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How to Recover lost online redo logs ?

If you lose the current online redo log, then you will not be able to recover the information in that online redo log. This is one reason why redo logs should be multiplexed. If it is multiplexed, you will have a copy of the online redo log. Let's assume that your online redo log group #1 has two members, redo01a.log and redo01b.log. If redo01a.log is missing, simply shutdown the database and copy redo01b.log and rename it to redo01a.log. You should be able to start the database.

If you have not multiplexed your online redo logs, then you are only left with incomplete recovery. Your steps are as follows:

1. SHUTDOWN ABORT
2. STARTUP MOUNT
3. RECOVER DATABASE UNTIL CANCEL;
4. When you have applied any archived redo logs, then reply CANCEL to stop the recovery process.
5. ALTER DATABASE OPEN RESETLOGS;

The last step will recreate your missing log files. Any transactions in those missing log files that were not written to disk are now lost. Any time you open with RESETLOGS, make sure you shutdown the database and take a good backup.

If it is multiplexed then replace the lost one with the available one else restore it from backup. Here I am using RMAN

Note : RMAN will never take the backup of RMAN logs

RMAN SID = RECO
TARGET SID = TEST5

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
```

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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@test5
```

Step 2: Register the database with the recovery catalog

```
RMAN> register database  
RMAN> show all;  
RMAN> CONFIGURE CONTROLFILE AUTOBACKUP ON;  
RMAN> backup database plus archivelog;
```

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```
run
{
backup database plus archivelog;
backup current controlfile;
}
```

```
-- Add some records
```

```
SQL> insert into test values(3);
```

```
1 row created.
```

```
SQL> commit;
```

```
Commit complete.
```

```
C:\>sqlplus scott/tiger@test5
```

```
SQL*Plus: Release 10.2.0.1.0 - Production on Wed Apr 22 15:00:02 2009
```

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

```
Connected to:
```

```
Oracle Database 10g Enterprise Edition Release 10.2.0.1.0 - Production  
With the Partitioning, OLAP and Data Mining options
```

```
SQL> exit
```

```
Disconnected from Oracle Database 10g Enterprise Edition Release 10.2.0.1.0 -  
Production  
With the Partitioning, OLAP and Data Mining options
```

```
C:\>sqlplus "sys/oracle@test5 as sysdba"
```

```
SQL*Plus: Release 10.2.0.1.0 - Production on Wed Apr 22 15:00:05 2009
```

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

```
Connected to:
```

```
Oracle Database 10g Enterprise Edition Release 10.2.0.1.0 - Production  
With the Partitioning, OLAP and Data Mining options
```

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```
SQL> shutdown abort
ORACLE instance shut down.
SQL> startup
ORACLE instance started.
```

```
Total System Global Area 167772160 bytes
Fixed Size          1247876 bytes
Variable Size       79693180 bytes
Database Buffers    79691776 bytes
Redo Buffers        7139328 bytes
Database mounted.
ORA-00313: open failed for members of log group 1 of thread 1
ORA-00312: online log 1 thread 1:
'C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST5\REDO01.LOG'
ORA-27041: unable to open file
OSD-04002: unable to open file
O/S-Error: (OS 2) The system cannot find the file specified.
```

```
SQL>
```

```
C:\>rman catalog=rcat_user/rcat_user@RECO
target=backup_admin/backup_admin@test5
```

Recovery Manager: Release 10.2.0.1.0 - Production on Wed Apr 22 13:41:02 2009

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```
connected to target database: TEST5 (not mounted)
connected to recovery catalog database
```

```
RMAN> restore controlfile;
```

```
Starting restore at 22-APR-09
allocated channel: ORA_DISK_1
channel ORA_DISK_1: sid=156 devtype=DISK
```

```
channel ORA_DISK_1: starting datafile backupset restore
channel ORA_DISK_1: restoring control file
channel ORA_DISK_1: reading from backup piece
C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST5\AUTOBACKUP
\2009_04_22\O1_MF_S_684
859432_4YZ3WTC8_.BKP
```

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```
channel ORA_DISK_1: restored backup piece 1
piece
handle=C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST5\AUTOB
ACKUP\2009_04_22\O1_MF_S_684859432_4YZ3WTC8_.BKP tag=TAG20090
422T144352
channel ORA_DISK_1: restore complete, elapsed time: 00:00:03
output
filename=C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST5\CONTROL01.CTL
output
filename=C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST5\CONTROL02.CTL
output
filename=C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST5\CONTROL03.CTL
Finished restore at 22-APR-09
```

```
RMAN> restore database;
```

```
Starting restore at 22-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\TEST5\SYSTEM01.DBF
restoring datafile 00002 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST5\UNDOTBS01.DBF
restoring datafile 00003 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST5\SYS_AUX01.DBF
restoring datafile 00004 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST5\USERS01.DBF
restoring datafile 00005 to
C:\ORACLE\PRODUCT\10.2.0\ORADATA\TEST5\EXAMPLE01.DBF
channel ORA_DISK_1: reading from backup piece
C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST5\BACKUPSET\2
009_04_22\O1_MF_NNDF_
TAG20090422T144216_4YZ3SSFN_.BKP
channel ORA_DISK_1: restored backup piece 1
piece
handle=C:\ORACLE\PRODUCT\10.2.0\FLASH_RECOVERY_AREA\TEST5\BACKU
PSET\2009_04_22\O1_MF_NNDF_TAG20090422T144216_4YZ3SSFN_.BKP
tag=TAG20090422T144216
channel ORA_DISK_1: restore complete, elapsed time: 00:01:06
Finished restore at 22-APR-09
```

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```
RMAN> alter database mount;
```

```
database mounted  
released channel: ORA_DISK_1
```

```
RMAN> recover database until logseq 5;
```

```
Starting recover at 22-APR-09  
using channel ORA_DISK_1
```

```
starting media recovery  
media recovery complete, elapsed time: 00:00:06
```

```
Finished recover at 22-APR-09
```

```
RMAN> alter database open resetlogs;
```

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

```
SQL> connect scott/tiger@test5
```

```
Connected.
```

```
SQL> select * from test;
```

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

The data stored in the redo log file is lost, that is reason we should always multiplex the redo logfile