

# RMAN Catalog Backup

*How to configure simple standard RMAN backups for Oracle DB with catalog database*

## Create Catalog Schema

At the database you intend to use as catalog database:

### Create Tablespace for catalog schema

```
SQL> create tablespace CAT_TBS;  
Tablespace created.
```

## Create Catalog Schema

```
SQL> create user RMANCAT identified by XXX default tablespace CAT_TBS temporary tablespace TEMP quota unlimited  
on CAT_TBS;  
  
SQL> grant create session to RMANCAT;  
Grant succeeded.  
SQL> grant recovery_catalog_owner to RMANCAT;  
Grant succeeded.  
SQL> grant execute on dbms_stats to RMANCAT;  
Grant succeeded.
```

## Configure RMAN

At the database you want to backup, configure RMAN with access to catalog

### Configure TNS

Configure TNS so you have connectivity to the catalog database.

```
vi $TNS_ADMIN/tnsnames.ora  
OPS =  
(DESCRIPTION =  
(ADDRESS = (PROTOCOL = TCP)(HOST = linux10)(PORT = 1521))  
(CONNECT_DATA =  
(SERVER = DEDICATED)  
(SERVICE_NAME = ops.loopback.org)  
)  
)
```

## Connect RMAN to catalog

```
oracle@orcl1$ rman target / catalog rmancat/XXX@ops  
Recovery Manager: Release 11.2.0.2.0 - Production on Fri Feb 24 18:49:22 2012  
Copyright (c) 1982, 2009, Oracle and/or its affiliates. All rights reserved.  
connected to target database: OPS (DBID=3945272714)  
connected to recovery catalog database
```

## Create Catalog

```
RMAN> create catalog tablespace cat_tbs;  
  
recovery catalog created
```

## Register database

```
RMAN> register database;
database registered in recovery catalog
starting full resync of recovery catalog
full resync complete
```

```
RMAN> report schema;
```

```
Report of database schema for database with db_unique_name LOOPDW
List of Permanent Datafiles
```

```
File Size(MB) Tablespace RB segs Datafile Name
```

```
-----
1 820 SYSTEM YES /orcl1/oradata/LOOPDW/datafile/o1_mf_system_75w23n11_.dbf
2 1300 SYSAUX NO /orcl1/oradata/LOOPDW/datafile/o1_mf_sysaux_75w25hkd_.dbf
3 540 UNDOTBS1 YES /orcl1/oradata/LOOPDW/datafile/o1_mf_undotbs1_75w273r6_.dbf
4 5 USERS NO /orcl1/oradata/LOOPDW/datafile/o1_mf_users_75w28flx_.dbf
5 100 TBSAAAAAA NO /orcl1/oradata/LOOPDW/datafile/o1_mf_daff_75wf3gll_.dbf
6 100 TBSBBBBBB NO /orcl1/oradata/LOOPDW/datafile/o1_mf_efef_75wf58x5_.dbf
7 300 OWB NO /orcl1/oradata/LOOPDW/datafile/o1_mf_owb_767m2qrp_.dbf
8 11 OLTS_DEFAULT NO /orcl1/oradata/gdefault1_oid.dbf
9 0 OLTS_BATTRSTORE NO /orcl1/oradata/battr1_oid.dbf
10 54 OLTS_CT_STORE NO /orcl1/oradata/gcats1_oid.dbf
11 21 OLTS_ATTRSTORE NO /orcl1/oradata/attr1_oid.dbf
12 11 OLTS_SVRMGSTORE NO /orcl1/oradata/svrmg1_oid.dbf
```

```
List of Temporary Files
```

```
File Size(MB) Tablespace Maxsize(MB) Tempfile Name
```

```
-----
1 60 TEMP 65535 /orcl1/oradata/LOOPDW/datafile/o1_mf_temp_75w27mdo_.tmp
2 100 IAS_TEMP 100 /orcl1/oradata/iastemp.dbf Configure RMAN parameters h1. (optionally)
```

```
RMAN> configure default device type to disk;
```

```
new RMAN configuration parameters:
CONFIGURE DEFAULT DEVICE TYPE TO DISK;
new RMAN configuration parameters are successfully stored
starting full resync of recovery catalog
full resync complete
```

```
RMAN> configure retention policy to recovery window of 7 days;
```

```
new RMAN configuration parameters:
CONFIGURE RETENTION POLICY TO RECOVERY WINDOW OF 7 DAYS;
new RMAN configuration parameters are successfully stored
starting full resync of recovery catalog
full resync complete
```

```
RMAN> configure backup optimization on;
```

```
new RMAN configuration parameters:
CONFIGURE BACKUP OPTIMIZATION ON;
new RMAN configuration parameters are successfully stored
starting full resync of recovery catalog
full resync complete
```

Configure a default destination for backups:

```
RMAN> CONFIGURE CHANNEL DEVICE TYPE DISK FORMAT '/filer/RMAN/LOOPDW/%U';
```

Provide space for backup destinations at the database host RMAN is running on.

If you are using NFS storage, use correct mount options to avoid "ORA-27054: NFS file system where the file is created or resides is not mounted with correct options" errors.

```
mount -F nfs -o rw,bg,hard,rsize=32768,wsz=32768,vers=3,forcedirectio,nointr,proto=tcp,suid filer:/tank/filer Backups/RMAN /filer/RMAN
```

## Perform a manual backup

An instant backup, done interactively h1. RMAN> backup database;

```
RMAN> backup archivelog all delete input;
```

## Configure a cron based backup

```
oracle@orc11 ~/RMAN/scripts$ cat loopdw.cmd
# Perform backup of database and archivelogs, deleting backed up archivelogs
BACKUP AS COMPRESSED BACKUPSET DATABASE PLUS ARCHIVELOG DELETE INPUT;
# Maintenance commands for crosschecks and deleting expired backups
ALLOCATE CHANNEL FOR MAINTENANCE DEVICE TYPE DISK;
CROSSCHECK BACKUP;
DELETE NOPROMPT EXPIRED BACKUP;
DELETE NOPROMPT OBSOLETE DEVICE TYPE DISK;
CROSSCHECK ARCHIVELOG ALL;
DELETE NOPROMPT EXPIRED ARCHIVELOG ALL;
# EOF
```

```
$ export EDITOR=vi
```

```
$ crontab -e
```

```
$ crontab -l
```

```
35 02 * * * rman target / catalog rmancat/XXX@loopds cmdfile=/home/oracle/RMAN/scripts/loopdb.cmd
```