Oracle Installation and Usage

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Oracle database install, users, grants, priviledges, updates and maintenance.

VERSION: THEVERSION  
build: THEBUILD

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# List of Definitions and Abbreviations

Container database

- “Container Database (CDB) : On the surface this seems very similar to a conventional Oracle database, as it contains most of the working parts you will be already familiar with (controlfiles, datafiles, undo, tempfiles, redo logs etc.). It also houses the data dictionary for those objects that are owned by the root container and those that are visible to all PDBs.”[[1]](#footnote-2)

CRUD

- “In computer programming, create, read (aka retrieve), update, and delete (CRUD) are the four basic functions of persistent storage.”[[2]](#footnote-3)

Database

- “A database is a set of physical files on disk created by the CREATE DATABASE statement. The instance manages its associated data and serves the users of the database.”[[3]](#footnote-4)

DBCA

- Database Configuration Assistant. The DBCA can be used to:[[4]](#footnote-5)

Creating a Database with DBCA

Configuring Database Options with DBCA

Deleting a Database with DBCA

Managing Templates with DBCA

Configuring Automatic Storage Management with DBCA

Instance

- “A database instance is a set of memory structures that manage database files.”[[5]](#footnote-6)

Multitenant

- “The multitenant option introduced in Oracle Database 12c allows a single container database (CDB) to host multiple separate pluggable databases (PDB).”[[6]](#footnote-7)

Oracle Universal Installer (OUI)

- ’The Oracle Universal Installer (OUI) allows you to create a container database (CDB) during the software installation. The "Typical Install Configuration" screen has a checkbox to indicate the database is a container database. You can optionally create a single pluggable database (PDB) in this screen also.’[[7]](#footnote-8)

Pluggable database

- “Pluggable Database (PDB) : Since the CDB contains most of the working parts for the database, the PDB only n eeds to contain information specific to itself. It does not need to worry about controlfiles, redo logs and undo etc. Instead it is just made up of datafiles and tempfiles to handle it’s own objects. This includes it’s own data dictionary, containing information about only those objects that are specific to the PDB. From Oracle 12.2 onward a PDB can, and should, have a local undo tablespace.”[[8]](#footnote-9)

# Introduction

”There are 3 steps to begin using AWStats:[[9]](#footnote-10)

* I. Setup: Installation and configuration
* II. Process logs: Building/updating statistics database
* III. Run Reports: Building and reading reports

# Installation

AWStats v7.3 and v7.7 are installed on the intdev[[10]](#footnote-11) server from package.  
  
The installed versions include:

* AWStats v7.3-1
* AWStats v7.7-1.1.el6

# Credentials and Account Management

Use of the Oracle client and database requires credentials for basic create, read, update and delete (CRUD). For example I need to create an account with the priviledges and roles for creation and access to a new database. Will be used in SAP PowerDesigner.[[11]](#footnote-12)  
  
For account management first connect to the system where Oracle is installed using the SYSTEM account. In my case this requires logging into Windows 10 laptop with Oracle 12.2.0 installed to:  
Coracleproduct12.2.0

## Create user

# Instance

“A database instance is a set of memory structures that manage database files.  
  
A database is a set of physical files on disk created by the CREATE DATABASE statement. The instance manages its associated data and serves the users of the database.  
  
Every running Oracle database is associated with at least one Oracle database instance. Because an instance exists in memory and a database exists on disk, an instance can exist without a database and a database can exist without an instance.”[[12]](#footnote-13)

## List

## Create

## Delete

# Database

Oracle 12.2.0 running under Windows 10 (64-bit) saves databases as datafiles under  
C:\oracle\oradata\cdb1\pdb1\PDB1\DATAFILE [[13]](#footnote-14)

## Create

# Container Database

[FIXME: Need content here...]

## Create

# Pluggable Database

[FIXME: Need content here...]

## Create

# Recover and Restore

[FIXME: Need content...]

# Examples

Series of useful LaTeX markup. Need to break out to separate examples.tex file.

## Escaping and Symbols

To get $$ or $$ just wrap the symbols in $ for math mode.

## Enumerate

DNR - Alaska State Department of Natural Resources

HI - Historical Index, not maintained since 1982

LE - Land Estate, maintained by SGU

ME - Mineral Estate, maintaind by SGU

Alaska State Surveys

ASBLT - As-Built Survey

ASCS - Cadastral Survey

## Comments

# Questions

NOTE: All answers for latest oracle 12.1 or 12.2 unless otherwise specified.

## Instances

Create new instance?

List available instances?

## Databases

Create new databases?

List available databases?

## DBCA

What is the DBCA?

DBCA vs. command line?

# Appendix

## Books

Oracle 12c For Dummies  
by Chris Ruel, Michael Wessler

## Scripts

[FIXME: Need scripts here.]

## Hyperlinks

2 Day DBA  
Oracle Database Release 12.2  
[https://docs.oracle.com/en/database/oracle/oracle-database/12.2/admqs/](https://docs.oracle.com/en/database/oracle/oracle-database/12.2/admqs/introduction.html" \l "GUID-78050887-822B-4091-8DBA-A8EC43602350)  
[/introduction.html#GUID-78050887-822B-4091-8DBA-A8EC43602350](https://docs.oracle.com/en/database/oracle/oracle-database/12.2/admqs/introduction.html" \l "GUID-78050887-822B-4091-8DBA-A8EC43602350)  
  
How to Use the Database Configuration Assistant (DBCA)  
to Create Databases in Oracle 12c  
by Chris Ruel, Michael Wessler  
<https://www.dummies.com/programming/databases/how-to-use-the-database-configuration-assistant-dbca-to-create-databases-in-oracle-12c/>  
  
Introduction to the Oracle Database Instance,  
Oracle Database Instance, Database Concepts,  
Oracle Database, Release 12.2  
[https://docs.oracle.com/en/database/oracle/oracle-database/12.2/cncpt/](https://docs.oracle.com/en/database/oracle/oracle-database/12.2/cncpt/oracle-database-instance.html) [oracle-database-instance.html](http://www.google.com/)  
  
Multitenant : Create and Configure a Pluggable Database (PDB)  
in Oracle Database 12c Release 1 (12.1)  
<https://oracle-base.com/articles/12c/multitenant-create-and-configure-pluggable-database-12cr1>  
  
Multitenant : Overview of Container Databases (CDB) and Pluggable Databases (PDB)  
Oracle 12c Release 1 (12.1)  
<https://oracle-base.com/articles/12c/multitenant-overview-container-database-cdb-12cr1>  
  
Oracle Database Instance  
Oracle Database Release 12.2  
[https://docs.oracle.com/en/database/oracle/oracle-database/12.2/cncpt/...](https://docs.oracle.com/en/database/oracle/oracle-database/12.2/cncpt/oracle-database-instance.html" \l "GUID-67247052-CE3F-44D2-BA3E-7067DEF4B6D5)  
[oracle-database-instance.html#GUID-67247052-CE3F-44D2-BA3E-7067DEF4B6D5](https://docs.oracle.com/en/database/oracle/oracle-database/12.2/cncpt/oracle-database-instance.html" \l "GUID-67247052-CE3F-44D2-BA3E-7067DEF4B6D5)  
  
Oracle Universal Installer (OUI)  
Oracle Database 12c Release 1 (12.1)  
[https://oracle-base.com/articles/12c/multitenant-create-and-configure-container-database-12cr1#oui](https://oracle-base.com/articles/12c/multitenant-create-and-configure-container-database-12cr1" \l "oui)  
  
Using DBCA to Create and Configure a Database  
in Oracle Database 12c Release 1 (12.1)  
Oracle Database 2 Day DBA  
10g Release 2 (10.2)  
Part Number B14196-02  
<https://docs.oracle.com/cd/B16254_01/doc/server.102/b14196/install003.htm>  
  
Viewing Information About CDBs and PDBs with SQL\*Plus  
Database Administrator’s Guide  
Oracle Database Online Documentation 12c  
Release 1 (12.1) / Database Administration  
[https://docs.oracle.com/database/121/ADMIN/cdb\_mon.htm#ADMIN13719](https://docs.oracle.com/database/121/ADMIN/cdb_mon.htm" \l "ADMIN13719)

1. Multitenant : Overview of Container Databases (CDB) and Pluggable Databases (PDB)  
   [https://oracle-base.com/articles/12c/multitenant-overview-container-database-cdb-12cr1#create-pdb](https://oracle-base.com/articles/12c/multitenant-overview-container-database-cdb-12cr1" \l "create-pdb) [↑](#footnote-ref-2)
2. Create, read, update and delete, From Wikipedia, the free encyclopedia  
   <https://en.wikipedia.org/wiki/Create,_read,_update_and_delete> [↑](#footnote-ref-3)
3. Introduction to the Oracle Database Instance, Oracle Database Instance, Database Concepts, Oracle Database, Release 12.2, [https://docs.oracle.com/en/database/oracle/oracle-database/12.2/cncpt/](https://docs.oracle.com/en/database/oracle/oracle-database/12.2/cncpt/oracle-database-instance.html) [oracle-database-instance.html](http://www.google.com/) [↑](#footnote-ref-4)
4. [Using DBCA to Create and Configure a Database, Oracle Database 2 Day DBA,](https://docs.oracle.com/cd/B16254_01/doc/server.102/b14196/install003.htm)  [↑](#footnote-ref-5)
5. Ibid. [↑](#footnote-ref-6)
6. Multitenant : Create and Configure a Pluggable Database (PDB) in Oracle Database 12c Release 1 (12.1)  
   <https://oracle-base.com/articles/12c/multitenant-create-and-configure-pluggable-database-12cr1> [↑](#footnote-ref-7)
7. Oracle Universal Installer (OUI)  
   [https://oracle-base.com/articles/12c/multitenant-create-and-configure-container-database-12cr1#oui](https://oracle-base.com/articles/12c/multitenant-create-and-configure-container-database-12cr1" \l "oui) [↑](#footnote-ref-8)
8. Multitenant : Overview of Container Databases (CDB) and Pluggable Databases (PDB)  
   [https://oracle-base.com/articles/12c/multitenant-overview-container-database-cdb-12cr1#create-pdb](https://oracle-base.com/articles/12c/multitenant-overview-container-database-cdb-12cr1" \l "create-pdb) [↑](#footnote-ref-9)
9. AWStats Installation, Configuration and Reporting  
   [https://awstats.sourceforge.io](https://awstats.sourceforge.io/docs/awstats_setup.html) [↑](#footnote-ref-10)
10. intdev - dnratwintdev.dnr.state.ak.us (204.89.222.43) [↑](#footnote-ref-11)
11. SAP PowerDesigner  
    <https://www.sap.com/products/powerdesigner-data-modeling-tools.html> [↑](#footnote-ref-12)
12. Introduction to the Oracle Database Instance, Oracle Database Instance, Database Concepts, Oracle Database, Release 12.2,[https://docs.oracle.com/en/database/oracle/oracle-database/12.2/cncpt/](https://docs.oracle.com/en/database/oracle/oracle-database/12.2/cncpt/oracle-database-instance.html) [oracle-database-instance.html](https://docs.oracle.com/en/database/oracle/oracle-database/12.2/cncpt/oracle-database-instance.html) [↑](#footnote-ref-13)
13. From inspection of Windows 10 filesystem on Monday August 3, 2020. [↑](#footnote-ref-14)