

REDO LOG FILES

(Cap.7)

- 1) Informatii despre fisierele de log si starea lor

SQL> desc v\$logfile

Name	Null?	Type
GROUP#		NUMBER
STATUS		VARCHAR2(7)
TYPE		VARCHAR2(7)
MEMBER		VARCHAR2(513)

SQL> select * from v\$logfile;

GROUP#	STATUS	TYPE	MEMBER
3	STALE	ONLINE	F:\ORA10G_DB\PRODUCT\10.2.0\ORADATA\UPB\REDO03.LOG
2	STALE	ONLINE	F:\ORA10G_DB\PRODUCT\10.2.0\ORADATA\UPB\REDO02.LOG
1		ONLINE	F:\ORA10G_DB\PRODUCT\10.2.0\ORADATA\UPB\REDO01.LOG

- 2) Informatii legate de modul de lucru al bazei de date (cu arhivare sau fara arhivare a fisierelor de log, data cand au fost resetate fisierele de log, etc.)

SQL> desc v\$database

Name	Null?	Type
DBID		NUMBER
NAME		VARCHAR2(9)
CREATED		DATE
RESETLOGS_CHANGE#		NUMBER
RESETLOGS_TIME		DATE
PRIOR_RESETLOGS_CHANGE#		NUMBER
PRIOR_RESETLOGS_TIME		DATE
LOG_MODE		VARCHAR2(12)
CHECKPOINT_CHANGE#		NUMBER
ARCHIVE_CHANGE#		NUMBER
CONTROLFILE_TYPE		VARCHAR2(7)
CONTROLFILE_CREATED		DATE
CONTROLFILE_SEQUENCE#		NUMBER
CONTROLFILE_CHANGE#		NUMBER
CONTROLFILE_TIME		DATE
OPEN_RESETLOGS		VARCHAR2(11)
VERSION_TIME		DATE
OPEN_MODE		VARCHAR2(10)
PROTECTION_MODE		VARCHAR2(20)
PROTECTION_LEVEL		VARCHAR2(20)
REMOTE_ARCHIVE		VARCHAR2(8)
ACTIVATION#		NUMBER
DATABASE_ROLE		VARCHAR2(16)
ARCHIVELOG_CHANGE#		NUMBER

SWITCHOVER_STATUS	VARCHAR2(18)
DATAGUARD_BROKER	VARCHAR2(8)
GUARD_STATUS	VARCHAR2(7)
SUPPLEMENTAL_LOG_DATA_MIN	VARCHAR2(3)
SUPPLEMENTAL_LOG_DATA_PK	VARCHAR2(3)
SUPPLEMENTAL_LOG_DATA_UI	VARCHAR2(3)
FORCE_LOGGING	VARCHAR2(3)

SQL> select name,log_mode, resetlogs_time from v\$database;

NAME	LOG_MODE	RESETLOGS
UPB	NOARCHIVELOG	13-FEB-11

3) Informatii legate de starea instantei, a grupului current si a sevenetei curente

SQL> desc v\$thread

Name	Null?	Type
THREAD#		NUMBER
STATUS		VARCHAR2(6)
ENABLED		VARCHAR2(8)
GROUPS		NUMBER
INSTANCE		VARCHAR2(16)
OPEN_TIME		DATE
CURRENT_GROUP#		NUMBER
SEQUENCE#		NUMBER
CHECKPOINT_CHANGE#		NUMBER
CHECKPOINT_TIME		DATE
ENABLE_CHANGE#		NUMBER
ENABLE_TIME		DATE
DISABLE_CHANGE#		NUMBER
DISABLE_TIME		DATE

SQL> select groups, current_group#, sequence#, instance, status from v\$thread;

GROUPS	CURRENT_GROUP#	SEQUENCE#	INSTANCE	STATUS
3	1	872	upb	OPEN

4) Informatii despre gupuri si membri in cadrul grupurilor

SQL> desc v\$log

Name	Null?	Type
GROUP#		NUMBER
THREAD#		NUMBER
SEQUENCE#		NUMBER
BYTES		NUMBER
MEMBERS		NUMBER
ARCHIVED		VARCHAR2(3)

STATUS	VARCHAR2(16)
FIRST_CHANGE#	NUMBER
FIRST_TIME	DATE

SQL> select group#, members,bytes, archived, status from v\$log;

GROUP#	MEMBERS	BYTES	ARC	STATUS
1	1	52428800	NO	CURRENT
2	1	52428800	NO	INACTIVE
3	1	52428800	NO	INACTIVE

5) Adaugarea unui membru la un grup (adaugarea unui nou fisier de log)

SQL> alter database add logfile member 'F:\temp\log2.rdo' to group 1;
Database altered.

6) Resetarea unui grup dintr-un fisier de log(care nu este grup curent)

SQL> alter database clear logfile group 2 ;
Database altered.

7) Relocarea unui fisier de log cu baza de date online (trebuie ca fisierul sa nu fie in grupul curent si sa existe o copie in noua locatie)

SQL> alter database rename file 'E:\temp\log2.rdo' to 'E:\temp1\log2.rdo';
Database altered.

Observatii:

- ✓ Daca fisierul face parte din grupul curent, se genereaza eroarea:
ERROR at line 1:
ORA-01511: error in renaming log/data files
ORA-01621: cannot rename member of current log if database is open
ORA-00312: online log 1 thread 1:
F:\ORA10G_DB\PRODUCT\10.2.0\ORADATA\UPB\REDO01.LOG'
ORA-00312: online log 1 thread 1: 'E:\TEMP\LOG2.RDO'
In acest caz se face un switch pe urmatorul grup, apoi se relocheaza fisierul respectiv.

- ✓ Daca fisierul nu a fost copiat deja in noua locatie se genereaza eroarea:
ERROR at line 1:
ORA-01511: error in renaming log/data files
ORA-01512: error renaming log file E:\TEMP\LOG2.RDO - new file
F:\temp1\log2.rdo not found
ORA-27041: unable to open file
OSD-04002: unable to open file
O/S-Error: (OS 2) The system cannot find the file specified.

8) Stergerea unui membru dintr-un grup :

- Se verifica starea fisierului care va fi sters :

```
SQL> select * from v$logfile;
```

GROUP#	STATUS	TYPE	MEMBER	IS_
3	STALE	ONLINE	F:\ORA10G_DB\PRODUCT\10.2.0\ORADATA\UPB\REDO03.LOG	NO
2	STALE	ONLINE	F:\ORA10G_DB\PRODUCT\10.2.0\ORADATA\UPB\REDO02.LOG	NO
1		ONLINE	F:\ORA10G_DB\PRODUCT\10.2.0\ORADATA\UPB\REDO01.LOG	NO
1	INVALID	ONLINE	E:\TEMP\LOG2.RDO	NO

➤ Se sterge fisierul de log (trebuie sa nu fie in grupul curent) :

```
SQL> alter database drop logfile member 'E:\TEMP\LOG2.RDO';
```

Observatii:

✓ Daca fisierul face parte dintr-un grup urmator nu se poate sterge si se genereaza eroarea:
ERROR at line 1:

ORA-00362: member is required to form a valid logfile in group 3

ORA-01517: log member: 'E:\temp\log2.rdo'

✓ Daca fisierul face parte din grupul curent, se genereaza eroarea:
ERROR at line 1:

ORA-01609: log 1 is the current log for thread 1 - cannot drop members

In acest caz se face un switch pe urmatorul grup, apoi se sterge membrul respectiv:

```
SQL> alter system switch logfile;
```

System altered.

```
SQL> alter database drop logfile member 'E:\TEMP\LOG2.RDO';
```

Database altered.

```
SQL> select * from v$logfile;
```

GROUP#	STATUS	TYPE	MEMBER	IS_
3		ONLINE	F:\ORA10G_DB\PRODUCT\10.2.0\ORADATA\UPB\REDO03.LOG	NO
2		ONLINE	F:\ORA10G_DB\PRODUCT\10.2.0\ORADATA\UPB\REDO02.LOG	NO
1		ONLINE	F:\ORA10G_DB\PRODUCT\10.2.0\ORADATA\UPB\REDO01.LOG	NO

9) Informatii legate de modul de lucru al instantei (modul arhiva sau nonarhiva)

```
SQL> desc v$instance
```

Name	Null?	Type

INSTANCE_NUMBER	NUMBER
INSTANCE_NAME	VARCHAR2(16)
HOST_NAME	VARCHAR2(64)
VERSION	VARCHAR2(17)
STARTUP_TIME	DATE
STATUS	VARCHAR2(12)
PARALLEL	VARCHAR2(3)
THREAD#	NUMBER
ARCHIVER	VARCHAR2(7)
LOG_SWITCH_WAIT	VARCHAR2(15)
LOGINS	VARCHAR2(10)
SHUTDOWN_PENDING	VARCHAR2(3)
DATABASE_STATUS	VARCHAR2(17)
INSTANCE_ROLE	VARCHAR2(18)
ACTIVE_STATE	VARCHAR2(9)
BLOCKED	VARCHAR2(3)

SQL> select instance_name, database_status, archiver from v\$instance;

INSTANCE_NAME	DATABASE_STATUS	ARCHIVE
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UPB	ACTIVE	STOPPED