

Membuat Database Oracle

By: Ahmad Syauqi Ahsan

ORACLE

Tujuan

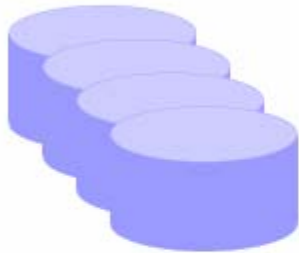
Setelah menyelesaikan bab ini, anda seharusnya dapat melakukan hal-hal berikut:

- Menggambarkan arsitektur dari database Oracle
- Mengerti arsitektur dari instance
- Menggunakan Management Framework
- Menggunakan DBCA untuk:
 - Membuat database
 - Melakukan konfigurasi database
 - Menghapus/drop database
 - Mengelola templates

Arsitektur Database



Control files



Data files



Online redo log files



Parameter file



Password file



Archive log files

Meng-explore struktur penyimpanan



Click on the links to view detailed information

Control Files

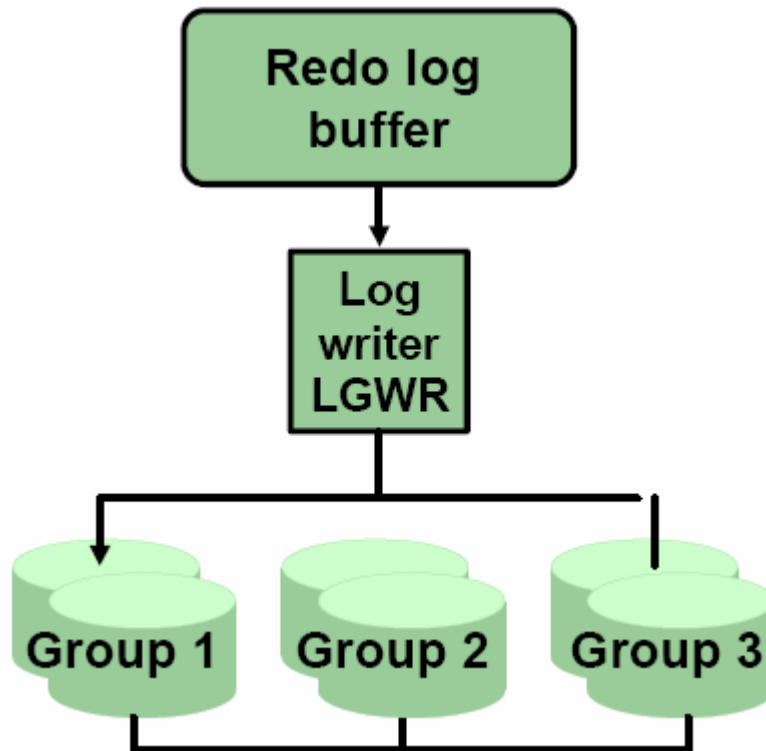
- Berisi informasi tentang struktur fisik database
- Di-multiplex untuk menghindari kehilangan file
- Dibutuhkan ketika instance di-start



Control files

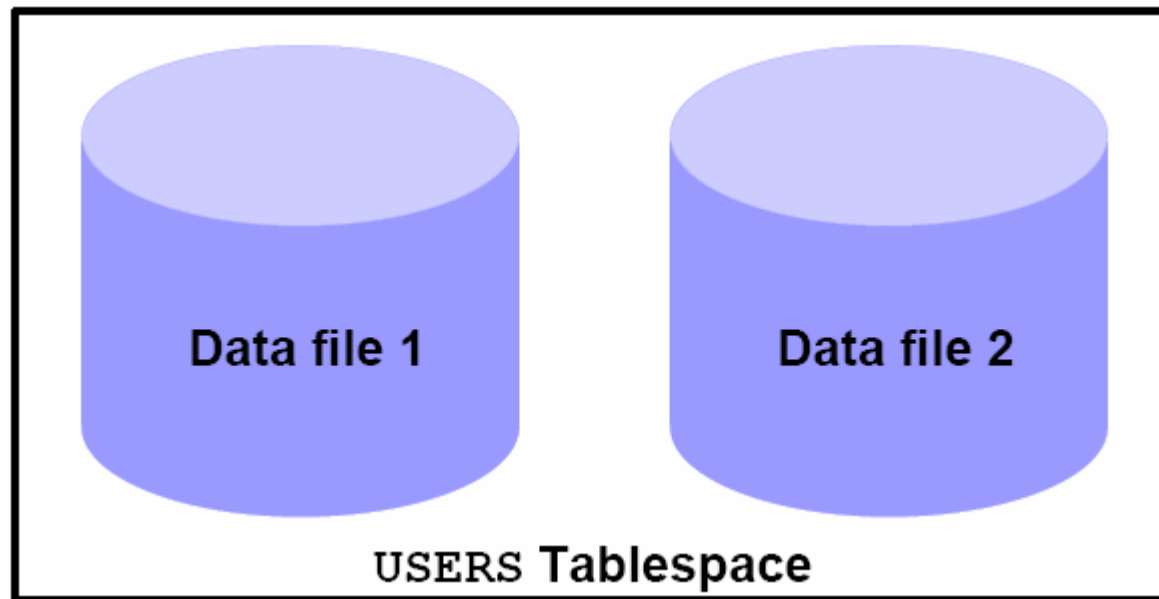
Redo Log Files

- Menyimpan perubahan pada database
- Di-multiplex untuk menghindari kehilangan file



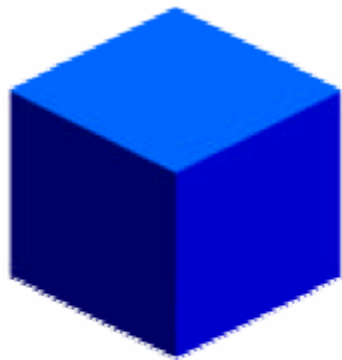
Tablespaces dan Datafiles

- Tablespaces terdiri dari satu atau lebih data files
- Data files dapat dimiliki hanya oleh satu tablespace



Segments, Extents, dan Blocks

- Segment berada dalam tablespace
- Segment terbentuk dari kumpulan extent
- Extent merupakan kumpulan dari data blok
- Data blok dipetakan pada operating system blok



Segment



Extents

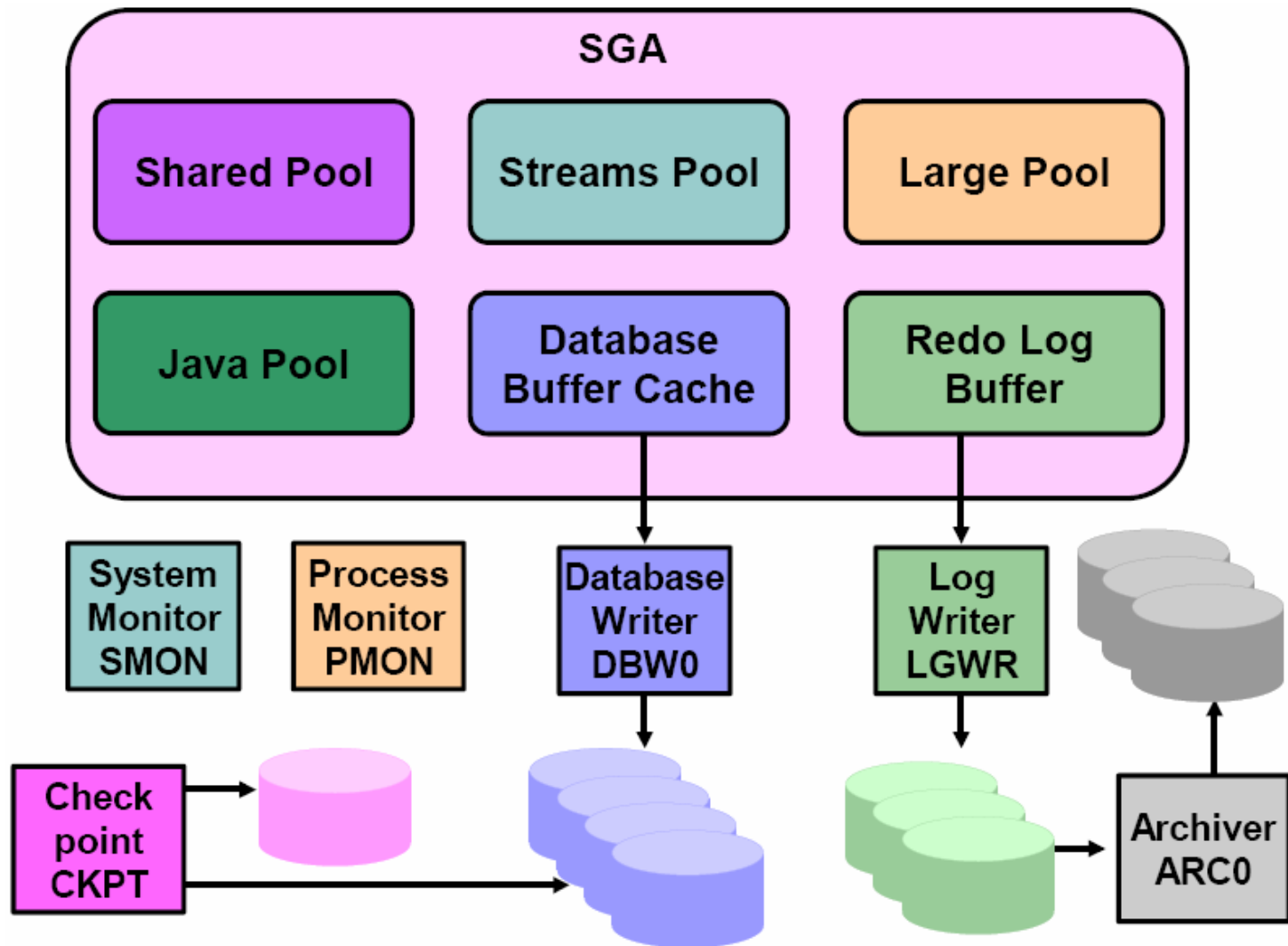


**Data
blocks**

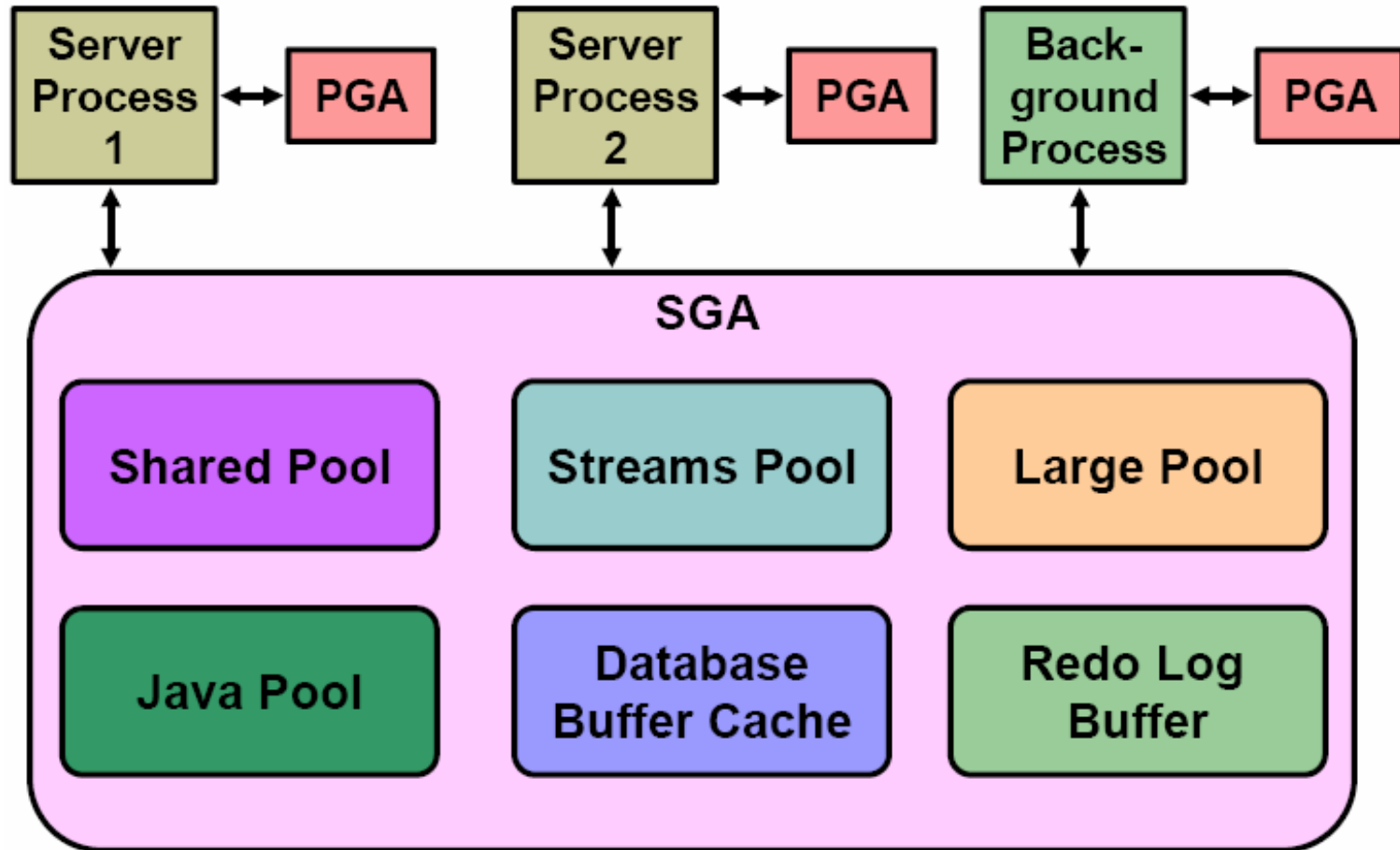


OS blocks

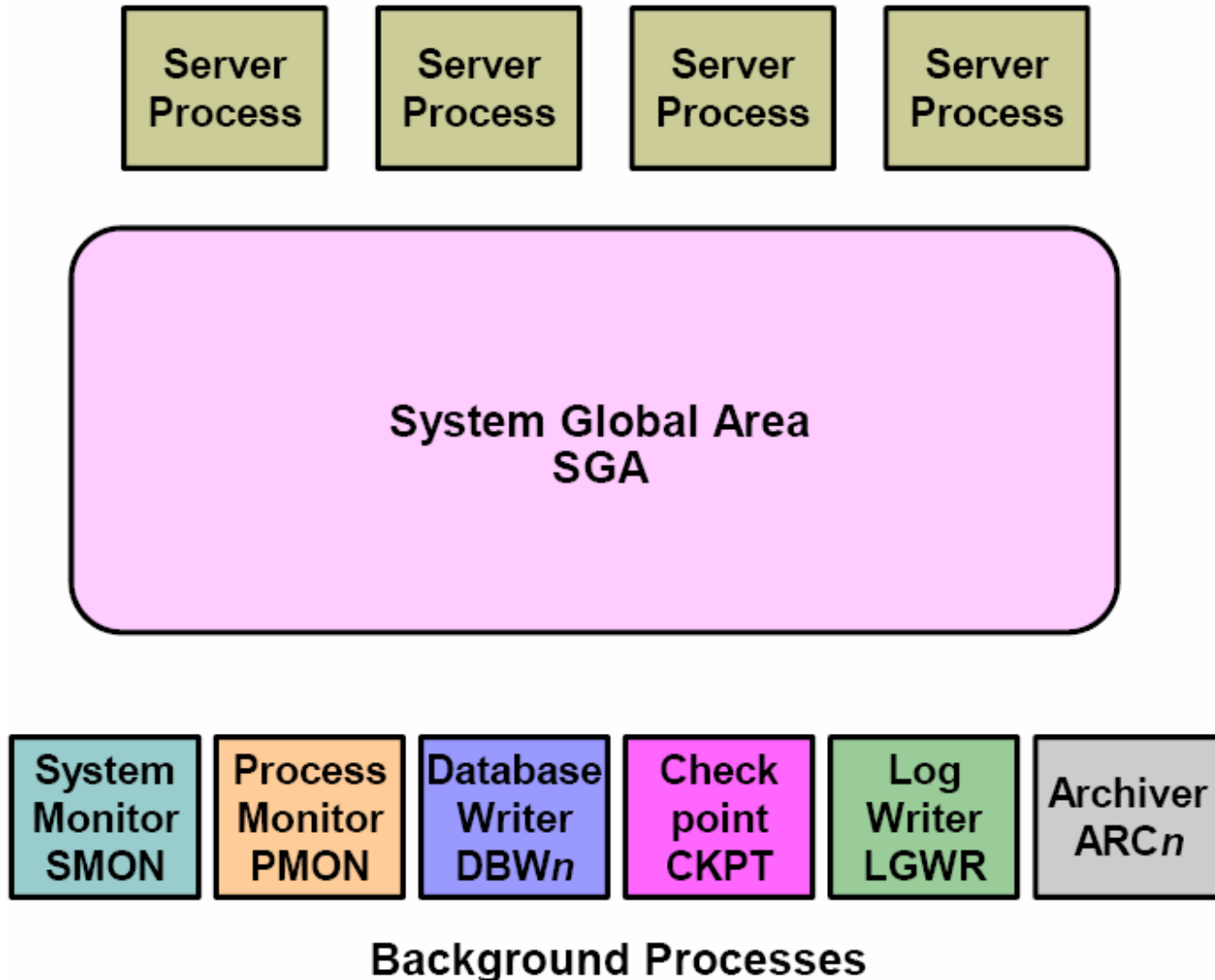
Pengelolaan Oracle Instance



Struktur Memori Oracle



Proses-proses Oracle



Data Dictionary

Workspace

Enter SQL, PL/SQL and SQL*Plus statements.

select * from dictionary;

Execute

Load Script

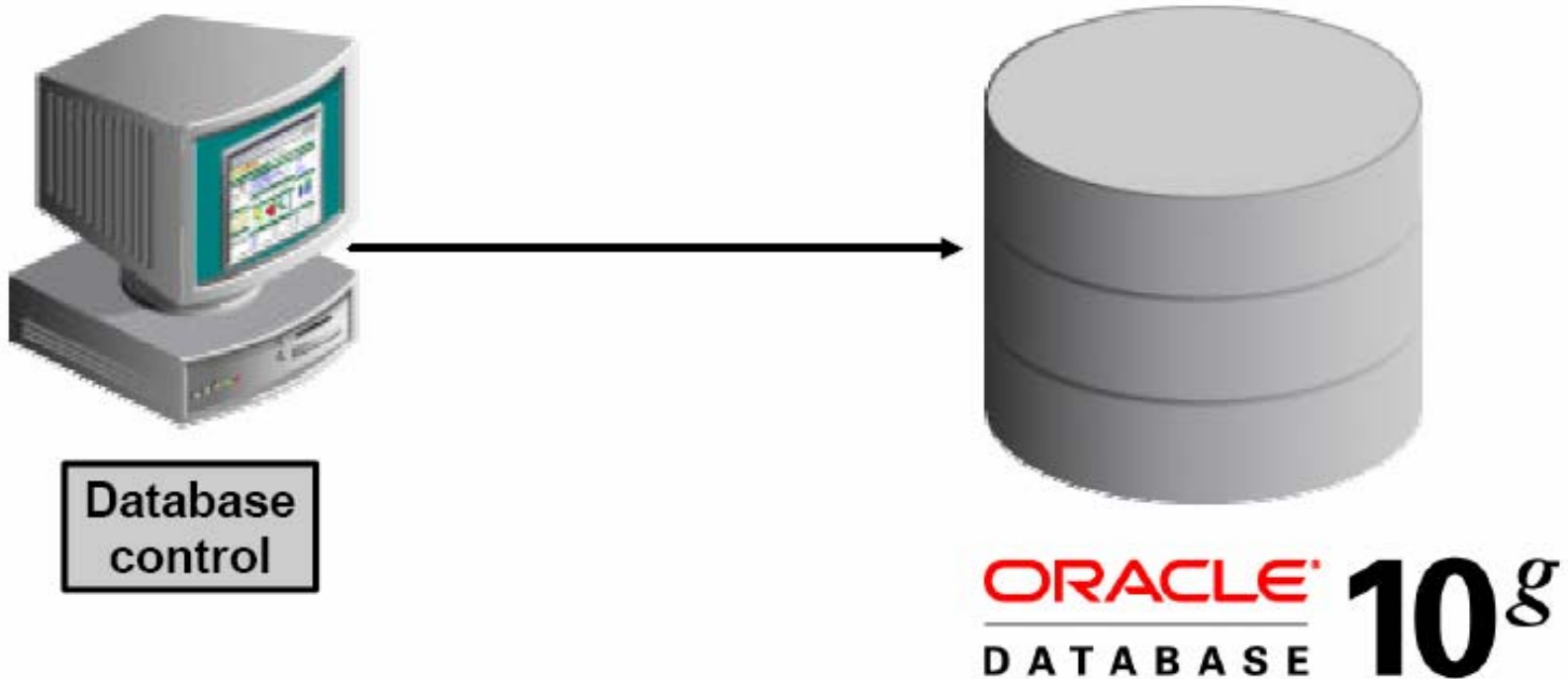
Save Script

Cancel

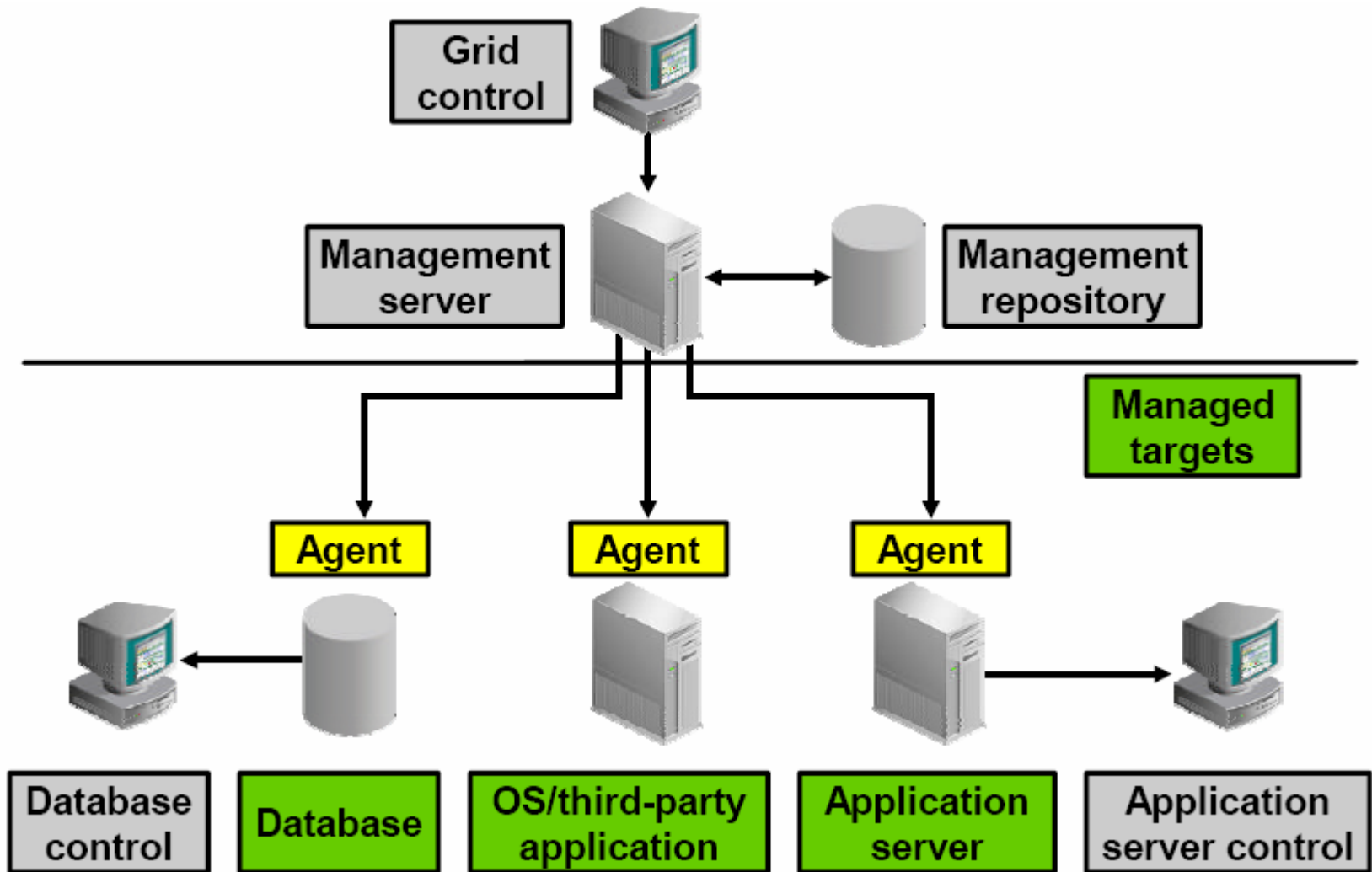
Clear

TABLE_NAME	COMMENTS
USER_RESOURCE_LIMITS	Display resource limit of the user
USER_PASSWORD_LIMITS	Display password limits of the user
USER_CATALOG	Tables, Views, Synonyms and Sequences owned by the user
ALL_CATALOG	All tables, views, synonyms, sequences accessible to the user

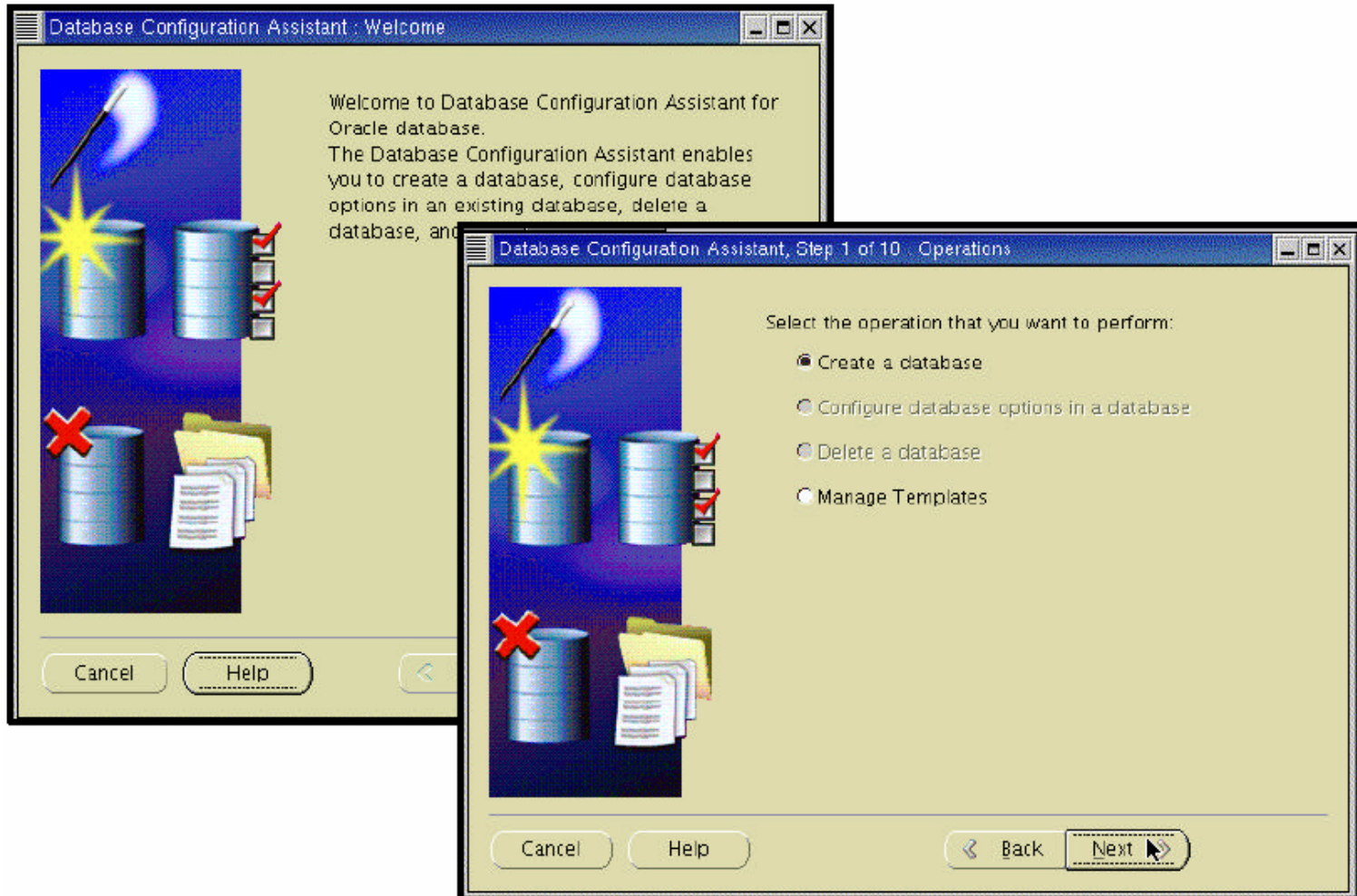
Database Control



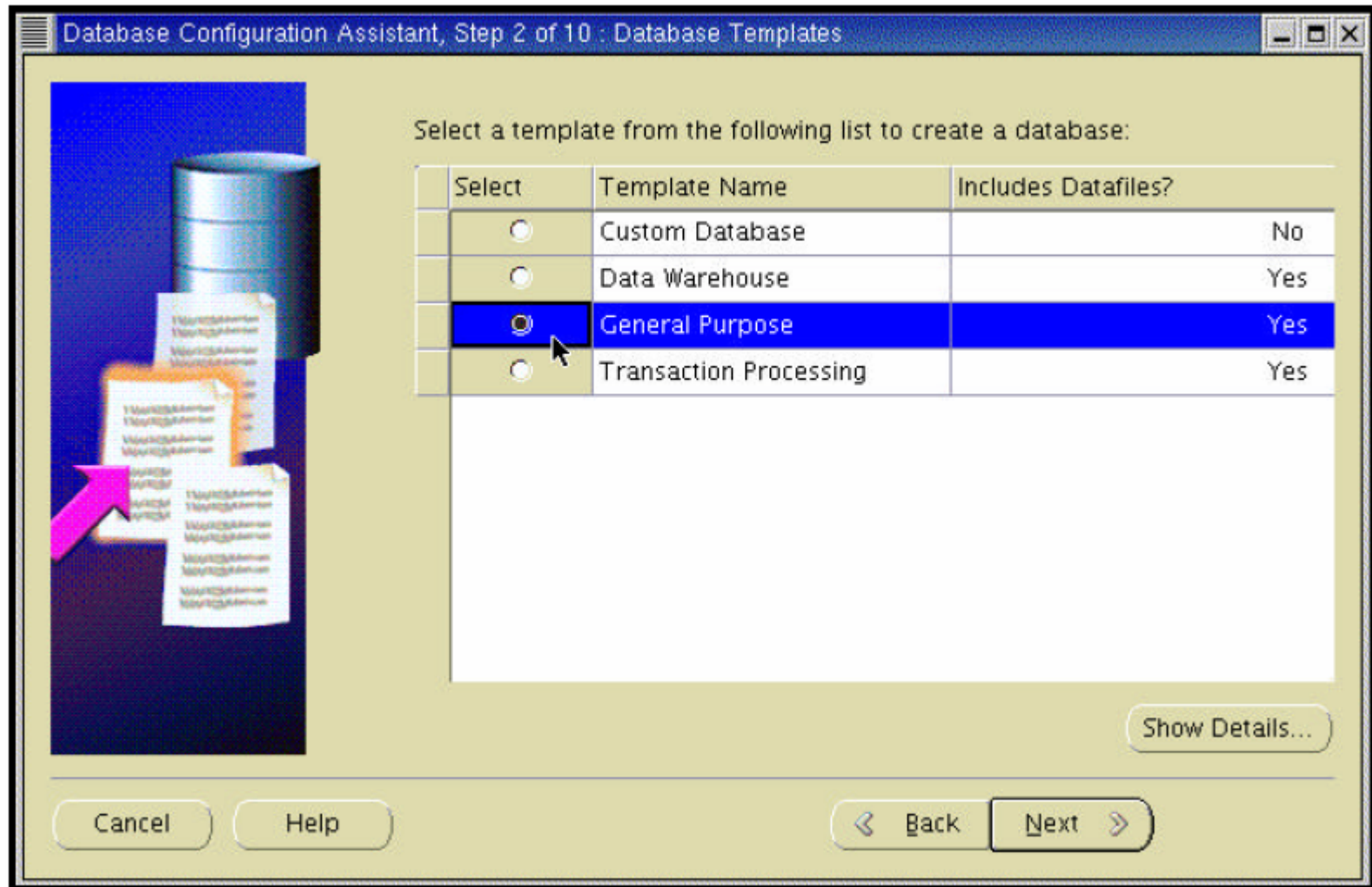
Grid Control



Database Configuration Assistant (DBCA) Overview




Membuat Database



Database Identification

Database Configuration Assistant, Step 3 of 12 : Database Identification



An Oracle database is uniquely identified by a Global Database Name, typically of the form "name.domain".

Global Database Name:

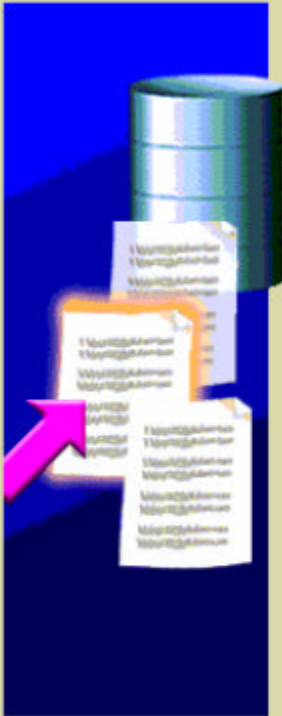
A database is referenced by at least one Oracle instance which is uniquely identified from any other instance on this computer by an Oracle System Identifier (SID).

SID:

Cancel Help < Back Next >

Management Options

Database Configuration Assistant, Step 4 of 12 : Management Options



Each Oracle database may be managed centrally using the Oracle Enterprise Manager Grid Control or locally using the Oracle Enterprise Manager Database Control. Choose the management option that you would like to use to manage this database.

☒ **Configure the Database with Enterprise Manager**

☐ Use Grid Control for Database Management

Select the Management Service:

☒ **Use Database Control for Database Management**

☐ Enable Email Notifications

Outgoing Mail (SMTP) Server:

Email Address:

☐ Enable Daily Backup

Backup Start Time: ☒ AM ☐ PM

OS Username:

Password:

Cancel Help < Back Next >

Passwords dan Storage

The image shows two overlapping windows from an Oracle database installation wizard. The background window is for password configuration, and the foreground window is for storage configuration.

Background Window: Password Configuration

☒ Use the Same Password for All Accounts

Password:

Confirm Password:

☐ Use Different Passwords

User Name	Password	Confirm Password
SYS		
SYSTEM		
DBSNMP		
SYSMAN		

Below the table is a scrollable list of other users.

Foreground Window: Storage Configuration

Select the storage mechanism you would like to use for the database.

☒ File System
Use the File System for Database storage.

☐ Automatic Storage Management (ASM)
Automatic Storage Management simplifies database storage administration and optimizes database layout for I/O performance. To use this option you must either specify a set of disks to create an ASM disk group or specify an existing ASM disk group.

☐ Raw Devices
Raw partitions or volumes can provide the required shared storage for Real Application Clusters (RAC) databases if you do not use Automatic Storage Management and a Cluster File System is not available. You need to have created one raw device for each datafile, control file, and log file you are planning to create in the database.

☐ Specify Raw Devices Mapping File

Lokasi File dan Backup Recovery

Specify locations for the Database files to be created:


☐ Use Database File Locations from Template

☒ Use Common Location for All Database Files

Database Files Location:

☐ Use Oracle-Managed Files

Database Area:

 If you want to specify different locations for any database files, pick either of the above options and use the Storage page to specify each location.

Choose the recovery options for the database:

☒ Specify Flash Recovery Area

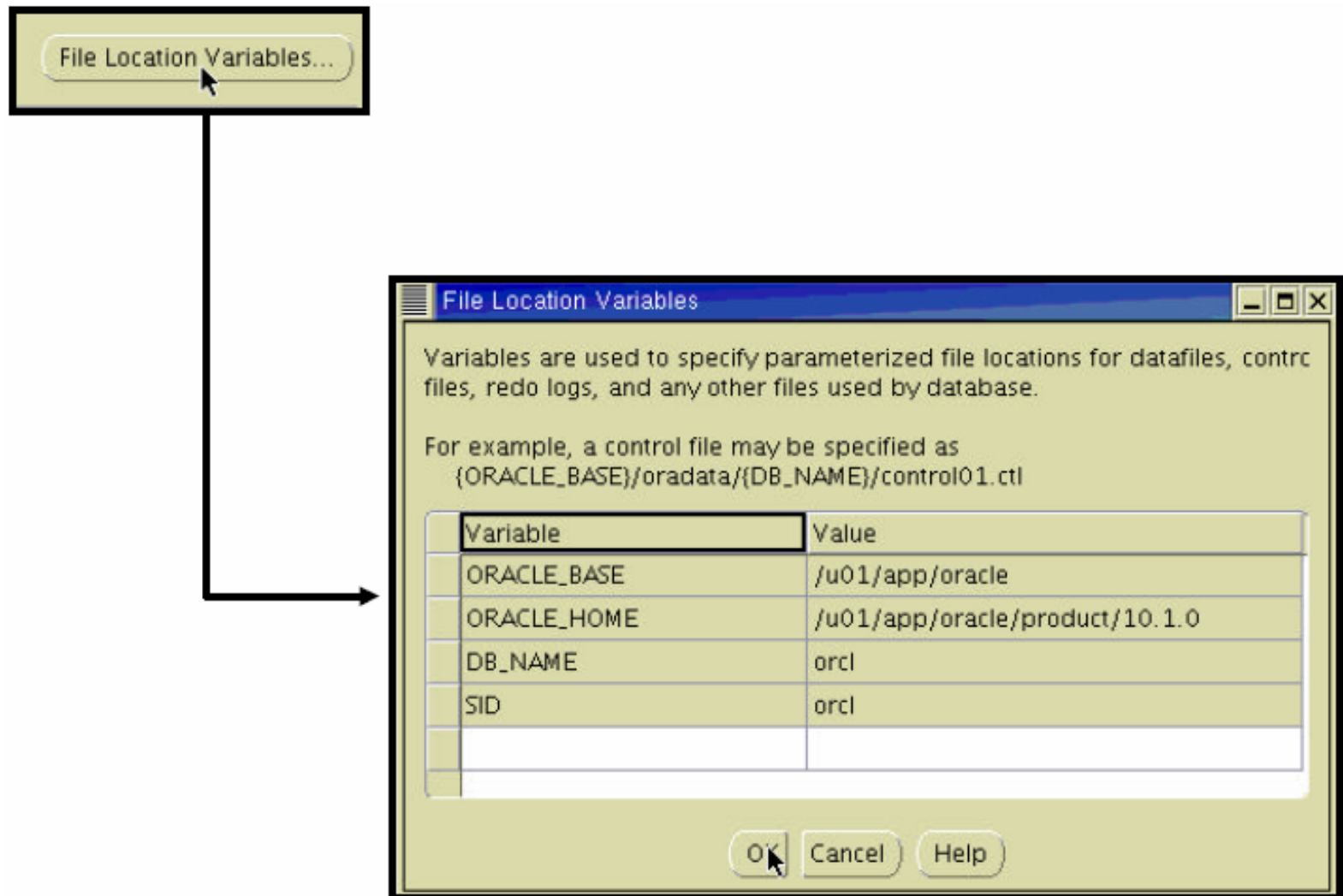
This is used as the default for all backup and recovery operations, and is also required for automatic backup using Enterprise Manager. Oracle recommends that the database files and recovery files be located on physically different disks for data protection and performance.

Flash Recovery Area:

Flash Recovery Area Size:

☐ Enable Archiving

File Location Variables



Content dan Initialization Parameters

Sample Schemas

Custom Scripts

Sample Schemas illustrate the use of a layered approach to complexity, and are used by some demonstration programs. Installing this will give you the following schemas in your database: Human Resources, Order Entry, Online Catalog , Product Media, Queued Shipping, Sales History . It will also create a tablespace called EXAMPLE. The tablespace will be about 130 MB.

Specify whether or not to add

☒ Sample Schemas

Memory

Sizing

Character Sets

Connection Mode

☐ Typical - Allocate memory as a percentage of the total physical memory (1000 MB)
Percentage:

☒ Custom
Shared Memory Management: ☐ Automatic ☒ Manual

Shared Pool:


Buffer Cache:

Java Pool:

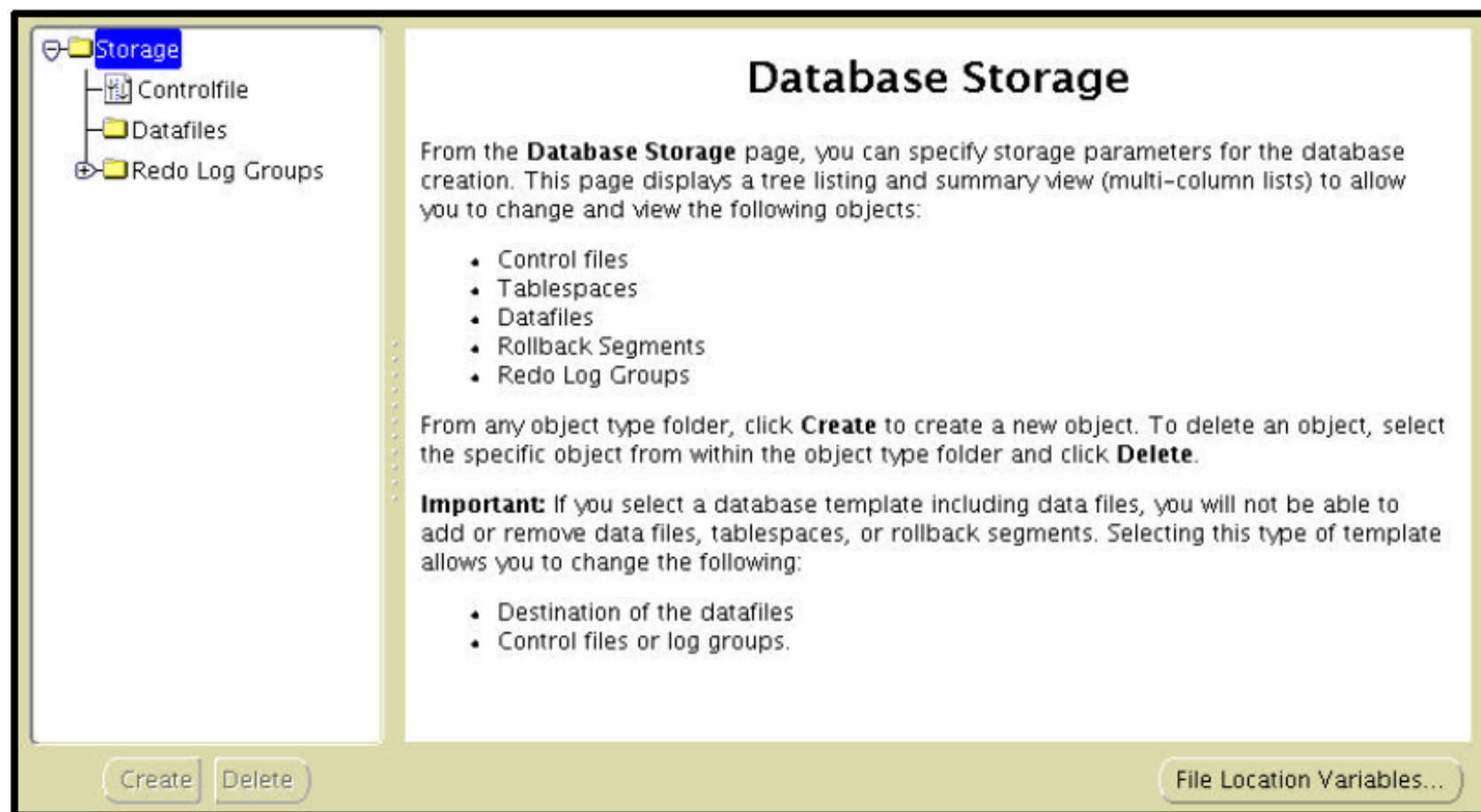
Large Pool:

PGA Size:

Total Memory for Oracle: 224 M Bytes

 Total memory includes 40MB of Oracle Process Size and the defaults for the empty parameters, if any.

Database Storage



The screenshot shows the 'Database Storage' configuration window. On the left is a tree view under the 'Storage' folder, containing 'Controlfile', 'Datafiles', and 'Redo Log Groups'. The main area is titled 'Database Storage' and contains instructional text and a list of objects. At the bottom are 'Create' and 'Delete' buttons, and a 'File Location Variables...' link.

Database Storage

From the **Database Storage** page, you can specify storage parameters for the database creation. This page displays a tree listing and summary view (multi-column lists) to allow you to change and view the following objects:

- Control files
- Tablespaces
- Datafiles
- Rollback Segments
- Redo Log Groups

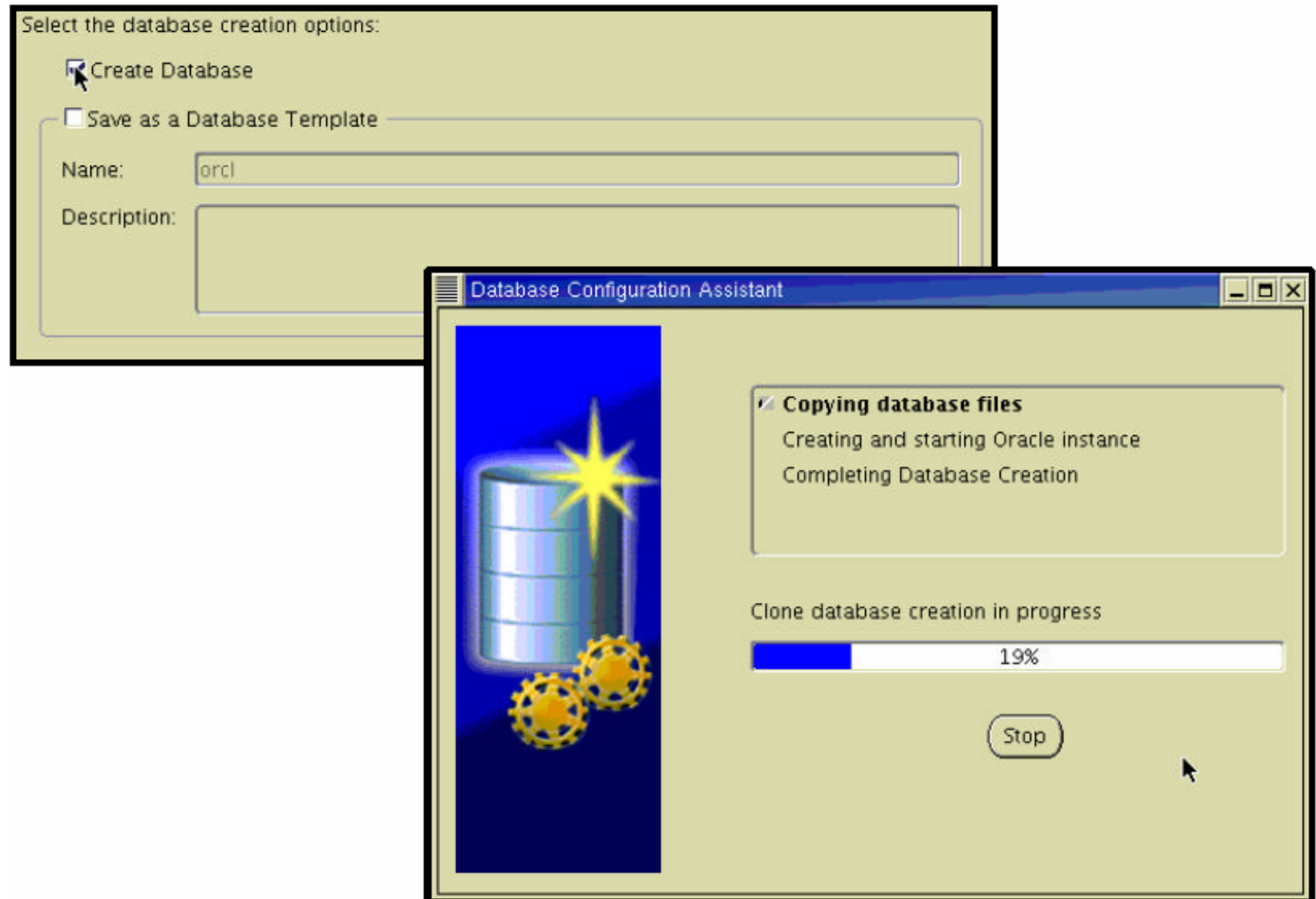
From any object type folder, click **Create** to create a new object. To delete an object, select the specific object from within the object type folder and click **Delete**.

Important: If you select a database template including data files, you will not be able to add or remove data files, tablespaces, or rollback segments. Selecting this type of template allows you to change the following:

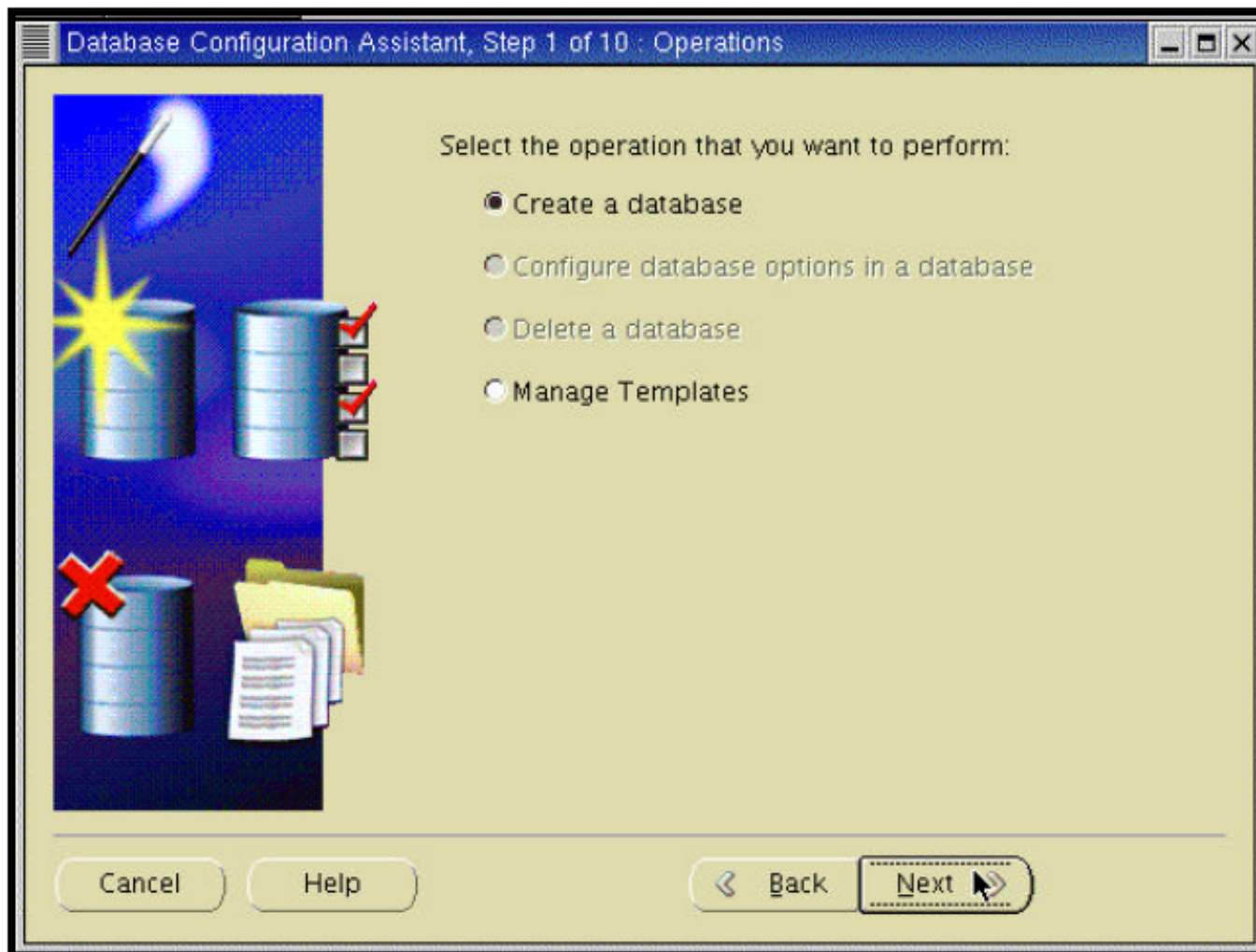
- Destination of the datafiles
- Control files or log groups.

Create Delete File Location Variables...

Creation Options dan Create



Action-action lain dengan DBCA



Ringkasan

Pada bab ini, anda seharusnya telah mempelajari bagaimana cara untuk:

- Menggambarkan arsitektur dari database Oracle
- Mengerti arsitektur dari instance
- Menggunakan Management Framework
- Menggunakan DBCA untuk:
 - Membuat database
 - Melakukan konfigurasi database
 - Menghapus/drop database
 - Mengelola templates