Author – *A.Kishore*
*http://appsdba.info*

Insanity: doing the same thing over and over again and expecting different results. – Nice Proverb

No back up was taken after reset logs. How to recover the database?

Solution – It's possible, I have tried with Oracle 10g. Before Oracle 10g we may have to reset the incarnation, then we should be able to recover the database.


Spongebob - Today I am going to teach restoration of database
Patrick – Show me how! Show me how!

RMAN SID = RECO
TARGET SID = TEST

Check that our target system is running on archive log

```
SQL> archive log list;
Database log mode              Archive Mode
Automatic archival             Enabled
Archive destination            USE_DB_RECOVERY_FILE_DEST
Oldest online log sequence     1
Next log sequence to archive   2
Current log sequence           2
```

RMAN Setup and Configuration
---

Configure the Database for RMAN Operations

Set Up the Database User in the target database - on the TEST database

```
create user backup_admin identified by backup_admin default tablespace users;
```

grant sysdba to backup_admin;

Creating the Recovery Catalog User - on RECO database

create user rcat_user identified by rcat_user default tablespace users;

grant connect,resource,recovery_catalog_owner to rcat_user;

Creating the Recovery Catalog Schema Objects

Step 1. Connect to the recover catalog with RMAN:

rman catalog=rcat_user/rcat_user@reco

Step 2. Issue the create catalog command from the RMAN prompt:

create catalog;

Register your database in the recovery catalog

Step 1: Using RMAN, sign into the database and the recover catalog at the same time

rman catalog=rcat_user/rcat_user@RECO target=backup_admin/backup_admin@test

Step 2: Register the database with the recovery catalog

RMAN> register database

Take the backup

rman catalog=rcat_user/rcat_user@RECO target=backup_admin/backup_admin@test
RMAN> backup database plus archivelog;

SQL> create table test( t number);

Table created.

SQL> set time on
09:47:27 SQL>
09:47:28 SQL> insert into test values(1);

1 row created.

09:47:42 SQL> commit;

Commit complete.

09:47:45 SQL>
09:47:46 SQL>
09:47:46 SQL>
09:47:46 SQL> create table test1(t number);

Table created.

09:47:56 SQL> insert into test1 values(2);

1 row created.

09:48:05 SQL> commit;

Commit complete.

09:49:04 SQL> drop table test;

Table dropped.

09:49:29 SQL> drop table test1;

Table dropped.

Let's recover our database – 9:48:20

- Check the current incarnation of the database

```
C:\>rman catalog=rcat_user/rcat_user@RECO target=backup_admin/backup_admin@test

Recovery Manager: Release 10.2.0.1.0 - Production on Fri Apr 17 09:59:21 2009

Copyright (c) 1982, 2005, Oracle.  All rights reserved.

connected to target database: TEST (DBID=1982397231)
connected to recovery catalog database

RMAN> list incarnation of database;


List of Database Incarnations
DB Key  Inc Key DB Name  DB ID            STATUS  Reset SCN  Reset Time
------- ------- -------- ---------------- --- ---------- ----------
1       8       TEST     1982397231       PARENT  1          30-AUG-05
1       2       TEST     1982397231       CURRENT 534907     15-APR-09
```

Steps – TEST DB

Shutdown the database
Start the database in mount stage

```
09:59:30 SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
10:00:20 SQL> startup nomount
ORACLE instance started.

Total System Global Area  167772160 bytes
Fixed Size                  1247876 bytes
Variable Size              75498876 bytes
Database Buffers           83886080 bytes
Redo Buffers                7139328 bytes
```

Steps – RMAN

```
rman catalog=rcat_user/rcat_user@RECO target=backup_admin/backup_admin@test
restore controlfile from autobackup;
restore database;
recover database until time "to_date('04/17/09 9:48:20','MM/DD/YY HH24:MI:SS')";
alter database open resetlogs
```

```
C:\>rman catalog=rcat_user/rcat_user@RECO
target=backup_admin/backup_admin@test

Recovery Manager: Release 10.2.0.1.0 - Production on Fri Apr 17 10:04:14 2009

Copyright (c) 1982, 2005, Oracle.  All rights reserved.
```

connected to target database: TEST (not mounted)
connected to recovery catalog database

RMAN> restore controlfile from autobackup;

Starting restore at 17-APR-09
allocated channel: ORA_DISK_1
channel ORA_DISK_1: sid=155 devtype=DISK

recovery area destination: C:\oracle\product\10.2.0/flash_recovery_area
database name (or database unique name) used for search: TEST
channel ORA_DISK_1: autobackup found in the recovery area
channel ORA_DISK_1: autobackup found:
C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\AUTOBACKUP\
2009_04_17\O1_MF_S_684409406_4Y
KDFJFL_.BKP
channel ORA_DISK_1: control file restore from autobackup complete
output filename=C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\CONTROL01.CTL
output filename=C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\CONTROL02.CTL
output filename=C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\CONTROL03.CTL
Finished restore at 17-APR-09

RMAN> restore database;

Starting restore at 17-APR-09
using channel ORA_DISK_1

channel ORA_DISK_1: starting datafile backupset restore
channel ORA_DISK_1: specifying datafile(s) to restore from backup set
restoring datafile 00001 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\SYSTEM01.DBF
restoring datafile 00002 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\UNDOTBS01.DBF
restoring datafile 00003 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\SYSAUX01.DBF
restoring datafile 00004 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\USERS01.DBF
restoring datafile 00005 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\EXAMPLE01.DBF
restoring datafile 00006 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\MYTEST01.DBF

channel ORA_DISK_1: reading from backup piece
C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\BACKUPSET\20
09_04_17\O1_MF_NNNDF_T
AG20090417T094124_4YKD9P5Q_.BKP
channel ORA_DISK_1: restored backup piece 1
piece
handle=C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\BACKUP
SET\2009_04_17\O1_MF_NNNDF_TAG20090417T094124_4YKD9P5Q_.BKP t
ag=TAG20090417T094124
channel ORA_DISK_1: restore complete, elapsed time: 00:01:36
Finished restore at 17-APR-09

RMAN> recover database until time "to_date('04/17/09 9:48:20','MM/DD/YY
HH24:MI:SS')";

Starting recover at 17-APR-09
RMAN-00571:
===========================================================
RMAN-00569: =============== ERROR MESSAGE STACK FOLLOWS
===============
RMAN-00571:
===========================================================
RMAN-03002: failure of recover command at 04/17/2009 10:13:09
ORA-01507: database not mounted

RMAN> alter database mount;

database mounted
released channel: ORA_DISK_1

RMAN> recover database until time "to_date('04/17/09 9:48:20','MM/DD/YY
HH24:MI:SS')";

Starting recover at 17-APR-09
Starting implicit crosscheck backup at 17-APR-09
allocated channel: ORA_DISK_1
channel ORA_DISK_1: sid=155 devtype=DISK
Crosschecked 3 objects
Finished implicit crosscheck backup at 17-APR-09

Starting implicit crosscheck copy at 17-APR-09
using channel ORA_DISK_1
Finished implicit crosscheck copy at 17-APR-09

searching for all files in the recovery area
cataloging files...
cataloging done

List of Cataloged Files
=======================
File Name:
C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\AUTOBACKUP\
2009_04_17\O1_MF_S_684409406_4YKDFJFL_.BKP

using channel ORA_DISK_1

starting media recovery

archive log thread 1 sequence 19 is already on disk as file
C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\ARCHIVELOG\2
009_04_1
7\O1_MF_1_19_4YKDF9H0_.ARC
archive log thread 1 sequence 20 is already on disk as file
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\REDO01.LOG
archive log
filename=C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\ARCHI
VELOG\2009_04_17\O1_MF_1_19_4YKDF9H0_.ARC thread=1 seq
uence=19
archive log filename=C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\REDO01.LOG
thread=1 sequence=20
media recovery complete, elapsed time: 00:00:07
Finished recover at 17-APR-09

RMAN> alter database open resetlogs;

RMAN> list incarnation of database;

List of Database Incarnations

| DB Key | Inc Key | DB Name | DB ID | STATUS | Reset SCN | Reset Time |
|---|---|---|---|---|---|---|
| 1 | 8 | TEST | 1982397231 | PARENT | 1 | 30-AUG-05 |
| 1 | 2 | TEST | 1982397231 | PARENT | 534907 | 15-APR-09 |
| 1 | 1478 | TEST | 1982397231 | CURRENT | 647072 | 17-APR-09 |

Recovery completed:

10:17:08 SQL> connect scott/tiger@test
Connected.

10:17:20 SQL> select * from test;

```
         T
----------
         1
         2
```

10:17:24 SQL> select * from test1;

no rows selected

Patrick, see I have restored the database. Hi He He

**NOTE:**

The *resetlogs* option used to open the database in the above example, will create a new incarnation of the database. It is critical to take a complete backup of the database after performing a resetlogs.

Spongebob as usual forgot to take the backup after resetlogs

10:17:28 SQL> create table test2(t number);

Table created.

10:30:19 SQL> insert into test2 values(1);

1 row created.

10:30:26 SQL> commit;

Commit complete.

10:30:29 SQL>
10:30:29 SQL>
10:30:30 SQL>
10:30:30 SQL>
10:30:55 SQL> drop table test2;

Table dropped.

Patric .. I will restore without taking the backups after the reset

Lets try to restore the database till 10:30:30

09:59:30 SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
10:00:20 SQL> startup nomount
ORACLE instance started.

Total System Global Area 167772160 bytes
Fixed Size 1247876 bytes
Variable Size 75498876 bytes
Database Buffers 83886080 bytes
Redo Buffers 7139328 bytes

Steps – RMAN

rman catalog=rcat_user/rcat_user@RECO target=backup_admin/backup_admin@test
**restore controlfile from autobackup;**
restore database;
alter database mount;
recover database until time "to_date('04/17/09 10:30:30','MM/DD/YY HH24:MI:SS')";
alter database open resetlogs

C:\>rman catalog=rcat_user/rcat_user@RECO
target=backup_admin/backup_admin@test

```
SQL> connect scott/tiger@test
Connected.
SQL> select tname from tab;

TNAME
------------------------------
DEPT
EMP
BONUS
SALGRADE
TEST
TEST1
TEST2

7 rows selected.

SQL> select * from test2;

         T
----------
         1

C:\>
C:\>
C:\>rman catalog=rcat_user/rcat_user@RECO
target=backup_admin/backup_admin@test

Recovery Manager: Release 10.2.0.1.0 - Production on Fri Apr 17 14:37:08 2009

Copyright (c) 1982, 2005, Oracle.  All rights reserved.

connected to target database: TEST (not mounted)
connected to recovery catalog database

RMAN> restore controlfile from autobackup;

Starting restore at 17-APR-09
allocated channel: ORA_DISK_1
channel ORA_DISK_1: sid=155 devtype=DISK

recovery area destination: C:\oracle\product\10.2.0/flash_recovery_area
database name (or database unique name) used for search: TEST
channel ORA_DISK_1: autobackup found in the recovery area
```

```
channel ORA_DISK_1: autobackup found:
C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\AUTOBACKUP\
2009_04_17\O1_MF_N_684411334_4Y
KG9ROR_.BKP
channel ORA_DISK_1: control file restore from autobackup complete
output filename=C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\CONTROL01.CTL
output filename=C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\CONTROL02.CTL
output filename=C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\CONTROL03.CTL
Finished restore at 17-APR-09

RMAN> restore database;

Starting restore at 17-APR-09
using channel ORA_DISK_1

channel ORA_DISK_1: starting datafile backupset restore
channel ORA_DISK_1: specifying datafile(s) to restore from backup set
restoring datafile 00001 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\SYSTEM01.DBF
restoring datafile 00002 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\UNDOTBS01.DBF
restoring datafile 00003 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\SYSAUX01.DBF
restoring datafile 00004 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\USERS01.DBF
restoring datafile 00005 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\EXAMPLE01.DBF
restoring datafile 00006 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\MYTEST01.DBF
channel ORA_DISK_1: reading from backup piece
C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\BACKUPSET\20
09_04_17\O1_MF_NNNDF_T
AG20090417T094124_4YKD9P5Q_.BKP
channel ORA_DISK_1: restored backup piece 1
piece
handle=C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\BACKUP
SET\2009_04_17\O1_MF_NNNDF_TAG20090417T094124_4YKD9P5Q_.BKP t
ag=TAG20090417T094124
channel ORA_DISK_1: restore complete, elapsed time: 00:01:25
Finished restore at 17-APR-09

RMAN> recover database until time "to_date('04/17/09 10:30:30','MM/DD/YY
HH24:MI:SS')";
```

Starting recover at 17-APR-09
RMAN-00571:
===========================================================
RMAN-00569: =============== ERROR MESSAGE STACK FOLLOWS
===============
RMAN-00571:
===========================================================
RMAN-03002: failure of recover command at 04/17/2009 14:39:38
ORA-01507: database not mounted

RMAN> alter database mount;

database mounted
released channel: ORA_DISK_1

RMAN> recover database until time "to_date('04/17/09 10:30:30','MM/DD/YY
HH24:MI:SS')";

Starting recover at 17-APR-09
Starting implicit crosscheck backup at 17-APR-09
allocated channel: ORA_DISK_1
channel ORA_DISK_1: sid=155 devtype=DISK
Crosschecked 4 objects
Finished implicit crosscheck backup at 17-APR-09

Starting implicit crosscheck copy at 17-APR-09
using channel ORA_DISK_1
Finished implicit crosscheck copy at 17-APR-09

searching for all files in the recovery area
cataloging files...
cataloging done

List of Cataloged Files
=======================
File Name:
C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\AUTOBACKUP\
2009_04_17\O1_MF_N_684411334_4YKG9ROR_.BKP

using channel ORA_DISK_1

starting media recovery

archive log thread 1 sequence 19 is already on disk as file
C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\ARCHIVELOG\2
009_04_1
7\O1_MF_1_19_4YKG8MKT_.ARC
archive log thread 1 sequence 20 is already on disk as file
C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\ARCHIVELOG\2
009_04_1
7\O1_MF_1_20_4YKG8FJV_.ARC
archive log thread 1 sequence 1 is already on disk as file
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\REDO01.LOG
archive log
filename=C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\ARCHI
VELOG\2009_04_17\O1_MF_1_19_4YKG8MKT_.ARC thread=1 seq
uence=19
archive log
filename=C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST\ARCHI
VELOG\2009_04_17\O1_MF_1_20_4YKG8FJV_.ARC thread=1 seq
uence=20
archive log filename=C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST\REDO01.LOG
thread=1 sequence=1
media recovery complete, elapsed time: 00:00:10
Finished recover at 17-APR-09

RMAN> alter database open resetlogs
2> /

RMAN-00571:
===========================================================
RMAN-00569: =============== ERROR MESSAGE STACK FOLLOWS
===============
RMAN-00571:
===========================================================
RMAN-00558: error encountered while parsing input commands
RMAN-01006: error signalled during parse
RMAN-02001: unrecognized punctuation symbol "/"

RMAN> alter database open resetlogs;

database opened
new incarnation of database registered in recovery catalog
starting full resync of recovery catalog
full resync complete

Author – *A.Kishore*
*http://appsdba.info*

SQL> select * from test2;

```
         T
----------
         1
```

I have done it again …

http://forums11.itrc.hp.com/service/forums/questionanswer.do?admit=109447626+1239985178932+28353475&threadId=653460

Before Oracle 10g

Now I configured a recovery catalog on a different system and backup/recovery is succuss.
I could do same recovery multiple times using rman/dp.
To redo the recovery after reset logs,
From RMAN>list incarnation of database;
RMAN>reset database to incarnation <number>;

Then SQL>shutdown immediate;
SQL>startup nomount;

Restored control files only DP GUI.

Restored and recovered from DP/GUI all the items (recover until option).

I could do this multiple times.

So, Maintaining a Recovery catalog look like easy and recommended method.

Thanks for every one again.