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# 1 - Summary

A database can be completely recreated by duplicating it with RMAN using its datafiles and archived logs backups. This is done using the

duplicate\_db.sh script located in /u01/app/oracle/admin/scripts/misc. This script can be use RMAN “active duplication” or RMAN backups to create a database.

# 2 - duplicate\_db.sh

./duplicate\_db.sh -h

script usage: duplicate\_db.sh [-h] [-m duplicate\_mode (B/A)] -s source\_db -d dest\_db[-b backup\_location ] [-p post\_duplication (Y/N)] -x source\_pass -y dest\_pass

Exemple : duplicate\_db.sh -s BELDEV -d BELQUA -m B -u 'SYSDATE-2' -b /DD2500/backup/BELDEV -p Y -x syspwd1 -y syspwd2

Backup based duplication, restore database at present time -2 days, No post duplication processing

Exemple : duplicate\_db.sh -s BELDEV -d BELQUA -b /DD2500/backup/BELDEV -m B -p N -x syspwd1 -y syspwd2

Backup based duplication, No post duplication processing

Exemple : duplicate\_db.sh -s BELDEV -d BELQUA -m A -x syspwd1 -y syspwd2

Active duplication, No post duplication processing

Exemple : duplicate\_db.sh -s BELDEV -d BELQUA -r RMANCAT -p Y -x syspwd1 -y syspwd2

Active duplication, post duplication processing, duplicated db registered in RMAN catalog

Notes for options

-m : Active duplication is the default duplication mode

-p : No post duplication activity by default

-x -y : SYS passwords for source and destination are mandatory

# 3 - Context

This technique may be used as a disaster recovery for production database in case primary and standby databases are unavailable.

# 4 - Case description

Backups for a database stored on EMC2 datadomain is used to create database DRDEVL.

|  |
| --- |
| [oflbepat01:/DD2500/backup/NNZDEVL]# ls  alog\_20191127 alog\_20191218 ctl\_20191205 ctl\_20191226 data\_20191213  alog\_20191128 alog\_20191219 ctl\_20191206 ctl\_20191227 data\_20191216  alog\_20191129 alog\_20191220 ctl\_20191209 ctl\_20191230 data\_20191217  alog\_20191202 alog\_20191223 ctl\_20191210 data\_20191127 data\_20191218  alog\_20191203 alog\_20191224 ctl\_20191211 data\_20191128 data\_20191219  alog\_20191204 alog\_20191225 ctl\_20191212 data\_20191129 data\_20191220  alog\_20191205 alog\_20191226 ctl\_20191213 data\_20191202 data\_20191223  alog\_20191206 alog\_20191227 ctl\_20191216 data\_20191203 data\_20191224  alog\_20191209 alog\_20191230 ctl\_20191217 data\_20191204 data\_20191225  alog\_20191210 ctl\_20191127 ctl\_20191218 data\_20191205 data\_20191226  alog\_20191211 ctl\_20191128 ctl\_20191219 data\_20191206 data\_20191227  alog\_20191212 ctl\_20191129 ctl\_20191220 data\_20191209 data\_20191230  alog\_20191213 ctl\_20191202 ctl\_20191223 data\_20191210 directory\_list.lst  alog\_20191216 ctl\_20191203 ctl\_20191224 data\_20191211 scontrolfile.ctl  alog\_20191217 ctl\_20191204 ctl\_20191225 data\_20191212 |

# 5 – Backup based duplication

Duplicate\_db.sh script in /u01/app/oracle/admin/scripts/misc is used to duplicate NNDEVL

|  |
| --- |
| [oflbepat01:/u01/app/oracle/admin/scripts/misc]  **./duplicate\_db.sh -m b -s NNZDEVL -d DRDEVL -b /DD2500/backup/NNZDEVL -x \*\*\*\* -y Welcome\_2020 -p Y**  ORACLE\_HOME is /u01/app/oracle/product/18.0.0.0  DUPLICATE\_MODE is B  SOURCE\_SID is NNZDEVL  SOURCE\_SID\_PWD is \*\*\*\*tail -f Tho01710  DEST\_SID is DRDEVL  DEST\_SID\_PWD is Welcome\_2020  RMAN\_SID is  BACKUP\_LOCATION is /DD2500/backup/NNZDEVL  POST\_DUPLICATION is Y  Has any previous database DRDEVL been cleaned up (Y/N)?Y  backup\_location is /DD2500/backup/NNZDEVL  SOURCE\_SID\_PWD is Qmx0225\_nnzdevl  DEST\_SID\_PWD is Welcome\_2020  Password & pfiles cleanup  Auxiliary instance DRDEVL /tmp/init\_DRDEVL\_4\_dup\_15313.ora  db\_name=DRDEVL  db\_unique\_name=DRDEVL  compatible=18.7.0  control\_files='+DATA/DRDEVL/CONTROLFILE/control01.ctl','+FRA/DRDEVL/CONTROLFILE/control02.ctl'  remote\_login\_passwordfile='EXCLUSIVE'  db\_create\_file\_dest='+DATA'  db\_recovery\_file\_dest='+FRA'  db\_recovery\_file\_dest\_size='20G'  RMAN command file /tmp/duplicate\_NNZDEVL\_2\_DRDEVL\_15313.rman  connect auxiliary sys/Welcome\_2020  run{  allocate auxiliary channel aux1 type disk;  allocate auxiliary channel aux2 type disk;  allocate auxiliary channel aux3 type disk;  allocate auxiliary channel aux4 type disk;  **DUPLICATE DATABASE 'NNZDEVL' TO 'DRDEVL'**  **backup location '/DD2500/backup/NNZDEVL'**  **spfile**  **PARAMETER\_VALUE\_CONVERT**  **'NNZDEVL','DRDEVL'**  **NOFILENAMECHECK;**  }  mkdir: created directory ‘/u01/app/oracle/admin/DRDEVL’  mkdir: created directory ‘/u01/app/oracle/admin/DRDEVL/adump’  Oracle password file /u01/app/oracle/product/18.0.0.0/dbs/orapwDRDEVL created  Startup auxiliary instance DRDEVL  ORACLE instance started.  Total System Global Area 306182176 bytes  Fixed Size 8656928 bytes  Variable Size 239075328 bytes  Database Buffers 50331648 bytes  Redo Buffers 8118272 bytes  About to duplicate ....  RMAN> 2> 3> 4> 5> 6> 7> 8> 9> 10> 11> 12> 13> 14>  Succesfull duplication for DRDEVL  Elapsed Time: 00:29:54.584790008  Post duplication tasks start here  Put DRDEVL spfile on ASM  About to create temp pfile /tmp/initDRDEVL\_15313.ora  File created.  About to create ASM pfile +DATA/DRDEVL/spfileDRDEVL  File created.  ‘/u01/app/oracle/product/18.0.0.0/dbs/spfileDRDEVL.ora’ -> ‘/u01/app/oracle/product/18.0.0.0/dbs/spfileDRDEVL.ora\_15313’  ORACLE instance shut down.  ORACLE instance started.  Total System Global Area 1610612016 bytes  Fixed Size 8658224 bytes  Variable Size 603979776 bytes  Database Buffers 989855744 bytes  Redo Buffers 8118272 bytes  Database mounted.  Database opened.  User altered.  User altered.  User altered.  Database closed.  Database dismounted.  ORACLE instance shut down.  Database unique name: DRDEVL  Database name: DRDEVL  Oracle home: /u01/app/oracle/product/18.0.0.0  Oracle user: oracle  Spfile: +DATA/DRDEVL/spfileDRDEVL  Password file:  Domain:  Start options: open  Stop options: immediate  Database role: PRIMARY  Management policy: AUTOMATIC  Disk Groups:  Services:  OSDBA group:  OSOPER group:  Database instance: DRDEVL |