**19** **Oracle Control File and Redolog File**

Every Oracle Database has a **control file**, which is a small binary file that records the physical structure of the database. The control file includes:

* The database name and Checkpoint information
* Names and locations of associated datafiles and redo log files
* The timestamp of the database creation
* The current log sequence number
* RMAN backup information
* While installation 2 control files are created.
* select name from v$controlfile;

**Multiplexing Control File:**

* Having multiple controlfile helps. when one control file lost we can operate database with another controlfile.
* Keep controlfiles in different location and add the locations in pfile or spfile.

**SQL>** show parameter control\_files

**SQL>**ALTER SYSTEM set CONTROL\_FILES='/DATA /KGKDB/control01.ctl','/DATA /KGKDB/control02.ctl' SCOPE=SPFILE;

**SQL>**SHUT IMMEDIATE

* Cp control101.ctl /data/mouli/control102.crl
* **SQL>**startup
* Select name from v$controlfile;

**Control File Trace:**

* alter database backup control file to trace as ‘/prod/hyd/mouli.ctl’;
* It has sections
* **RESETLOGS**
* **NORESETLOGS**
* When creating a control file in Oracle, **RESETLOGS** indicates a new database incarnation and resets redo-log sequences, while **NORESETLOGS** signifies that the database should use existing redo-logs and maintain its current incarnation.

**How to recreate the CONTROL FILE & at what situations we need to recreate the control file**

1. Loss of control file.
2. Change of db name (**SET - RESETLOGS**) or **NID**
3. Loss of redolog files.
4. Change of database parameters with **NR.** (**REUSE – NORESETLOGS**)

* **MAX LOG FILES**
* **MAX LOG MEMBERS**
* **MAX LOG HISTORY**
* **MAX DATAFILES**
* **MAX INSTANCES**

**IF Control File Is Available & Want To Change Database Name:**

* Setting new name for db and reusing existing controlfile.
* Change db name in pfile and pfile name also with new name.
* Export env with new db name

**Script**

* Startup nomount

CREATE CONTROLFILE REUSE SET DATABASE "JMS" RESETLOGS ARCHIVELOG

MAXLOGFILES 16

MAXLOGMEMBERS 2

MAXDATAFILES 30

MAXINSTANCES 1

MAXLOGHISTORY 292

LOGFILE

GROUP 1 '/prod/ramtst/oradata/redo\_01.log' SIZE 50M BLOCKSIZE 512,

GROUP 2 '/prod/ramtst/oradata/redo\_02.log' SIZE 50M BLOCKSIZE 512,

GROUP 3 '/prod/ramtst/oradata/redo\_03.log' SIZE 50M BLOCKSIZE 512

-- STANDBY LOGFILE

DATAFILE

'/prod/ramtst/oradata/system01.dbf',

'/prod/ramtst/oradata/sysaux01.dbf',

'/prod/ramtst/oradata/undotbs01.dbf',

'/prod/ramtst/oradata/users01.dbf'

CHARACTER SET UTF8;

* RMAN> RECOVER DATABASE;
* alter database open resetlogs;

**IF control File Is lost:**

* Take the controlfile trace or create the script.

**Script**

* Startup nomount

CREATE CONTROLFILE DATABASE "JMS" NORESETLOGS ARCHIVELOG

MAXLOGFILES 16

MAXLOGMEMBERS 2

MAXDATAFILES 30

MAXINSTANCES 1

MAXLOGHISTORY 292

LOGFILE

GROUP 1 '/prod/ramtst/oradata/redo\_01.log' SIZE 50M BLOCKSIZE 512,

GROUP 2 '/prod/ramtst/oradata/redo\_02.log' SIZE 50M BLOCKSIZE 512,

GROUP 3 '/prod/ramtst/oradata/redo\_03.log' SIZE 50M BLOCKSIZE 512

-- STANDBY LOGFILE

DATAFILE

'/prod/ramtst/oradata/system01.dbf',

'/prod/ramtst/oradata/sysaux01.dbf',

'/prod/ramtst/oradata/undotbs01.dbf',

'/prod/ramtst/oradata/users01.dbf'

CHARACTER SET UTF8;

* SQL>recover database;(**IF ASKS FOR RECOVERY**)
* alter database open;

**Loss of REDOLOG Files:**

* Take controlfile trace.
* Startup nomount

CREATE CONTROLFILE reuse DATABASE "RAMTST" RESETLOGS ARCHIVELOG

MAXLOGFILES 16

MAXLOGMEMBERS 2

MAXDATAFILES 30

MAXINSTANCES 1

MAXLOGHISTORY 292

LOGFILE

GROUP 1 '/prod/ramtst/oradata/redo\_01.log' SIZE 50M BLOCKSIZE 512,

GROUP 2 '/prod/ramtst/oradata/redo\_02.log' SIZE 50M BLOCKSIZE 512,

GROUP 3 '/prod/ramtst/oradata/redo\_03.log' SIZE 50M BLOCKSIZE 512

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DATAFILE

'/prod/ramtst/oradata/system01.dbf',

'/prod/ramtst/oradata/sysaux01.dbf',

'/prod/ramtst/oradata/undotbs01.dbf',

'/prod/ramtst/oradata/users01.dbf'

CHARACTER SET UTF8;

* alter database open resetlogs;