Oracle Installation and Usage

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VERSION: 0.0.1

Abstract

Oracle database installation, client access, maintenance, user configuration, grants, and priviledges.

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Contents

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]

- **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."[2]

- **DBCA** - Database Configuration Assistant. The DBCA can be used to:[3]

    - 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."[4]

- **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."[5]

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[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

[2]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/oracle-database-instance.html

[3]Using DBCA to Create and Configure a Database, Oracle® Database 2 Day DBA,

[4]Ibid.

[5]Multitenant : Overview of Container Databases (CDB) and Pluggable Databases (PDB)
https://oracle-base.com/articles/12c/multitenant-overview-container-database-cdb-12cr1#create-pdb

Introduction

"There are 3 steps to begin using AWStats:[6]

- I. Setup: Installation and configuration

- II. Process logs: Building/updating statistics database

- III. Run Reports: Building and reading reports

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[6]AWStats Installation, Configuration and Reporting
https://awstats.sourceforge.io

Installation

AWStats v7.3 and v7.7 are installed on the `intdev`[7] server from package.

The installed versions include:

- AWStats v7.3-1

- AWStats v7.7-1.1.el6

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[7]`intdev - dnratwintdev.dnr.state.ak.us` (204.89.222.43)

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."[8]

Create

Delete

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[8]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/oracle-database-instance.html

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Database

Oracle 12.2.0 running under Windows 10 (64-bit) saves databases as datafiles under
`C:\oracle\oradata\cdb1\pdb1\PDB1\DATAFILE` [9]

Create

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[9]From inspection of Windows 10 filesystem on Monday August 3, 2020.

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

1. 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

2. Alaska State Surveys

   - ASBLT - As-Built Survey
   - ASCS - Cadastral Survey

Comments

`COMMENTS` Comment — *Sean Weems, Spring 2003*
We should get the `COMMENTS` column searchable via the landrecords application before we do much anything else – shouldn't be too hard.

Errata: Plats spanning multiple sections
A few anomalies can be observed in the `AKPLATS` table. Specifically plats exist that span multiple sections. Since the table only has a single column, `SCODE`, that accepts a single section code, SGU (Status Graphics Unit) has handled this problem by entering multiple rows in the table, each with a different section that point to the same plat or file. Multiple section plats are indicated by setting the `TCODE` column to the value 37, and making an appropriate notation like *Section 24-25-26-27* in the `REMARKS` column.
[FIXME: Perhaps the `SCODE` column should accept an array of sections?]

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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?

Endnotes

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/
/introduction.html#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-dbc

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/
oracle-database-instance.html

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
Oracle Database Instance