Automated Backup with RMAN

**Fully Backup**

???

rman target / nocatalog

```
RMAN> configure controlfile autobackup format for device type disk to '/mnt/nfs_fs13/from_ora10g/win/
db_full/%F';
RMAN> configure controlfile autobackup on;
RMAN> configure channel device type disk format = '/mnt/nfs_fs13/from_ora10g/win/db_full/%U';
RMAN> crosscheck archivelog all;
RMAN> delete noprompt force expired archivelog all;
RMAN> backup database plus archivelog delete input;
RMAN> configure controlfile autobackup off;
```

TIPs?

- ??????????????????
  configure maxsetsize to 30G;
  ????? size ?????? datafile ????
- ?????????
  configure maxsetsize clear;

**Archive Log Backup**

```
run {
   crosscheck archivelog all;
   delete noprompt force expired archivelog all;
   backup archivelog all format '/path/to/backup/ora-sid/arc_%T_%s_%t_p%p'
   delete input;
}
```

**Control file Backup**

```
run {
   BACKUP AS COPY CURRENT CONTROLFILE FORMAT '/path/to/backup/ora-sid/control01.ctl';
}
```

**spfile Backup**

```
SQL> connect / as sysdba
Connected.
SQL> show parameters spfile;
```

```
NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
spfile                               string      /opt/oracle/product/10.2.0.db_
                                                 1/dbs/spfiletopprod.ora
```

cp /opt/oracle/product/10.2.0.db_1/dbs/spfiletopprod.ora /mnt/tpeitpap01_nfs/from_tpemisep12/spfiletopprod.ora.`date +"%F"`

**Exclude the particular tablespace**

RMAN> configure exclude for tablespace 'TBS1';
RMAN> configure exclude for tablespace 'TBS2';

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To list the excludes tablespace
RMAN> show exclude;

You can override this exclusion feature by explicitly issuing keyword NOEXCLUDE in order to take whole database
backup.
RMAN> backup database noexclude;

Clear the Excluded SAMTBS1 tablespace
RMAN> configure exclude for tablespace 'TBS1' clear;

**???? channels ??**

? RMAN scripts ??????

run {
allocate channel d1 type DISK;
allocate channel d2 type DISK;
backup as backupset archivelog all format .....
...
release channel d1;
release channel d2;
}

**Format Directives**

| Format | Description |
|---|---|
| %a | Current database activation id |
| %A | Zero-filled activation ID |
| %c | The copy number of the backup piece within a set of duplexed backup pieces.bMaximum value is 256 |

| | |
|---|---|
| %d | Database name |
| %D | Current day of the month from the Gregorian calendar in format DD |
| %e | Archived log sequence number |
| %f | Absolute file number |
| %F | Combines the DBID, day, month, year, and sequence into a unique and repeatable generated name |
| %h | Archived redo log thread number |
| %I | DBID |
| %M | Month in the Gregorian calendar in the format MM |
| %n | Database name, padded on the right with x characters to a total length of eight characters |
| %N | Tablespace name. Only valid when backing up datafiles as image copies. |
| %p | Piece number within the backup set. This value starts at 1 for each backup set and is incremented by 1 for each backup piece created. If a PROXY is specified, the %p variable must be included in the FORMAT string either explicitly or implicitly within %U. |
| %r | Resetlogs ID |
| %s | Backup set number. This number is a counter in the control file that is incremented for each backup set. The counter value starts at 1 and is unique for the lifetime of the control file. If you restore a backup control file, then duplicate values can result. CREATE CONTROLFILE initializes the counter at 1. |
| %S | Zero-filled sequence number |
| %t | Backup set time stamp, a 4-byte value derived as the number of seconds elapsed since a fixed reference time. The combination of %s and %t can be used to form a unique name for the backup set. |
| %T | Year, month, and day in the Gregorian calendar in the format: YYYYMMDD |
| %u | An 8-character name constituted by compressed representations of the backup set or image copy number and the time the backup set or image copy was created |
| %U | A system-generated unique filename (default). %U is different for image copies and backup pieces. For a backup piece, %U is a shorthand for %u_%p_%c and guarantees uniqueness in generated backup filenames. For an image copy of a datafile, %U means the following:<br>data-D-%d_id-%I_TS-%N_FNO-%f_%u<br>For an image copy of an archived redo log, %U means the following:<br>arch-D_%d-id-%I_S-%e_T-%h_A-%a_%u<br>For an image copy of a control file, %U means the following:<br>cf-D_%d-id-%I_%u |
| %Y | Year in this format: YYYY |

| | |
|---|---|
| %% | Percent (%) character. For example, %%Y translates to the string %Y |

**????**

**???**

full backup

- ????
- ??????? archive backup ????

```
configure retention policy to redundancy ${RMAN_KEEP};
run {
   backup as compressed backupset database format '${rman_dest}/%d_DB_%s_%T_%U.rman' filesperset 5;
   sql 'alter system archive log current';
   backup as backupset archivelog all format '${rman_dest}/%d_ARC_%s_%T_%U.rman' skip inaccessible
filesperset 20 delete all input;
   backup current controlfile format '${rman_dest}/%d_CTL_%s_%T_%U.rman';
   backup spfile format '${rman_dest}/%d_SPFILE_%s_%T_%U.rman';
   crosscheck archivelog all;
   delete noprompt force expired archivelog all;
   delete force noprompt obsolete;
}
```

archive backup

- ??????? full backup ????

```
run {
   crosscheck archivelog all;
   delete noprompt force expired archivelog all;
   backup as backupset archivelog all format '${rman_dest}/%d_ARC_%s_%T_%U.rman' skip inaccessible
filesperset 20 delete all input;
   backup current controlfile format '${rman_dest}/%d_CTL_%s_%T_%U.rman';
}
```

**????**

- http://dba.tw/index.php?topic=320.0
- http://eazyoracle.blogspot.tw/2012/1...ows-linux.html
- backupDB.sh - RMAN Backup Script