《Oracle DBA 工作笔记》第二章 常用工具和问题分析

1.1 BLOG 文档结构图

1.2 本文简介

建荣的新书《Oracle DBA 工作笔记》第二章的目录如下图，主要讲解了 SQL*Plus、exp/imp、expdp/impdp 以及常见的问题分析，第二章的目录如下：

第 2 章　常用工具和问题分析

下边小麦苗将自己阅读完第二章后整理的一些内容分享给大家。

1.3 第一章内容修改

1.3.1 删除数据库的几种方式

这个内容是第一章（http://blog.itpub.net/26736162/viewspace-2121930/）小麦苗列出来的，但是中间发现一个问题，就是当要删除的库是 rac 库的时候，采用 dbca -silent 静默方式删除数据库是可以的，但是使用 drop database 的方式就不行了，报错：ORA-01586: database must be mounted EXCLUSIVE and not open for this operation，这个时候需要我们关闭集群参数 cluster_database 才可以删除，命令为：alter system set cluster_database=false sid='*' scope=spfile;，所以小麦苗还是推荐静默的方式，无论建库还是删库静默方式把很多内容自动完成，不用我们做太多。

```
1、dbca 静默删库：dbca -silent -deleteDatabase -sourceDB mydb
2、SQL 窗口：
alter database close;
alter system enable restricted session;
drop database;
3、SQL 窗口：
sql > startup force mount restrict;
sql > drop database;
注意：强烈推荐第一种办法，以上 2 和 3 的办法若是 rac 库需要设置 cluster_database 为 false 后才可以执行 drop database，
命令为：alter system set cluster_database=false sid='*' scope=spfile;
```

1.4 第二章内容

1.4.1 orabase 命令

简单点说，这个命令可以打印$ORACLE_BASE 的值。

```
[ZFZHLHRDB1:oracle]:/oracle>which orabase
/oracle/app/11.2.0/grid/bin/orabase
[ZFZHLHRDB1:oracle]:/oracle>orabase
/oracle/app/oracle
[ZFZHLHRDB1:oracle]:/oracle>
```

1.4.2 SQL*Plus 的使用

1.4.2.1 登录配置

小麦苗的配置一般是这样的：

```
[ZFZHLHRDB1:oracle]:/oracle>more $ORACLE_HOME/sqlplus/admin/glogin.sql
--
-- Copyright (c) 1988, 2011, Oracle and/or its affiliates.
-- All rights reserved.
--
-- NAME
--   glogin.sql
--
-- DESCRIPTION
--   SQL*Plus global login "site profile" file
--
--   Add any SQL*Plus commands here that are to be executed when a
--   user starts SQL*Plus, or uses the SQL*Plus CONNECT command.
--
-- USAGE
--   This script is automatically run
--
set sqlprompt "_user'@'_connect_identifier> "
[ZFZHLHRDB1:oracle]:/oracle>
[ZFZHLHRDB1:oracle]:/oracle>sqlplus / as sysdba

SQL*Plus: Release 11.2.0.4.0 Production on Tue Aug 2 14:45:02 2016

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Connected to an idle instance.

SYS@test1>
```

1.4.2.2 得到 show sga 的定义语句

建荣这个章节讲的很详细，小麦苗直接列出最终的结果吧。我们运行命令 vi $ORACLE_HOME/bin/sqlplus 打开 sqlplus 文件，匹配 SGA 可以发现这么一行代码：

```
    SELECT DECODE(NULL, '', 'Total System Global Area', '')
NAME_COL_PLUS_SHOW_SGA,
           SUM(VALUE),
           DECODE(NULL, '', 'bytes', '') UNITS_COL_PLUS_SHOW_SGA
      FROM V$SGA
    UNION ALL
    SELECT NAME NAME_COL_PLUS_SHOW_SGA,
           VALUE,
           DECODE(NULL, '', 'bytes', '') UNITS_COL_PLUS_SHOW_SGA
      FROM V$SGA;
```

该行代码的结果和执行 show sga 可以得到一样的结果。

```
SYS@omflhr> show sga

Total System Global Area 1068937216 bytes
Fixed Size                  2253216 bytes
Variable Size             771755616 bytes
Database Buffers          289406976 bytes
Redo Buffers                5521408 bytes
SYS@omflhr> SELECT DECODE(NULL, '', 'Total System Global Area', '') NAME_COL_PLUS_SHOW_SGA,
  2         SUM(VALUE),
  3         DECODE(NULL, '', 'bytes', '') UNITS_COL_PLUS_SHOW_SGA
  4    FROM V$SGA
  5  UNION ALL
  6  SELECT NAME NAME_COL_PLUS_SHOW_SGA,
  7         VALUE,
  8         DECODE(NULL, '', 'bytes', '') UNITS_COL_PLUS_SHOW_SGA
  9    FROM V$SGA;

NAME_COL_PLUS_SHOW_SGA   SUM(VALUE) UNITS_COL_PLUS_
------------------------ ---------- ---------------
Total System Global Area 1068937216 bytes
Fixed Size                  2253216 bytes
Variable Size             771755616 bytes
Database Buffers          289406976 bytes
Redo Buffers                5521408 bytes
```

show sga 的官方解释：

Displays information about the current instance's System Global Area. You need SELECT ON V_$SGA object privileges otherwise you will receive a message
ORA-00942: table or view does not exist

show sga 中，各部分的含义如下：

1. **Total System Global Area：**Fixed Size、Variable Size、 Database buffers 和 Redo Buffers 的大小总和

2. **Fixed Size**：这部分是 Oracle 内部使用的一个区，包括了数据库与实例的控制信息、状态信息、字典信息等，启动时就被固定在 SGA 中，不会改变。Oracle 通过这个区找到 SGA 其他区，类似一个 SGA 各个组件的索引，里面存储了 SGA 各部分组件的信息，可以看作引导建立 SGA 的区域，不同平台和不同版本下这部分的大小可能不一样。

3. **Variable Size**：包括 Shared Pool ,Java Pool ,Large Pool,stream pool、游标区和其他结构。

4. **Database Buffers**：数据库中数据块缓冲的地方，是 SGA 中最大的地方，决定数据库性能。为 db_cache_size、db_keep_cache_size、db_recycle_cache_size、 db_nk_cache_size 的总大小，当然这是 sga_target 为 0 的情况，也就是手动 SGA 管理模式下，如果是自动 SGA 管理(sga_target>0)，则这个值根据 sga 的分配情况自动进行调整。

5. **Redo Buffers**:这部分是实际分配的 Redo log buffer 的大小，由初始化参数 log_buffer 根据 SGA 的最小分配单位 granule 向上取整得到。提供 REDO 缓冲的地方，在 OLAP 中不需要太大。在这里要额外说明一点的是，对于 v$parameter、v$sgastat、v$sga 查询值可能不一样。v$parameter 里面的值，是指用户在初始化参数文件里面设置的值，v$sgastat 是 oracle 实际分配的日志缓冲区大小（因为缓冲区的分配值实际上是离散的，也不是以 block 为最小单位进行分配的），v$sga 里面查询的值，是在 oracle 分配了日志缓冲区后，为了保护日志缓冲区，设置了一些保护页，通常我们会发现保护页大小是 8k(不同环境可能不一样)

1.4.2.3 SQL*Plus 命令设置

关于更多 SQL*Plus 的命令设置请参考：【OH】SET System Variable Summary SQLPLUS 系统变量设置：http://blog.itpub.net/26736162/viewspace-2121072/

1.4.2.4 SQL*Plus 无法正常启动

1、linux 环境需要禁用 SELinux，禁用方式：setenforce 0

2、环境变量设置不当 ,可以查看.bash_profile 或.profile 文件 ,确保有 export;切换用户;ORACLE_HOME

的值最后是没有反斜杠“/”的;还有从 windows 到 Linux 拷贝的时候是否有^M 乱码字符等问题。

1.4.2.5 使用 strace 来诊断 SQL*Plus 的登录问题

若 sqlplus 有一些特殊的问题，我们可以使用 strace 来跟踪命令，跟踪的命令很简单：

```
--------------linux 跟踪 sqlplus 进程
strace -o /tmp/output.txt -T -tt -e trace=all  sqlplus / as sysdba
------------- Unix 跟踪 sqlplus 进程
truss -dfaie -o /tmp/sched_trace.out.02271 sqlplus '/as sysdba'
```

不过生成的文件需要调用操作系统的很多函数，看起来比较云里雾里的。

1.4.3 exp/imp 系列问题

1.4.3.1 使用 query 选项

Oracle 的 exp 工具有一个 query 参数可以指定一个 where 条件来有条件地导出记录，对于不经常用这个选项的人来说，经常会遇到这样的错误：

```
LRM-00112: multiple values not allowed for parameter 'query'
EXP-00019: failed to process parameters, type 'EXP HELP=Y' for help
EXP-00000: Export terminated unsuccessfully
```

这是因为在 where 条件中一般都会有空格，而命令行下就会被释成几个命令行参数，需要用单引号或双引号将整个 where 条件括起来，就可以了，或者使用正斜杠\来对字符进行转义，windows 下和 linux 下不太一样，这个就比较繁琐了，但是有个通用的办法就是使用 parfile 来解析，这个无论是 windows 还是 linux 下都可以使用，

举个例子，我们需要导出表 test_query_lhr 中的 owner 为 SCOTT 的记录，我们可以执行：

```
exp \'/ AS SYSDBA\'  tables=test_query_lhr file=/tmp/test_query_lhr_scott.dmp query=\"
where owner=\'SCOTT\' \" log=/tmp/test_query_lhr_scott.log
```

```
[ZFZHLHRDB1:oracle]:/oracle>ORACLE_SID=raclhr1
[ZFZHLHRDB1:oracle]:/oracle>sqlplus / as sysdba

SQL*Plus: Release 11.2.0.4.0 Production on Tue Aug 2 15:18:56 2016

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```

```
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@raclhr1> create table test_query_lhr as select * from dba_tables;

Table created.

SYS@raclhr1> select count(1) from test_query_lhr where owner='SCOTT';

  COUNT(1)
----------
         4

SYS@raclhr1> exit
Disconnected from 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
[ZFZHLHRDB1:oracle]:/oracle>exp \'/ AS SYSDBA\'  tables=test_query_lhr
file=/tmp/test_query_lhr_scott.dmp query=\" where owner=\'SCOTT\' \" log=/tmp/test_query_lhr_scott.log

Export: Release 11.2.0.4.0 - Production on Tue Aug 2 15:23:08 2016

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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 Tes
Export done in ZHS16GBK character set and AL16UTF16 NCHAR character set

About to export specified tables via Conventional Path ...
. . exporting table                TEST_QUERY_LHR          4 rows exported
Export terminated successfully without warnings.
```

下边使用 parfile 的方式来导出：

```
[ZFZHLHRDB1:oracle]:/oracle>more /tmp/scottfile.par
query="where owner='SCOTT'"
[ZFZHLHRDB1:oracle]:/oracle> exp \'/ AS SYSDBA\'  tables=test_query_lhr
file=/tmp/test_query_lhr_scott_01.dmp parfile=/tmp/scottfile.par
log=/tmp/test_query_lhr_scott_01.log

Export: Release 11.2.0.4.0 - Production on Tue Aug 2 15:30:09 2016

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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 Tes
Export done in ZHS16GBK character set and AL16UTF16 NCHAR character set

About to export specified tables via Conventional Path ...
. . exporting table                TEST_QUERY_LHR          4 rows exported
Export terminated successfully without warnings.
[ZFZHLHRDB1:oracle]:/oracle>
```

1.4.3.2 得到对象的 DDL 语句

imp 工具使用 show=y log=get_ddl.sql 的方式，可以看到清晰的 ddl 脚本，同时也不会真正的执行数据导入：

```
exp  \'/ AS SYSDBA\'  tables=scott.emp  file=/tmp/exp_ddl_lhr_01.dmp  log=/tmp/exp_table.log
buffer=41943040 rows=n compress=n
```

```
imp \'/ AS SYSDBA\' file=/tmp/exp_ddl_lhr_01.dmp show=y log=/tmp/get_ddl.sql buffer=20480000  full=y
```

```
[ZFZHLHRDB1:oracle]:/oracle>exp  \'/ AS SYSDBA\'  tables=scott.emp  file=/tmp/exp_ddl_lhr_01.dmp
log=/tmp/exp_table.log  buffer=41943040  rows=n compress=n

Export: Release 11.2.0.4.0 - Production on Tue Aug 2 15:42:11 2016

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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 Tes
Export done in ZHS16GBK character set and AL16UTF16 NCHAR character set
Note: table data (rows) will not be exported

About to export specified tables via Conventional Path ...
Current user changed to SCOTT
. . exporting table                            EMP
Export terminated successfully without warnings.
[ZFZHLHRDB1:oracle]:/oracle>imp \'/ AS SYSDBA\' file=/tmp/exp_ddl_lhr_01.dmp show=y
log=/tmp/get_ddl.sql buffer=20480000  full=y

Import: Release 11.2.0.4.0 - Production on Tue Aug 2 15:42:44 2016

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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 Tes

Export file created by EXPORT:V11.02.00 via conventional path
import done in ZHS16GBK character set and AL16UTF16 NCHAR character set
. importing SYS's objects into SYS
. importing SCOTT's objects into SCOTT
 "ALTER SESSION SET CURRENT_SCHEMA= "SCOTT""
 "CREATE TABLE "EMP" ("EMPNO" NUMBER(4, 0), "ENAME" VARCHAR2(10), "JOB" VARCH"
 "AR2(9), "MGR" NUMBER(4, 0), "HIREDATE" DATE, "SAL" NUMBER(7, 2), "COMM" NUM"
 "BER(7, 2), "DEPTNO" NUMBER(2, 0))  PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRAN"
 "S 255 STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 FREELISTS 1 FREELIST "
 "GROUPS 1 BUFFER_POOL DEFAULT) TABLESPACE "USERS" LOGGING NOCOMPRESS"
 "CREATE UNIQUE INDEX "PK_EMP" ON "EMP" ("EMPNO" )  PCTFREE 10 INITRANS 2 MAX"
 "TRANS 255 STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 FREELISTS 1 FREEL"
 "IST GROUPS 1 BUFFER_POOL DEFAULT) TABLESPACE "USERS" LOGGING"
 "ALTER SESSION SET CURRENT_SCHEMA= "SCOTT""
 "ALTER TABLE "EMP" ADD  CONSTRAINT "PK_EMP" PRIMARY KEY ("EMPNO") USING INDE"
 "X PCTFREE 10 INITRANS 2 MAXTRANS 255 STORAGE(INITIAL 65536 NEXT 1048576 MIN"
 "EXTENTS 1 FREELISTS 1 FREELIST GROUPS 1 BUFFER_POOL DEFAULT) TABLESPACE "US"
 "ERS" LOGGING ENABLE "
 "ALTER TABLE "EMP" ADD CONSTRAINT "FK_DEPTNO" FOREIGN KEY ("DEPTNO") REFEREN"
 "CES "DEPT" ("DEPTNO") ENABLE NOVALIDATE"
 "ALTER TABLE "EMP" ENABLE CONSTRAINT "FK_DEPTNO""
Import terminated successfully without warnings.
[ZFZHLHRDB1:oracle]:/oracle>
```

由于格式比较混乱，直接运行会报错，建荣的书中给了一段代码来格式化：

```
[ZFZHLHRDB1:oracle]:/tmp>more /tmp/get_ddl.sql

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 Tes

Export file created by EXPORT:V11.02.00 via conventional path
import done in ZHS16GBK character set and AL16UTF16 NCHAR character set
. importing SYS's objects into SYS
. importing SCOTT's objects into SCOTT
 "ALTER SESSION SET CURRENT_SCHEMA= "SCOTT""
 "CREATE TABLE "EMP" ("EMPNO" NUMBER(4, 0), "ENAME" VARCHAR2(10), "JOB" VARCH"
 "AR2(9), "MGR" NUMBER(4, 0), "HIREDATE" DATE, "SAL" NUMBER(7, 2), "COMM" NUM"
 "BER(7, 2), "DEPTNO" NUMBER(2, 0))  PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRAN"
 "S 255 STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 FREELISTS 1 FREELIST "
 "GROUPS 1 BUFFER_POOL DEFAULT) TABLESPACE "USERS" LOGGING NOCOMPRESS"
 "CREATE UNIQUE INDEX "PK_EMP" ON "EMP" ("EMPNO" )  PCTFREE 10 INITRANS 2 MAX"
 "TRANS 255 STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 FREELISTS 1 FREEL"
```

```
 "IST GROUPS 1 BUFFER_POOL DEFAULT) TABLESPACE "USERS" LOGGING"
 "ALTER SESSION SET CURRENT_SCHEMA= "SCOTT""
 "ALTER TABLE "EMP" ADD  CONSTRAINT "PK_EMP" PRIMARY KEY ("EMPNO") USING INDE"
 "X PCTFREE 10 INITRANS 2 MAXTRANS 255 STORAGE(INITIAL 65536 NEXT 1048576 MIN"
 "EXTENTS 1 FREELISTS 1 FREELIST GROUPS 1 BUFFER_POOL DEFAULT) TABLESPACE "US"
 "ERS" LOGGING ENABLE "
 "ALTER TABLE "EMP" ADD CONSTRAINT "FK_DEPTNO" FOREIGN KEY ("DEPTNO") REFEREN"
 "CES "DEPT" ("DEPTNO") ENABLE NOVALIDATE"
 "ALTER TABLE "EMP" ENABLE CONSTRAINT "FK_DEPTNO""
Import terminated successfully without warnings.
[ZFZHLHRDB1:oracle]:/tmp>more /tmp/gettabddl.sh
awk '
  / \"BEGIN /   { N=1; }
  / \"CREATE /   { N=1; }
  / \"CREATE INDEX/   { N=1; }
  / \"CREATE UNIQUE INDEX/  { N=1; }
  / \"ALTER /   { N=1; }
  / \" ALTER /   { N=1; }
  / \"ANALYZE /   { N=1; }
  / \"GRANT /    { N=1; }
  / \"COMMENT /   { N=1; }
  / \"AUDIT /    { N=1; }
  N==1 { printf "\n/\n"; N++ }
  /\"$/ {
    if (N==0) next;
    s=index( $0, "\"" );
    ln0=length( $0 )
    if ( s!=0 ) {
      lcnt++
      if ( lcnt >= 30 ) {
        ln=substr( $0,s+1,length( substr($0,s+1))-1)
        t=index( ln, ")," )
        if ( t==0 ) { t=index( ln, ", " ) }
        if ( t==0 ) { t=index( ln, ") " ) }
        if ( t > 0 ) {
          printf "%s\n%s",substr( ln,1,t+1), substr(ln, t+2)
          lcnt=0
        }
        else {
          printf "%s", ln
          if ( ln0 < 78 ) { printf "\n" ; lcnt=0 }
        }
      }
      else {
        printf "%s",substr( $0,s+1,length( substr($0,s+1))-1 )
        if ( ln0 < 78 ) { printf "\n" ; lcnt=0 }
      }
    }
  }
  END { printf "\n/\n"}
' $* |sed '1,2d; /^$/ d;
s/STORAGE *(INI/~    STORAGE (INI/g;
s/, "/,~    "/g;
s/ (\"/~   &/g;
s/PCT[FI]/~    &/g;
s/[( ]PARTITION /~&/g;
s/) TABLESPACE/)~    TABLESPACE/g;
s/   , / ,~/g;
s/ DATAFILE  /&~/' | tr "~" "\n"
[ZFZHLHRDB1:oracle]:/tmp>
[ZFZHLHRDB1:oracle]:/tmp>ksh /tmp/gettabddl.sh  /tmp/get_ddl.sql > /tmp/gen_tabddl.sql
[ZFZHLHRDB1:oracle]:/tmp>more /tmp/gen_tabddl.sql
ALTER SESSION SET CURRENT_SCHEMA= "SCOTT"
/
CREATE TABLE "EMP"
    ("EMPNO" NUMBER(4, 0),
    "ENAME" VARCHAR2(10),
    "JOB" VARCHAR2(9),
    "MGR" NUMBER(4, 0),
    "HIREDATE" DATE,
    "SAL" NUMBER(7, 2),
    "COMM" NUMBER(7, 2),
    "DEPTNO" NUMBER(2, 0))
    PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255
    STORAGE (INITIAL 65536 NEXT 1048576 MINEXTENTS 1 FREELISTS 1 FREELIST GROUPS 1 BUFFER_POOL DEFAULT)
    TABLESPACE "USERS" LOGGING NOCOMPRESS
/
CREATE UNIQUE INDEX "PK_EMP" ON "EMP"
```

```
    ("EMPNO" )
    PCTFREE 10 INITRANS 2 MAXTRANS 255
    STORAGE (INITIAL 65536 NEXT 1048576 MINEXTENTS 1 FREELISTS 1 FREELIST GROUPS 1 BUFFER_POOL DEFAULT)
    TABLESPACE "USERS" LOGGING
/
ALTER SESSION SET CURRENT_SCHEMA= "SCOTT"
/
ALTER TABLE "EMP" ADD  CONSTRAINT "PK_EMP" PRIMARY KEY
    ("EMPNO") USING INDEX
    PCTFREE 10 INITRANS 2 MAXTRANS 255
    STORAGE (INITIAL 65536 NEXT 1048576 MINEXTENTS 1 FREELISTS 1 FREELIST GROUPS 1 BUFFER_POOL DEFAULT)
    TABLESPACE "USERS" LOGGING ENABLE
/
ALTER TABLE "EMP" ADD CONSTRAINT "FK_DEPTNO" FOREIGN KEY
    ("DEPTNO") REFERENCES "DEPT"
    ("DEPTNO") ENABLE NOVALIDATE
/
ALTER TABLE "EMP" ENABLE CONSTRAINT "FK_DEPTNO"
/
[ZFZHLHRDB1:oracle]:/tmp>
```

这样运行起来就方便多了。

1.4.3.3 常见问题

一、 EXP-00091: Exporting questionable statistics

```
[ZFZHLHRDB1:oracle]:/tmp>oerr exp 91
00091, 00000, "Exporting questionable statistics."
// *Cause:  Export was able export statistics, but the statistics may not be
//          usuable. The statistics are questionable because one or more of
//          the following happened during export: a row error occurred, client
//          character set or NCHARSET does not match with the server, a query
//          clause was specified on export, only certain partitions or
//          subpartitions were exported, or a fatal error occurred while
//          processing a table.
// *Action: To export non-questionable statistics, change the client character
//          set or NCHARSET to match the server, export with no query clause,
//          export complete tables. If desired, import parameters can be
//          supplied so that only non-questionable statistics will be imported,
//          and all questionable statistics will be recalculated.
```

该问题由于客户端的 NLS_LANG 设置有问题导致的：

1）查询数据库的字符集

```
SQL> select userenv('language') from dual;

USERENV('LANGUAGE')
----------------------------------------------------
AMERICAN_AMERICA.ZHS16GBK
```

2）设置 Linux 操作系统的 NLS_LANG 环境变量

```
[oracle@RH207 exp]$export NLS_LANG=AMERICAN_AMERICA.ZHS16GBK
```

二、 IMP-00013: only a DBA can import a file exported by another DBA

导入用户的权限不够，我们可以赋权：grant imp_full_database to user_xxx;即可。

若还是报错，可以尝试：alter user user_xxx default role all;确保查询 dba_role_privs 中的 DEFAULT_ROLE 列的值为 YES。

1.4.3.4 使用 strace 来跟踪 exp

```
strace exp n1/n1 tables=scott.emp file=a.dmp
strace -c -p 25805
```

1.4.3.5 从生成的 dmp 文件可以获取到的信息

一、 获取基本信息：导出的版本、时间、导出的用户

```
[ZFZHLHRDB1:oracle]:/tmp>strings exp_ddl_lhr_02.dmp | head -10
TEXPORT:V11.02.00  ====》版本号
DSYS    ====》使用 SYS 用户导出
RTABLES ====》基于表模式导出，RUSERS 表示基于用户模式,RENTIRE 表示基于全库模式
4096
Tue Aug 2 16:8:8 2016/tmp/exp_ddl_lhr_02.dmp====》生成的时间和文件地址
#C#G
#C#G
+00:00
BYTE
UNUSED
```

二、 获取 dmp 文件中的表信息

```
[ZFZHLHRDB1:oracle]:/tmp>strings  exp_ddl_lhr_02.dmp | grep "CREATE TABLE"|awk '{print $3}'|sed
's/"//g'
EMP ====》说明 exp_ddl_lhr_02.dmp 中只有一个 emp 表
```

三、 解析 dmp 文件生成 parfile 文件

```
[ZFZHLHRDB1:oracle]:/tmp>strings  exp_ddl_lhr_03.dmp | grep "CREATE TABLE"|awk '{print $3}'|sed
's/"//g'|awk '{ if (FNR==1) print "tables="$1 ; else print ","$1 }'
tables=DEF$_AQCALL
,DEF$_AQERROR
```

```
,DEF$_CALLDEST
,DEF$_DEFAULTDEST
,DEF$_DESTINATION
,DEF$_ERROR
,DEF$_LOB
,DEF$_ORIGIN
,DEF$_PROPAGATOR
,DEF$_PUSHED_TRANSACTIONS
,MVIEW$_ADV_INDEX
[ZFZHLHRDB1:oracle]:/tmp>
```

其实这个可以使用 UE 或 editplus 文本编辑器的列模式实现也很快。

1.4.4 expdp/impdp 系列问题

1.4.4.1 使用 query 选项

比如我们想导出 SCOTT.EMP 表中 DEPTNO=20 和 SCOTT.DEPT 表中 DNAME='SALES'的记录，我们可以在 parfile 中写：query=SCOTT.EMP:"WHERE DEPTNO=20",SCOTT.DEPT:"WHERE DNAME='SALES'"，示例如下：

```
SYS@raclhr1> select * from scott.emp where DEPTNO=20;

     EMPNO ENAME      JOB              MGR HIREDATE                 SAL       COMM     DEPTNO
---------- ---------- --------- ---------- ------------------- ---------- ---------- ----------
      7369 SMITH      CLERK           7902 1980-12-17 00:00:00        800                    20
      7566 JONES      MANAGER         7839 1981-04-02 00:00:00       2975                    20
      7788 SCOTT      ANALYST         7566 1987-04-19 00:00:00       3000                    20
      7876 ADAMS      CLERK           7788 1987-05-23 00:00:00       1100                    20
      7902 FORD       ANALYST         7566 1981-12-03 00:00:00       3000                    20

SYS@raclhr1> SELECT * FROM SCOTT.DEPT where DNAME='SALES';

    DEPTNO DNAME          LOC
---------- -------------- -------------
        30 SALES          CHICAGO

[ZFZHLHRDB1:oracle]:/oracle>more /tmp/scottfile.par
query=SCOTT.EMP:"WHERE DEPTNO=20",SCOTT.DEPT:"WHERE DNAME='SALES'"

[ZFZHLHRDB1:oracle]:/tmp>expdp \'/ AS SYSDBA\' directory=DATA_PUMP_DIR schemas=SCOTT
dumpfile=test_query_lhr_scott_02.dmp parfile=/tmp/scottfile.par log=test_query_lhr_scott_02.log

Export: Release 11.2.0.4.0 - Production on Wed Aug 3 09:32:21 2016

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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
Legacy Mode Active due to the following parameters:
Legacy Mode Parameter: "log=test_query_lhr_scott_02.log" Location: Command Line, Replaced with:
"logfile=test_query_lhr_scott_02.log"
Legacy Mode has set reuse_dumpfiles=true parameter.
Starting "SYS"."SYS_EXPORT_SCHEMA_01":  "/******** AS SYSDBA" directory=DATA_PUMP_DIR schemas=SCOTT
dumpfile=test_query_lhr_scott_02.dmp parfile=/tmp/scottfile.par logfile=test_query_lhr_scott_02.log
reuse_dumpfiles=true
Estimate in progress using BLOCKS method...
Processing object type SCHEMA_EXPORT/TABLE/TABLE_DATA
Total estimation using BLOCKS method: 192 KB
Processing object type SCHEMA_EXPORT/USER
```

```
Processing object type SCHEMA_EXPORT/SYSTEM_GRANT
Processing object type SCHEMA_EXPORT/ROLE_GRANT
Processing object type SCHEMA_EXPORT/DEFAULT_ROLE
Processing object type SCHEMA_EXPORT/PRE_SCHEMA/PROCACT_SCHEMA
Processing object type SCHEMA_EXPORT/TABLE/TABLE
Processing object type SCHEMA_EXPORT/TABLE/INDEX/INDEX
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/CONSTRAINT
Processing object type SCHEMA_EXPORT/TABLE/INDEX/STATISTICS/INDEX_STATISTICS
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/REF_CONSTRAINT
Processing object type SCHEMA_EXPORT/TABLE/STATISTICS/TABLE_STATISTICS
. . exported "SCOTT"."DEPT"                              5.859 KB       1 rows
. . exported "SCOTT"."EMP"                               8.195 KB       5 rows
. . exported "SCOTT"."SALGRADE"                          5.859 KB       5 rows
. . exported "SCOTT"."BONUS"                                 0 KB       0 rows
Master table "SYS"."SYS_EXPORT_SCHEMA_01" successfully loaded/unloaded
******************************************************************************
Dump file set for SYS.SYS_EXPORT_SCHEMA_01 is:
  /oracle/app/oracle/admin/raclhr1/dpdump/test_query_lhr_scott_02.dmp
Job "SYS"."SYS_EXPORT_SCHEMA_01" successfully completed at Wed Aug 3 09:32:34 2016 elapsed 0 00:00:12
```

1.4.4.2 使用 include

只导出 procedure,function 和含有 TEST 的序列。

```
expdp \'/ AS SYSDBA\' directory=DATA_PUMP_DIR schemas=SCOTT
dumpfile=test_include_lhr_scott_03.dmp logfile=test_include_lhr_scott_03.log
job_name=my_job_lhr include=procedure,function,sequence:"like '%TEST%'"
```

或使用 parfile 文件：

```
include=procedure,function,sequence:"like '%TEST%'"
```

或：

```
include=procedure
include=function
include=sequence:"like '%TEST%'"
```

```
[ZFZHLHRDB1:oracle]:/tmp>expdp \'/ AS SYSDBA\' directory=DATA_PUMP_DIR schemas=SCOTT
dumpfile=test_include_lhr_scott_05.dmp logfile=test_include_lhr_scott_05.log job_name=my_job_lhr
parfile=/tmp/parfile.par
Export: Release 11.2.0.4.0 - Production on Wed Aug 3 10:06:04 2016

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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
Starting "SYS"."MY_JOB_LHR":  "/******** AS SYSDBA" directory=DATA_PUMP_DIR schemas=SCOTT
dumpfile=test_include_lhr_scott_05.dmp logfile=test_include_lhr_scott_05.log job_name=my_job_lhr
parfile=/tmp/parfile.par
Estimate in progress using BLOCKS method...
Total estimation using BLOCKS method: 0 KB
Processing object type SCHEMA_EXPORT/SEQUENCE/SEQUENCE
Processing object type SCHEMA_EXPORT/FUNCTION/FUNCTION
Processing object type SCHEMA_EXPORT/PROCEDURE/PROCEDURE
Processing object type SCHEMA_EXPORT/FUNCTION/ALTER_FUNCTION
Processing object type SCHEMA_EXPORT/PROCEDURE/ALTER_PROCEDURE
Master table "SYS"."MY_JOB_LHR" successfully loaded/unloaded
******************************************************************************
Dump file set for SYS.MY_JOB_LHR is:
  /oracle/app/oracle/admin/raclhr1/dpdump/test_include_lhr_scott_05.dmp
Job "SYS"."MY_JOB_LHR" successfully completed at Wed Aug 3 10:06:10 2016 elapsed 0 00:00:05
```

1.4.4.3 得到对象的 DDL 语句

IMP 工具使用 show=y log=get_ddl.sql 的方式获取 ddl 语句，同样，impdp 也可以获取到 dmp 文件的 ddl 语句。IMPDP 工具给我们提供了 SQLFILE 的命令行选项，只获取 DDL 语句，并未真正的执行数据导入：

```
impdp hr/hr directory=mig_dir dumpfile=expdp_hr.dmp logfile=impdp_hr.log schemas=hr
sqlfile=get_ddl.sql
```

```
--expdp \'/ AS SYSDBA\' directory=DATA_PUMP_DIR schemas=SCOTT  dumpfile=exptest_sql.dmp
logfile=exp_exptest.dmp
impdp  \'/ AS SYSDBA\'  directory=DATA_PUMP_DIR dumpfile=exptest_sql.dmp  logfile=imp_exptest.log
sqlfile=exptest.sql
```

```
[ZFXDESKDB1:oracle]:/oracle>expdp \'/ AS SYSDBA\' directory=DATA_PUMP_DIR schemas=SCOTT
dumpfile=exptest_sql.dmp logfile=exp_exptest.dmp

Export: Release 11.2.0.4.0 - Production on Wed Aug 3 15:14:55 2016

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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
Starting "SYS"."SYS_EXPORT_SCHEMA_01":  "/******** AS SYSDBA" directory=DATA_PUMP_DIR schemas=SCOTT
dumpfile=exptest_sql.dmp logfile=exp_exptest.dmp
Estimate in progress using BLOCKS method...
Processing object type SCHEMA_EXPORT/TABLE/TABLE_DATA
Total estimation using BLOCKS method: 256 KB
Processing object type SCHEMA_EXPORT/USER
Processing object type SCHEMA_EXPORT/SYSTEM_GRANT
Processing object type SCHEMA_EXPORT/ROLE_GRANT
Processing object type SCHEMA_EXPORT/DEFAULT_ROLE
Processing object type SCHEMA_EXPORT/PRE_SCHEMA/PROCACT_SCHEMA
Processing object type SCHEMA_EXPORT/TABLE/TABLE
Processing object type SCHEMA_EXPORT/TABLE/INDEX/INDEX
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/CONSTRAINT
Processing object type SCHEMA_EXPORT/TABLE/INDEX/STATISTICS/INDEX_STATISTICS
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/REF_CONSTRAINT
Processing object type SCHEMA_EXPORT/TABLE/STATISTICS/TABLE_STATISTICS
. . exported "SCOTT"."DEPT"                              5.929 KB       4 rows
. . exported "SCOTT"."EMP"                               8.562 KB      14 rows
. . exported "SCOTT"."SALGRADE"                          5.859 KB       5 rows
. . exported "SCOTT"."TEST"                              5.007 KB       1 rows
. . exported "SCOTT"."BONUS"                                 0 KB       0 rows
Master table "SYS"."SYS_EXPORT_SCHEMA_01" successfully loaded/unloaded
******************************************************************************
Dump file set for SYS.SYS_EXPORT_SCHEMA_01 is:
  /oracle/app/oracle/admin/lhrdb/dpdump/exptest_sql.dmp
Job "SYS"."SYS_EXPORT_SCHEMA_01" successfully completed at Wed Aug 3 15:15:16 2016 elapsed 0 00:00:20

[ZFXDESKDB1:oracle]:/oracle>impdp  \'/ AS SYSDBA\'  directory=DATA_PUMP_DIR dumpfile=exptest_sql.dmp
logfile=imp_exptest.log sqlfile=exptest.sql

Import: Release 11.2.0.4.0 - Production on Wed Aug 3 15:16:06 2016

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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
Master table "SYS"."SYS_SQL_FILE_FULL_01" successfully loaded/unloaded
Starting "SYS"."SYS_SQL_FILE_FULL_01":  "/******** AS SYSDBA" directory=DATA_PUMP_DIR
dumpfile=exptest_sql.dmp logfile=imp_exptest.log sqlfile=exptest.sql
Processing object type SCHEMA_EXPORT/USER
Processing object type SCHEMA_EXPORT/SYSTEM_GRANT
Processing object type SCHEMA_EXPORT/ROLE_GRANT
Processing object type SCHEMA_EXPORT/DEFAULT_ROLE
Processing object type SCHEMA_EXPORT/PRE_SCHEMA/PROCACT_SCHEMA
```

```
Processing object type SCHEMA_EXPORT/TABLE/TABLE
Processing object type SCHEMA_EXPORT/TABLE/INDEX/INDEX
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/CONSTRAINT
Processing object type SCHEMA_EXPORT/TABLE/INDEX/STATISTICS/INDEX_STATISTICS
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/REF_CONSTRAINT
Processing object type SCHEMA_EXPORT/TABLE/STATISTICS/TABLE_STATISTICS
Job "SYS"."SYS_SQL_FILE_FULL_01" successfully completed at Wed Aug 3 15:16:09 2016 elapsed 0 00:00:02

[ZFXDESKDB1:oracle]:/oracle>cd /oracle/app/oracle/admin/lhrdb/dpdump/
[ZFXDESKDB1:oracle]:/oracle/app/oracle/admin/lhrdb/dpdump>more exptest.sql
-- CONNECT SYS
ALTER SESSION SET EVENTS '10150 TRACE NAME CONTEXT FOREVER, LEVEL 1';
ALTER SESSION SET EVENTS '10904 TRACE NAME CONTEXT FOREVER, LEVEL 1';
ALTER SESSION SET EVENTS '25475 TRACE NAME CONTEXT FOREVER, LEVEL 1';
ALTER SESSION SET EVENTS '10407 TRACE NAME CONTEXT FOREVER, LEVEL 1';
ALTER SESSION SET EVENTS '10851 TRACE NAME CONTEXT FOREVER, LEVEL 1';
ALTER SESSION SET EVENTS '22830 TRACE NAME CONTEXT FOREVER, LEVEL 192 ';
-- new object type path: SCHEMA_EXPORT/USER
-- CONNECT SYSTEM
 CREATE USER "SCOTT" IDENTIFIED BY VALUES
'S:268AB71B15071D81F19C6FC5041FA8F8E49397470FFE05458B8C90D9E7F8;F894844C34402B67'
     DEFAULT TABLESPACE "USERS"
     TEMPORARY TABLESPACE "TEMP"
     PASSWORD EXPIRE
     ACCOUNT LOCK;
-- new object type path: SCHEMA_EXPORT/SYSTEM_GRANT
GRANT UNLIMITED TABLESPACE TO "SCOTT";
-- new object type path: SCHEMA_EXPORT/ROLE_GRANT
 GRANT "CONNECT" TO "SCOTT";
 GRANT "RESOURCE" TO "SCOTT";
-- new object type path: SCHEMA_EXPORT/DEFAULT_ROLE
 ALTER USER "SCOTT" DEFAULT ROLE ALL;
-- new object type path: SCHEMA_EXPORT/PRE_SCHEMA/PROCACT_SCHEMA
-- CONNECT SCOTT

BEGIN
sys.dbms_logrep_imp.instantiate_schema(schema_name=>SYS_CONTEXT('USERENV','CURRENT_SCHEMA'),
export_db_name=>'LHRDB', inst_scn=>'4225469');
COMMIT;
END;
/
-- new object type path: SCHEMA_EXPORT/TABLE/TABLE
-- CONNECT SYS
CREATE TABLE "SCOTT"."DEPT"
   (    "DEPTNO" NUMBER(2,0),
        "DNAME" VARCHAR2(14 BYTE),
        "LOC" VARCHAR2(13 BYTE)
   ) SEGMENT CREATION IMMEDIATE
  PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255
 NOCOMPRESS LOGGING
  STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645
  PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1
  BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT)
  TABLESPACE "USERS" ;
CREATE TABLE "SCOTT"."EMP"
   (    "EMPNO" NUMBER(4,0),
        "ENAME" VARCHAR2(10 BYTE),
        "JOB" VARCHAR2(9 BYTE),
        "MGR" NUMBER(4,0),
        "HIREDATE" DATE,
        "SAL" NUMBER(7,2),
        "COMM" NUMBER(7,2),
        "DEPTNO" NUMBER(2,0)
   ) SEGMENT CREATION IMMEDIATE
  PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255
 NOCOMPRESS LOGGING
  STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645
  PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1
  BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT)
  TABLESPACE "USERS" ;
CREATE TABLE "SCOTT"."BONUS"
   (    "ENAME" VARCHAR2(10 BYTE),
        "JOB" VARCHAR2(9 BYTE),
        "SAL" NUMBER,
        "COMM" NUMBER
   ) SEGMENT CREATION DEFERRED
  PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255
 NOCOMPRESS LOGGING
```

```
  TABLESPACE "USERS" ;
CREATE TABLE "SCOTT"."SALGRADE"
   (    "GRADE" NUMBER,
        "LOSAL" NUMBER,
        "HISAL" NUMBER
   ) SEGMENT CREATION IMMEDIATE
  PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255
 NOCOMPRESS LOGGING
  STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645
  PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1
  BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT)
  TABLESPACE "USERS" ;
CREATE TABLE "SCOTT"."TEST"
   (    "DUMMY" VARCHAR2(1 BYTE)
   ) SEGMENT CREATION IMMEDIATE
  PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255
 NOCOMPRESS LOGGING
  STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645
  PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1
  BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT)
  TABLESPACE "USERS" ;
-- new object type path: SCHEMA_EXPORT/TABLE/INDEX/INDEX
-- CONNECT SCOTT
CREATE UNIQUE INDEX "SCOTT"."PK_DEPT" ON "SCOTT"."DEPT" ("DEPTNO")
  PCTFREE 10 INITRANS 2 MAXTRANS 255
  STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645
  PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1
  BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT)
  TABLESPACE "USERS" PARALLEL 1 ;

  ALTER INDEX "SCOTT"."PK_DEPT" NOPARALLEL;
CREATE UNIQUE INDEX "SCOTT"."PK_EMP" ON "SCOTT"."EMP" ("EMPNO")
  PCTFREE 10 INITRANS 2 MAXTRANS 255
  STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645
  PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1
  BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT)
  TABLESPACE "USERS" PARALLEL 1 ;

  ALTER INDEX "SCOTT"."PK_EMP" NOPARALLEL;
-- new object type path: SCHEMA_EXPORT/TABLE/CONSTRAINT/CONSTRAINT
-- CONNECT SYS
ALTER TABLE "SCOTT"."DEPT" ADD CONSTRAINT "PK_DEPT" PRIMARY KEY ("DEPTNO")
  USING INDEX "SCOTT"."PK_DEPT"  ENABLE;
ALTER TABLE "SCOTT"."EMP" ADD CONSTRAINT "PK_EMP" PRIMARY KEY ("EMPNO")
  USING INDEX "SCOTT"."PK_EMP"  ENABLE;
-- new object type path: SCHEMA_EXPORT/TABLE/INDEX/STATISTICS/INDEX_STATISTICS
DECLARE I_N VARCHAR2(60);
  I_O VARCHAR2(60);
  NV VARCHAR2(1);
  c DBMS_METADATA.T_VAR_COLL;
  df varchar2(21) := 'YYYY-MM-DD:HH24:MI:SS';
 stmt varchar2(300) := ' INSERT INTO "SYS"."IMPDP_STATS"
(type,version,flags,c1,c2,c3,c5,n1,n2,n3,n4,n5,n6,n7,n8,n9,n10,n11,n12,d1,cl1) VALUES
(''I'',6,:1,:2,:3,:4,:5,
:6,:7,:8,:9,:10,:11,:12,:13,NULL,:14,:15,NULL,:16,:17)';
BEGIN
  DELETE FROM "SYS"."IMPDP_STATS";
  i_n := 'PK_DEPT';
  i_o := 'SCOTT';
  EXECUTE IMMEDIATE stmt USING 2,I_N,NV,NV,I_O,4,1,4,1,1,1,0,4,NV,NV,TO_DATE('2016-07-07
22:00:11',df),NV;

  DBMS_STATS.IMPORT_INDEX_STATS('"' || i_o || '"','"' || i_n || '"',NULL,'"IMPDP_STATS"',NULL,'"SYS"');
  DELETE FROM "SYS"."IMPDP_STATS";
END;
/
```

《《《《。。。。。。。。篇幅原因，有省略,剩下的都是统计信息，生成 sqlfile 的时候也可以不用生成。。。。。。。。》》》》

1.4.4.4 Datapump 的工作原理

一般数据在导入的过程中会生成 3 类的临时表，分别为 IMPORT 表、ERR 表和 ET 表，其中只有 IMPORT 表可以查询，ERR 表和 ET 表不能访问，报 ORA-29913 错误，但可以执行 drop 操作。

TABLE_EXISTS_ACTION=REPLACE 这个选项的底层操作是 drop purge+create 的操作。

1.4.4.5 使用 trace 来跟踪

```
expdp \'/ AS SYSDBA\' directory=DATA_PUMP_DIR schemas=SCOTT
dumpfile=test_query_lhr_scott_02.dmp parfile=/tmp/scottfile.par
log=test_query_lhr_scott_02.log trace=4a0300
```

更多内容请参考：

1、【MOS】Export/Import DataPump Parameter TRACE（文档 ID 286496.1）：http://blog.itpub.net/26736162/viewspace-2085076/

2、使用隐含 Trace 参数诊断 Oracle Data Pump 故障 :http://blog.itpub.net/26736162/viewspace-2072331/

1.4.5 如何彻底停止 expdp

许多人在使用 expdp 命令时，不小心按了 CTLR+C，然后又输入 exit 命令（或者网络中断等异常现象），导致 expdp 进程不存在，但 oracle 数据库的 session 仍存在，dmp 文件也一直在增长。

处理办法

1、检查 expdp 进程是否还在

```
ps -ef | grep expdp
```

（如存在，可用 kill -9 process 命令杀掉）

2、检查 session 是否仍存在

3、把相关 session 杀掉，如无 DBA 权限

```
drop table JOBID purge;
```

（JOBID 即为 DIRECTORY，此例为 LZT_CASS1DATAJOB）

4、检查相关表及 dump 的 session

```
select * from GV$DATAPUMP_SESSION;
select * From USER_DATAPUMP_JOBS;
 DBA_DATAPUMP_JOBS;
 dba_datapump_sessions;
```

结果应该无记录

5、删除导出的 dmp 文件。如不删除，重提 expdp 命令时，会报 dmp 文件已存在

总结：查看进程、查看 session、查看表 GV$DATAPUMP_SESSION 和 USER_DATAPUMP_JOBS

1.4.5.1 我的视图

```
set line 9999
col owner_name for a10
col job_name for a25
col operation for a10
col job_mode for a10
col state for a15
col job_mode for a10
col state for a15
col osuser for a10
col "degree|attached|datapump" for a25
col session_info for a20
SELECT ds.inst_id,
       dj.owner_name,
       dj.job_name,
       dj.operation,
       dj.job_mode,
       dj.state,
       dj.degree || ',' || dj.attached_sessions || ',' ||
       dj.datapump_sessions "degree|attached|datapump",
       ds.session_type,
       s.osuser ,
       (SELECT s.SID || ',' || s.SERIAL# || ',' || p.SPID
          FROM gv$process p
         where s.paddr = p.addr
           AND s.inst_id = p.inst_id) session_info
  FROM DBA_DATAPUMP_JOBS dj --gv$datapump_job
  full outer join dba_datapump_sessions ds --gv$datapump_session
    on (dj.job_name = ds.job_name and dj.owner_name = ds.owner_name)
```

```
    left outer join gv$session s
      on (s.saddr = ds.saddr and ds.inst_id = s.inst_id)
    ORDER BY dj.owner_name, dj.job_name;
```

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
- 本文在 ITpub（http://blog.itpub.net/26736162）、博客园(http://www.cnblogs.com/lhrbest)和个人微信公众号（xiaomaimiaolhr）上有同步更新，推荐 pdf 文件阅读或博客园地址阅读
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