkdir -p /u01/app/oracle/oradata/raclhr/
```

--- 节点一执行

```
su - grid
asmcmd
cd +DATA
mkdir raclhr
```

```
cd raclhr
mkdir PARAMETERFILE

su - oracle
sqlplus / as sysdba
create spfile='+DATA/raclhr/PARAMETERFILE/spfileraclhr.ora' from pfile;
```

---2 个节点都执行 创建初始化参数文件执行 ASM 磁盘里的 SPFILE

```
cp $ORACLE_HOME/dbs/initraclhr1.ora $ORACLE_HOME/dbs/initraclhr1.ora_bk
echo "spfile='+DATA/raclhr/PARAMETERFILE/spfileraclhr.ora'" > $ORACLE_HOME/dbs/initraclhr1.ora
echo "spfile='+DATA/raclhr/PARAMETERFILE/spfileraclhr.ora'" > $ORACLE_HOME/dbs/initraclhr2.ora
```

---------- 4、节点一启动到 nomount 状态

```
startup nomount
! ps -ef|grep raclhr
show  parameter spfile
```

---------- 5、 创建 DB

```
CREATE DATABASE raclhr
USER SYS IDENTIFIED BY lhr
USER SYSTEM IDENTIFIED BY lhr
CONTROLFILE REUSE
CHARACTER SET ZHS16GBK
NATIONAL CHARACTER SET AL16UTF16
EXTENT MANAGEMENT LOCAL
ARCHIVELOG
MAXLOGFILES 192 MAXLOGMEMBERS 5 MAXLOGHISTORY 292 MAXDATAFILES 1024 MAXINSTANCES 32
LOGFILE GROUP 1('+DATA','+DATA') SIZE 50M BLOCKSIZE 512,
    GROUP 2('+DATA','+DATA') SIZE 50M blocksize 512,
    GROUP 3('+DATA','+DATA') SIZE 50M BLOCKSIZE 512
DATAFILE '+DATA' SIZE 300M REUSE AUTOEXTEND ON NEXT 10M MAXSIZE 10G
SYSAUX DATAFILE '+DATA' SIZE 100M REUSE AUTOEXTEND ON NEXT 10M MAXSIZE 10G
SET DEFAULT bigfile TABLESPACE
DEFAULT TEMPORARY TABLESPACE TEMP  TEMPFILE '+DATA' SIZE 10M REUSE AUTOEXTEND ON NEXT 10M MAXSIZE 1G
UNDO TABLESPACE UNDOTBS1 DATAFILE '+DATA'SIZE 10M REUSE AUTOEXTEND ON NEXT 10M MAXSIZE 1G
DEFAULT TABLESPACE USERS   DATAFILE '+DATA' SIZE 10M REUSE AUTOEXTEND ON NEXT 10M MAXSIZE 10G
;
```

```
/* --------- BIGFILE
CREATE DATABASE raclhr
USER SYS IDENTIFIED BY lhr
USER SYSTEM IDENTIFIED BY lhr
CONTROLFILE REUSE
EXTENT MANAGEMENT LOCAL
SET DEFAULT bigfile TABLESPACE
DEFAULT TEMPORARY TABLESPACE TEMP
UNDO TABLESPACE UNDOTBS1
DEFAULT TABLESPACE USERS
;
*/
```

---------- 6、 修改 rac 需要的内容

```
create undo tablespace UNDOTBS2 datafile '+DATA' size 50M reuse autoextend off;
alter database add logfile thread 2 group 4 ('+DATA','+FRA') SIZE 50M BLOCKSIZE 512;
alter database add logfile thread 2 group 5 ('+DATA','+FRA') SIZE 50M BLOCKSIZE 512;
alter database add logfile thread 2 group 6 ('+DATA','+FRA') SIZE 50M BLOCKSIZE 512;
```

select * from v$log;

```
ALTER SYSTEM SET cluster_database=true scope=spfile sid='*';
ALTER SYSTEM SET instance_number=1 scope=spfile sid='raclhr1';
ALTER SYSTEM SET instance_number=2 scope=spfile sid='raclhr2';
ALTER SYSTEM SET thread=1 scope=spfile sid='raclhr1';
ALTER SYSTEM SET thread=2 scope=spfile sid='raclhr2';
ALTER SYSTEM SET undo_tablespace='UNDOTBS1' scope=spfile sid='raclhr1';
ALTER SYSTEM SET undo_tablespace='UNDOTBS2' scope=spfile sid='raclhr2';
alter database enable public thread 2;

shutdown immediate
```

---------- 7、 启动 2 个节点

------ rac 数据库添加到 srvctl 中

```
srvctl add database -d raclhr -c rac -o /oracle/app/oracle/product/11.2.0/db -p
'+DATA/raclhr/PARAMETERFILE/spfileraclhr.ora' -r primary -n raclhr

srvctl config database -d raclhr -a

srvctl add instance -d raclhr -i raclhr1 -n ZFXDESKDB1
srvctl add instance -d raclhr -i raclhr2 -n ZFXDESKDB2


srvctl status database -d raclhr
srvctl stop db -d raclhr
srvctl start db -d raclhr
srvctl status database -d raclhr

crsctl stat res -t
```

---------- 8、 编译数据字典脚本

```
SPOOL /tmp/dictionary_tmp.sql
@?/rdbms/admin/catalog.sql
@?/rdbms/admin/catproc.sql
@?/rdbms/admin/catclust.sql
@?/rdbms/admin/dbmspool.sql
@?/rdbms/admin/catblock.sql
@?/rdbms/admin/caths.sql
@?/rdbms/admin/owminst.plb
@?/sqlplus/admin/plustrce.sql
@?/rdbms/admin/utlrp.sql
@?/rdbms/admin/utlsampl.sql
conn system/lhr
```

```
@?/sqlplus/admin/pupbld.sql
@?/sqlplus/admin/help/hlpbld.sql helpus.sql
SPOOL off
```

------ drop database

```
alter system set cluster_database=false scope=spfile;
! srvctl stop db -d raclhr
startup force mount restrict;
drop database;
```

1.6.2 10G

```
export ORACLE_SID=lhrdb
orapwd file=$ORACLE_HOME/dbs/orapwlhrdb password=lhr force=y


vi $ORACLE_HOME/dbs/initlhrdb.ora

db_name=lhrdb
processes=150
max_dump_file_size=10240
global_names=TRUE
control_files=('/u01/app/oracle/oradata/lhrdb/control01.ora','/u01/app/oracle/oradata/lhrdb/contro
l02.ora')
sga_target=400m
undo_management='AUTO'
undo_tablespace='UNDOTBS1'



mkdir -p $ORACLE_BASE/oradata/lhrdb
mkdir -p $ORACLE_BASE/lhrdb/adump
mkdir -p $ORACLE_BASE/lhrdb/bdump
mkdir -p $ORACLE_BASE/lhrdb/cdump
mkdir -p $ORACLE_BASE/lhrdb/ddump
mkdir -p $ORACLE_BASE/lhrdb/udump



sqlplus / as sysdba
create spfile from pfile;


startup nomount;
CREATE DATABASE lhrdb
   USER SYS IDENTIFIED BY lhr
   USER SYSTEM IDENTIFIED BY lhr
   CONTROLFILE REUSE
   CHARACTER SET ZHS16GBK
   NATIONAL CHARACTER SET AL16UTF16
   EXTENT MANAGEMENT LOCAL
   ARCHIVELOG
   MAXLOGFILES 24 MAXLOGMEMBERS 5 MAXLOGHISTORY 292 MAXDATAFILES 1024 MAXINSTANCES 12
   LOGFILE GROUP 1 ('/u01/app/oracle/oradata/lhrdb/redo01.log') SIZE 50M,
          GROUP 2 ('/u01/app/oracle/oradata/lhrdb/redo02.log') SIZE 50M,
          GROUP 3 ('/u01/app/oracle/oradata/lhrdb/redo03.log') SIZE 50M
   DATAFILE '/u01/app/oracle/oradata/lhrdb/system01.dbf' SIZE 300M REUSE
   SYSAUX DATAFILE '/u01/app/oracle/oradata/lhrdb/sysaux01.dbf' SIZE 100M REUSE
   DEFAULT TEMPORARY TABLESPACE temp TEMPFILE '/u01/app/oracle/oradata/lhrdb/temp01.dbf'  SIZE 20M
REUSE
   UNDO TABLESPACE undotbs1  DATAFILE '/u01/app/oracle/oradata/lhrdb/undotbs01.dbf' SIZE 10M REUSE
AUTOEXTEND ON NEXT 10M MAXSIZE 1G ;
```

```
conn / as sysdba
SPOOL /tmp/dictionary_tmp.sql
@?/rdbms/admin/catalog.sql
@?/rdbms/admin/catproc.sql
@?/rdbms/admin/catclust.sql
@?/rdbms/admin/dbmspool.sql
@?/rdbms/admin/catblock.sql
@?/rdbms/admin/caths.sql
@?/rdbms/admin/owminst.plb
@?/sqlplus/admin/plustrce.sql
@?/rdbms/admin/utlrp.sql
@?/rdbms/admin/utlsampl.sql
conn system/lhr
@?/sqlplus/admin/pupbld.sql
@?/sqlplus/admin/help/hlpbld.sql helpus.sql
SPOOL off
```

1.6.3 创建 bigfile 的 db 报错

```
ORA-01092: ORACLE instance terminated. Disconnection forced
ORA-01501: CREATE DATABASE failed
ORA-01519: error while processing file '?/rdbms/admin/dtxnspc.bsq' near line 20
ORA-00604: error occurred at recursive SQL level 1
ORA-32772: BIGFILE is invalid option for this type of tablespace
Process ID: 12451948
Session ID: 156 Serial number: 3
```

--------- 解决办法：SET DEFAULT bigfile TABLESPACE 位置不对，应该如下：

```
/* ---------BIGFILE
CREATE DATABASE lhrasm
USER SYS IDENTIFIED BY lhr
USER SYSTEM IDENTIFIED BY lhr
CONTROLFILE REUSE
CONTROLFILE REUSE
CHARACTER SET ZHS16GBK
NATIONAL CHARACTER SET AL16UTF16
EXTENT MANAGEMENT LOCAL
ARCHIVELOG
MAXLOGFILES 192 MAXLOGMEMBERS 5 MAXLOGHISTORY 292 MAXDATAFILES 1024 MAXINSTANCES 32
LOGFILE GROUP 1('+DATA','+DATA') SIZE 50M BLOCKSIZE 512,
   GROUP 2('+DATA','+DATA') SIZE 50M blocksize 512,
   GROUP 3('+DATA','+DATA') SIZE 50M BLOCKSIZE 512
DATAFILE '+DATA' SIZE 300M REUSE AUTOEXTEND ON MAXSIZE UNLIMITED
SYSAUX DATAFILE '+DATA' SIZE 100M REUSE AUTOEXTEND ON MAXSIZE UNLIMITED
SET DEFAULT bigfile TABLESPACE
DEFAULT TEMPORARY TABLESPACE TEMP  TEMPFILE '+DATA' SIZE 20M REUSE AUTOEXTEND OFF
```

```
UNDO TABLESPACE UNDOTBS1 DATAFILE '+DATA'SIZE 50M REUSE AUTOEXTEND OFF
DEFAULT TABLESPACE USERS   DATAFILE '+DATA' SIZE 500M REUSE AUTOEXTEND OFF
;


CREATE DATABASE lhrasm
USER SYS IDENTIFIED BY lhr
USER SYSTEM IDENTIFIED BY lhr
CONTROLFILE REUSE
EXTENT MANAGEMENT LOCAL
SET DEFAULT bigfile TABLESPACE
DEFAULT TEMPORARY TABLESPACE TEMP
UNDO TABLESPACE UNDOTBS1
DEFAULT TABLESPACE USERS
;
*/
```

1.7 手动建库中的组件安装

------ 安装 JVM

```
@?/javavm/install/initjvm.sql;
@?/xdk/admin/initxml.sql;
@?/xdk/admin/xmlja.sql;
@?/rdbms/admin/catjava.sql;
```

-- 安装 XMLDB

```
@?/rdbms/admin/catqm.sql oracle SYSAUX TEMP YES
@?/rdbms/admin/catxdbj.sql;
```

其它组件安装可以参考：http://blog.itpub.net/26736162/viewspace-1562441/

1.8 如何安装 Sample Schemas

dbca 静默安装中有个参数是 sampleSchema 我们若设置为 true，则安装后数据库中有 EXAMPLE 表空间，有 HR,OE,PM,SH,IX 用户，大约占用 350M 的空间，若设置为 false，则后续可以根据以下文档来安装。

【OH】 Database Sample Schemas -- Installation and Descriptions ： http://blog.itpub.net/26736162/viewspace-2098222/

1.9 手动建库中常用脚本的解释

更多的数据字典脚本说明可以参考：【OH】常用数据字典脚本说明 SQL Scripts ：

http://blog.itpub.net/26736162/viewspace-2098205/

Script Name	Needed For	Run By	Description
catalog.sql	All databases	SYS	Creates the data dictionary and public synonyms for many of its views Grants PUBLIC access to the synonyms
catproc.sql	All databases	SYS	Runs all scripts required for, or used with, PL/SQL
catclust.sql	Real Application Clusters	SYS	Creates Real Application Clusters data dictionary views
catblock.sql	Performance management	SYS	Creates views that can dynamically display lock dependency graphs
dbmspool.sql	Performance management	SYS or SYSDBA	Enables DBA to lock PL/SQL packages, SQL statements, and triggers into the shared pool
caths.sql	Heterogeneous Services	SYS	Installs packages for administering heterogeneous services
@?/rdbms/admin/owminst.plb		sys	创建 WMSYS 用户
@?/sqlplus/admin/pupbld.sql		system	解决 PRODUCT_USER_PROFILE 问题
@?/sqlplus/admin/plustrce.sql		sys	普通用户 set autot on 的权限
@?/sqlplus/admin/help/hlpbld.sql helpus.sql		system	sqlplus 的帮助文档

1.10 关于 sqlplus 的帮助命令

手动建库最后有个脚本：@?/sqlplus/admin/help/hlpbld.sql helpus.sql 是用来生成 sqlpuls 的帮助命令的，我们演示如下：

```
[ZFXDESKDB1:oracle]:/oracle>cd $ORACLE_HOME/sqlplus/admin/help
[ZFXDESKDB1:oracle]:/oracle/app/oracle/product/11.2.0/db/sqlplus/admin/help>l
total 168
-rw-r--r--    1 oracle   dba             265 Feb 16 2003  helpbld.sql
-rw-r--r--    1 oracle   dba             366 Jan 03 2011  helpdrop.sql
```

```
-rw-r--r--    1 oracle   dba           71817 Aug 16 2012  helpus.sql
-rw-r--r--    1 oracle   dba            2154 Jan 03 2011  hlpbld.sql
[ZFXDESKDB1:oracle]:/oracle/app/oracle/product/11.2.0/db/sqlplus/admin/help>more helpbld.sql
--
-- Copyright (c) Oracle Corporation 2003.  All Rights Reserved.
--
-- NAME
--   helpbld.sql
--
-- DESCRIPTION
--   Invoke and execute the script to loads the SQL*Plus HELP system and
--   upon completion, exit the SQL*Plus connection
--

@@&1/hlpbld.sql &2
exit
[ZFXDESKDB1:oracle]:/oracle/app/oracle/product/11.2.0/db/sqlplus/admin/help>sqlplus / as sysdba

SQL*Plus: Release 11.2.0.4.0 Production on Wed Jul 13 09:54:19 2016

Copyright (c) 1982, 2013, Oracle.  All rights reserved.


Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production
With the Partitioning, Real Application Clusters, Automatic Storage Management, OLAP,
Data Mining and Real Application Testing options

SYS@omflhr> ? set
SP2-0171: HELP system not available.
SYS@omflhr> @?/sqlplus/admin/help/hlpbld.sql helpus.sql

PL/SQL procedure successfully completed.


Table created.


Grant succeeded.



。。。。。。。。。。。。。。。。。。。。。。。。。。。。。


Commit complete.


PL/SQL procedure successfully completed.

SYS@omflhr> ? set

 SET
 ---

 Sets a system variable to alter the SQL*Plus environment settings
 for your current session. For example, to:
     -   set the display width for data
     -   customize HTML formatting
     -   enable or disable printing of column headings
     -   set the number of lines per page

 SET system_variable value

 where system_variable and value represent one of the following clauses:

   APPI[NFO]{OFF|ON|text}                  NEWP[AGE] {1|n|NONE}
   ARRAY[SIZE] {15|n}                      NULL text
   AUTO[COMMIT] {OFF|ON|IMM[EDIATE]|n}     NUMF[ORMAT] format
   AUTOP[RINT] {OFF|ON}                    NUM[WIDTH] {10|n}
   AUTORECOVERY {OFF|ON}                   PAGES[IZE] {14|n}
```

```
   AUTOT[RACE] {OFF|ON|TRACE[ONLY]}          PAU[SE] {OFF|ON|text}
     [EXP[LAIN]] [STAT[ISTICS]]              RECSEP {WR[APPED]|EA[CH]|OFF}
   BLO[CKTERMINATOR] {.|c|ON|OFF}            RECSEPCHAR {_|c}
   CMDS[EP] {;|c|OFF|ON}                     SERVEROUT[PUT] {ON|OFF}
   COLSEP {_|text}                             [SIZE {n | UNLIMITED}]
   CON[CAT] {.|c|ON|OFF}                       [FOR[MAT]  {WRA[PPED] |
   COPYC[OMMIT] {0|n}                           WOR[D_WRAPPED] |
   COPYTYPECHECK {ON|OFF}                       TRU[NCATED]}]
   DEF[INE] {&|c|ON|OFF}                     SHIFT[INOUT] {VIS[IBLE] |
   DESCRIBE [DEPTH {1|n|ALL}]                  INV[ISIBLE]}
     [LINENUM {OFF|ON}] [INDENT {OFF|ON}]    SHOW[MODE] {OFF|ON}
   ECHO {OFF|ON}                             SQLBL[ANKLINES] {OFF|ON}
   EDITF[ILE] file_name[.ext]                SQLC[ASE] {MIX[ED] |
   EMB[EDDED] {OFF|ON}                         LO[WER] | UP[PER]}
   ERRORL[OGGING] {ON|OFF}                   SQLCO[NTINUE] {> | text}
     [TABLE [schema.]tablename]              SQLN[UMBER] {ON|OFF}
     [TRUNCATE] [IDENTIFIER identifier]      SQLPLUSCOMPAT[IBILITY] {x.y[.z]}
   ESC[APE] {\|c|OFF|ON}                     SQLPRE[FIX] {#|c}
   ESCCHAR {@|?|%|$|OFF}                     SQLP[ROMPT] {SQL>|text}
   EXITC[OMMIT] {ON|OFF}                     SQLT[ERMINATOR] {;|c|ON|OFF}
   FEED[BACK] {6|n|ON|OFF}                   SUF[FIX] {SQL|text}
   FLAGGER {OFF|ENTRY|INTERMED[IATE]|FULL}   TAB {ON|OFF}
   FLU[SH] {ON|OFF}                          TERM[OUT] {ON|OFF}
   HEA[DING] {ON|OFF}                        TI[ME] {OFF|ON}
   HEADS[EP] {||c|ON|OFF}                    TIMI[NG] {OFF|ON}
   INSTANCE [instance_path|LOCAL]            TRIM[OUT] {ON|OFF}
   LIN[ESIZE] {80|n}                         TRIMS[POOL] {OFF|ON}
   LOBOF[FSET] {1|n}                         UND[ERLINE] {-|c|ON|OFF}
   LOGSOURCE [pathname]                      VER[IFY] {ON|OFF}
   LONG {80|n}                               WRA[P] {ON|OFF}
   LONGC[HUNKSIZE] {80|n}                    XQUERY {BASEURI text|
   MARK[UP] HTML [OFF|ON]                      ORDERING{UNORDERED|
     [HEAD text] [BODY text] [TABLE text]              ORDERED|DEFAULT}|
     [ENTMAP {ON|OFF}]                       NODE{BYVALUE|BYREFERENCE|
     [SPOOL {OFF|ON}]                            DEFAULT}|
     [PRE[FORMAT] {OFF|ON}]                  CONTEXT text}


SYS@omflhr>

SYS@omflhr> ? index

Enter Help [topic] for help.

 @             COPY          PAUSE                    SHUTDOWN
 @@            DEFINE        PRINT                    SPOOL
 /             DEL           PROMPT                   SQLPLUS
 ACCEPT        DESCRIBE      QUIT                     START
 APPEND        DISCONNECT    RECOVER                  STARTUP
 ARCHIVE LOG   EDIT          REMARK                   STORE
 ATTRIBUTE     EXECUTE       REPFOOTER                TIMING
 BREAK         EXIT          REPHEADER                TTITLE
 BTITLE        GET           RESERVED WORDS (SQL)     UNDEFINE
 CHANGE        HELP          RESERVED WORDS (PL/SQL)  VARIABLE
 CLEAR         HOST          RUN                      WHENEVER OSERROR
 COLUMN        INPUT         SAVE                     WHENEVER SQLERROR
 COMPUTE       LIST          SET                      XQUERY
 CONNECT       PASSWORD      SHOW


SYS@omflhr>
```

About Me

本文作者：小麦苗，只专注于数据库的技术，更注重技术的运用

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小麦苗分享的其它资料：http://blog.itpub.net/26736162/viewspace-1624453/

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