Getting Familiar with Oracle Database 12c **Duration: 45 Minutes**

Prerequisites For the Session – Oracle Database Enterprise edition should be installed and configured with ORCL database.

Activity 3.

Understanding The Parameter File and Basic Trouble Shooting with Alert Log

Let's Locate the Parameter files

On a windows system:

The server parameter file or the SPfile located at

D:\app\oracle\product\19.3.0\dbhome_1\database>dir

03/07/2021 11:34 AM 3,584 SPFILEORCL193.ORA

Parameter file or the static PFile located at

D:\app\oracle\admin\orcl1\pfile>

06/20/2020 08:04 PM 1,981 init.ora.5202020201422

The default init.ora file located at.

D:\app\oracle\product\19.3.0\dbhome_1>cd dbs

D:\app\oracle\product\19.3.0\dbhome_1\dbs>

05/14/2015 03:02 PM 3,149 init.ora

On a Linux System

The SPfile, PFile and the default PFile located as below.

```
[oracle@localhost dbs]$ pwd
/u01/app/oracle/product/19.3.0/dbhome_1/dbs
[oracle@localhost dbs]$ ls
hc_orclcdb.dat  lkORCLCDB     snapcf_orclcdb.f
init.ora        orapworclcdb  spfileorclcdb.ora
[oracle@localhost dbs]$ cd /u01/app/oracle/admin/orcl/pfile
[oracle@localhost pfile]$ dir
init.ora.4122021235746
```

Also please note the naming convention for the files it goes as:

For the PFile

INIT – which means initialization + the DB Name.ora

For the SPfile

spfile + Database name.ora

Let's take a look at a sample parameter file.

```
db_name='ORCL'
memory_target=1G
processes = 150
audit_file_dest='<ORACLE_BASE>/admin/orcl/adump'
audit_trail ='db'
db_block_size=8192
db_domain=''
db_recovery_file_dest='<ORACLE_BASE>/fast_recovery_area'
db_recovery_file_dest_size=2G
diagnostic_dest='<ORACLE_BASE>'
dispatchers='(PROTOCOL=TCP) (SERVICE=ORCLXDB)'
open_cursors=300
remote_login_passwordfile='EXCLUSIVE'
undo_tablespace='UNDOTBS1'
# You may want to ensure that control files are created on separate physical
# devices
control_files = (ora_control1, ora_control2)
compatible ='11.2.0'
```

```
##############################################################################
# Copyright (c) 1991, 2013 by Oracle Corporation
##############################################################################

###########################################
# Cache and I/O
###########################################
db_block_size=8192

###########################################
# Cursors and Library Cache
###########################################
open_cursors=300

###########################################
# Database Identification
###########################################
db_name="orcl"

###########################################
# File Configuration
###########################################
control_files=("/u01/app/oracle/oradata/orcl/control01.ctl", "/u01/app/oracle/recovery_area/orcl/control02.ctl")
db_recovery_file_dest="/u01/app/oracle/recovery_area"
db_recovery_file_dest_size=8016m

###########################################
# Miscellaneous
###########################################
compatible=12.2.0
diagnostic_dest=/u01/app/oracle

"…….……"
```

<u>Ref:</u>

Basic Initialization Parameters (oracle.com) – 12.2

Basic Initialization Parameters (oracle.com) – 21c

Alert log and the Trace files

https://docs.oracle.com/en/database/oracle/oracle-database/19/admin/monitoring-the-database.html#GUID-29ECD5A0-118F-40FC-B54A-8B0D92E91314

A trace file is a file that contains diagnostic data used to investigate problems. An alert log is a file that provides a chronological log of database messages and errors.

The easiest and best way to monitor the database for errors and alerts is with the Database Home page in Oracle Enterprise Manager Cloud Control (Cloud Control)

Issue with EM with Flash EOL

https://support.oracle.com/epmos/faces/DocumentDisplay?_afrLoop=358905556243947&parent=EXTERNAL_SEARCH&sourceId=BULLETIN&id=2723592.1&_afrWindowMode=0&_adf.ctrl-state=jvk21uuw4_500

https://support.oracle.com/cloud/faces/DocumentDisplay?_afrLoop=370686691573456&_afrWindowMode=0&id=2500405.1&_adf.ctrl-state=186jnrwri_67

https://support.oracle.com/cloud/faces/DocumentDisplay?_afrLoop=287440091547002&_afrWindowMode=0&id=2729947.1&_adf.ctrl-state=2plli9h05_4

https://blogs.oracle.com/observability/post/important-information-about-adobe-flash-plug-in-end-of-life-and-enterprise-manager

https://community.oracle.com/mosc/discussion/4348036/adobe-flash-end-of-life-impact-on-oracle-enterprise-manager

https://docs.oracle.com/en/database/oracle/oracle-database/19/admqs/getting-started-with-database-administration.html#GUID-BA75AD46-D22E-4914-A31E-C395CD6A2BBA

JavaScript Extension Toolkit (JET)

The **alert log** is a chronological log of messages and errors, and includes the following items:

- All internal errors (ORA-00600), block corruption errors (ORA-01578), and deadlock errors (ORA-00060) that occur
- Administrative operations, such as some CREATE, ALTER, and DROP statements and STARTUP, SHUTDOWN, and ARCHIVELOG statements
- Messages and errors relating to the functions of shared server and dispatcher processes
- Errors occurring during the automatic refresh of a materialized view
- The values of all initialization parameters that had nondefault values at the time the database and instance start

The alert log is maintained as both an XML-formatted file and a text-formatted file

you can use the ADRCI utility to view the XML-formatted version of the file with the XML tags stripped.

The Automatic Diagnostic Repository Command Interpreter (ADRCI) is a command-line tool that is part of the Oracle Database fault diagnosability infrastructure.

[oracle@localhost dbs]$ adrci

https://docs.oracle.com/en/database/oracle/oracle-database/19/sutil/oracle-adr-command-interpreter-adrci.html#GUID-DC5744C7-FAC0-436B-99D5-DBD45B66930B

ADRCI: Release 12.2.0.1.0 - Production on Tue Aug 17 18:42:02 2021

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ADR base = "/u01/app/oracle"

adrci> show alert

Choose the home from which to view the alert log:

1: diag/rdbms/orcl/orcl

2: diag/rdbms/orclcdb/orclcdb

3: diag/clients/user_oracle/host_61728193_110

4: diag/clients/user_oracle/host_61728193_107

5: diag/tnslsnr/localhost/listener

Q: to quit

Please select option:

adrci> set homepath diag/rdbms/orcl/orcl

adrci>show homes

adrci> show alert -tail 50

adrci> show alert -tail -f

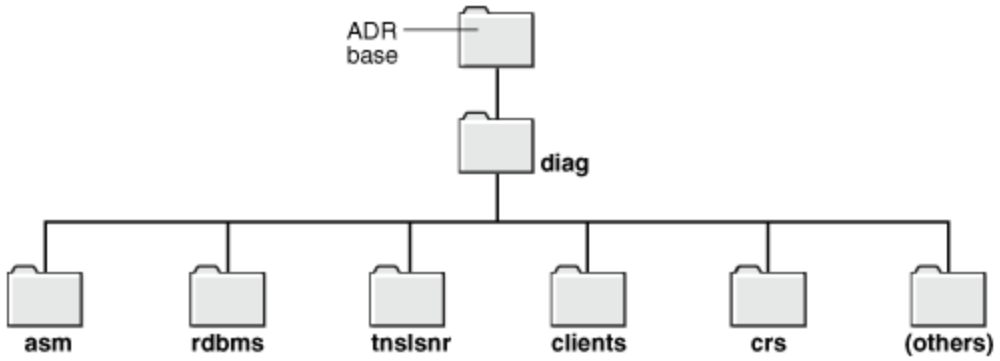
Automatic Diagnostic Repository

https://docs.oracle.com/en/database/oracle/oracle-database/19/admin/diagnosing-and-resolving-problems.html#GUID-3E3E2CC7-C7CD-480C-AC6C-7A9786739748

The ADR is a file-based repository for database diagnostic data such as traces, dumps, the alert log, health monitor reports, and more. It has a unified directory structure across multiple instances and multiple products.

Because all diagnostic data, including the alert log, are stored in the ADR, the initialization parameters BACKGROUND_DUMP_DEST and USER_DUMP_DEST are deprecated. They are replaced by the initialization parameter **DIAGNOSTIC_DEST,** which identifies the location of the ADR.

Structure, Contents, and Location of the Automatic Diagnostic Repository



Ref : https://docs.oracle.com/en/database/oracle/oracle-database/19/admin/diagnosing-and-resolving-problems.html#GUID-951A06EE-DDF7-4C2A-B0BB-B24418BB2E33

Try a tree command to DIAG directory

Controlling the Size of an Alert Log

To control the size of an alert log, you must manually delete the file when you no longer need it. Otherwise, the database continues to append to the file.

Controlling the Size of Trace Files

You can control the maximum size of all trace files (excluding the alert log) using the initialization parameter MAX_DUMP_FILE_SIZE.

You can set this parameter in the following ways:

- A numerical value specifies the maximum size in operating system blocks. The specified value is multiplied by the block size to obtain the limit.
- A number followed by a K, M, or G suffix specifies the file size in kilobytes, megabytes, or gigabytes.
- UNLIMITED, which is the default, specifies no limit.

In this activity the competency was built on

- Initialization parameter file
- Database Monitoring
- Alert log and trace files
- ADR and ADRCI