# Practices for Lesson 3: Using Recovery Manager (RMAN)

**Practices for Lesson 3: Overview**

Overview

In these practices, you will verify the default backup destination, set the RMAN display data and time format, verify that control file autobackup is configured, and verify the backup retention policy.

Practice 3-1: Configuring the Default Backup Destination

Overview

In this practice, you determine the default backup destination setting and create a backup in the default location.

Assumptions

You have a terminal window open with the environment variables set for the ORCLCDB database instance.

Timing Estimate

It should take approximately 5 minutes to complete this practice.

Tasks

The DB\_RECOVERY\_FILE\_DEST parameter specifies the default location for the fast recovery area. View the parameter value by logging in to SQL\*Plus and using the SHOW PARAMETER command.

Log in to RMAN, execute the BACKUP DATABASE command, and then exit RMAN.

Practice 3-2: Setting the Date and Time Format for RMAN

Overview

In this practice, you set the date/time format that RMAN uses for displaying time stamps. The default date format does not include the time of day information. You will be performing several backups and recoveries in the same day, and in some cases, you will need to determine which backup to use.

Assumptions

You completed Practice 3-1.

You have a terminal window open with the environment variables set for the ORCLCDB database instance.

Timing Estimate

It should take approximately 10 minutes to complete this practice.

Tasks

Set the NLS\_LANG and NLS\_DATE\_FORMAT variables so that RMAN includes time information in any time stamp values.

Use the editor of your choice (vi, gedit) and add the following two lines to the end of the

~oracle/.bashrc file:

export NLS\_LANG=american\_america.al32utf8 export NLS\_DATE\_FORMAT="yyyy-mm-dd:hh24:mi:ss"

In a terminal window, invoke your editor. This example uses the gedit editor.

Copy and paste by using the mouse buttons and icons in the editor, save your changes, and then close the gedit window.

**Note:** If you are not copying and pasting the variables, double-check that the

NLS\_LANG value is written correctly with a letter “l”, not a digit “1”.

View the modified file by using the cat command and apply the new settings.

Verify the settings by starting RMAN and listing the backups in the recovery catalog or from the control file.

Log in to RMAN.

List the backups and note the time stamp format. The output shows the most recent backups.

**Tip:** Because the output of the RMAN commands can be quite long, consider using the RMAN SPOOL LOG TO <file> command to direct the output to your specified file.

Optionally, enter SPOOL LOG TO /tmp/test.log in your RMAN window.

Repeat the previous LIST BACKUP command.

Note that the output is not displayed in your window. In a second terminal window, enter cat /tmp/test.log to view the output.

Use SPOOL LOG OFF to stop directing output to the file.

Practice 3-3: Configuring RMAN Settings

Overview

In this practice, you configure or confirm RMAN settings for the following tasks:

To back up the control file and server parameter file (SPFILE) each time RMAN takes a backup of anything in the orclcdb database

To ensure that one redundant backup is kept

Then you perform a tablespace backup to verify these settings.

Assumptions

You completed Practice 3-2.

You have a terminal window open with the environment variables set for the ORCLCDB database instance.

Timing Estimate

It should take approximately 5 minutes to complete this practice.

Tasks

While still logged in to an RMAN session as SYSBACKUP, verify that control file autobackup is enabled.

View the current retention policy setting to verify that it is set to 1.

Determine which data file belongs to the USERS tablespace in ORCLPDB1.

Back up the USERS tablespace in both the CDB and ORCLPDB1.

Exit RMAN.

Close the terminal window opened for this practice.