

Oracle Database 11g

Database Creation and Configuration Guide

Disclaimer

The instructions contained within this document serve merely as a reference for guidance purposes only. Therefore, Vasont Systems does not assume any liability or responsibility related to any Oracle installation issues, or for the consequences of any actions taken on the basis of the information provided herein, unless Vasont Systems has been contracted by your organization to do so. Procedures and examples contained within this document may vary depending upon both your version of Oracle and operating system. The instructions within this document have been compiled for the **Windows Operating System**. For information pertaining to other operating systems, as well as other installation issues, refer to your specific Oracle documentation.



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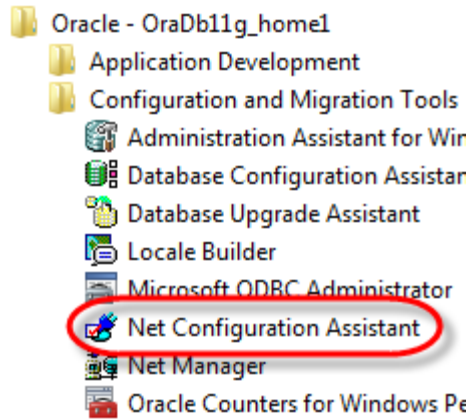
Oracle Database 11g Database Creation and Configuration

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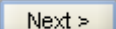
Net Configuration Assistant - Create a Listener

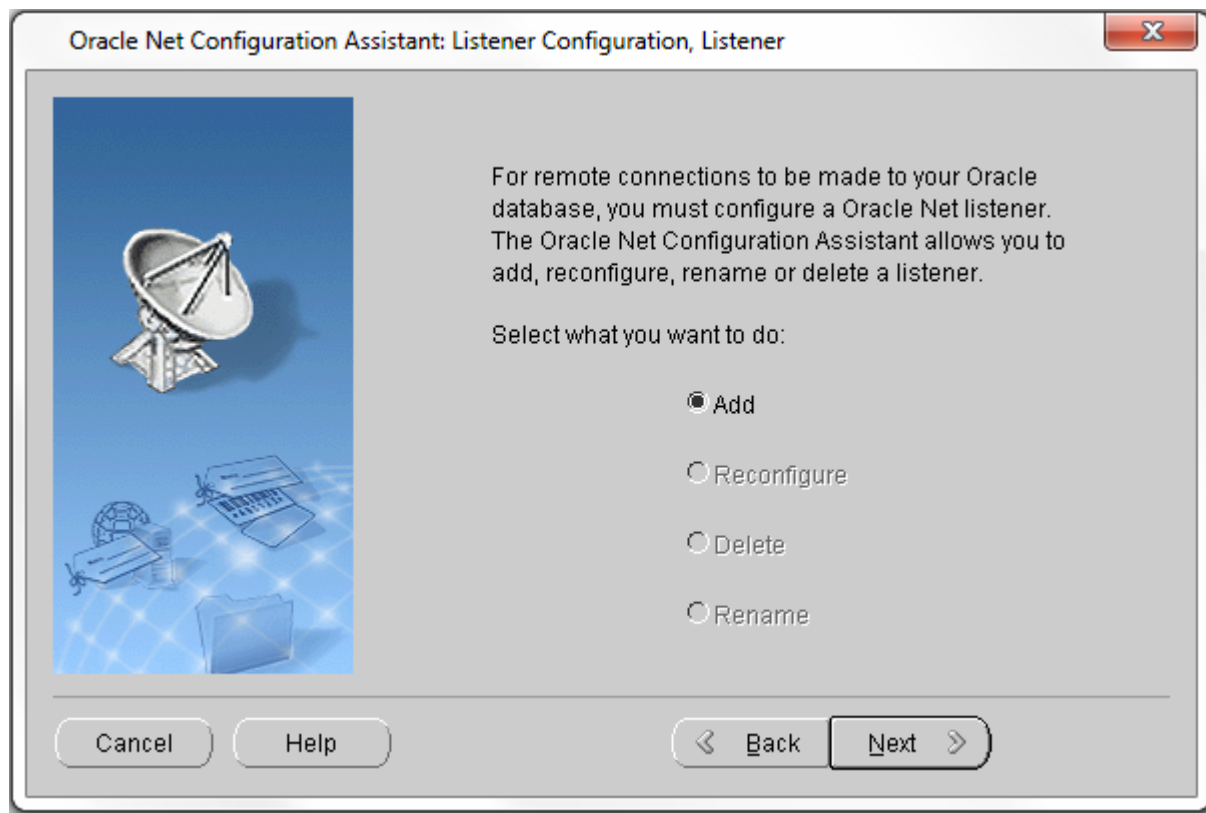
Navigate to your Oracle 11 program group in your programs menu and execute the "Net Configuration Assistant"

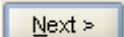


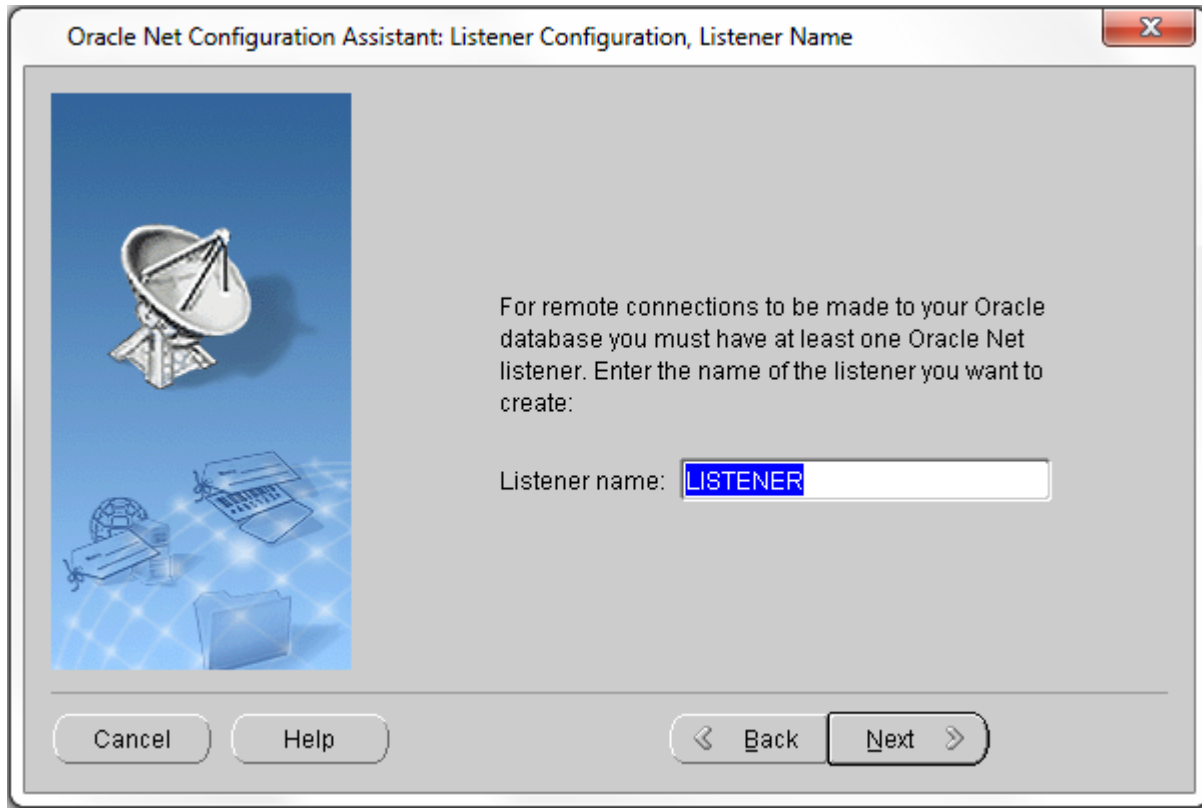
Step 1 - Listener Configuration



- Select the "Listener Configuration" radio button.
- Select 

Step 2 - Add Listener

- Select the "Add" radio button.
- Select 

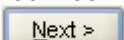
Step 2 - Listener Name

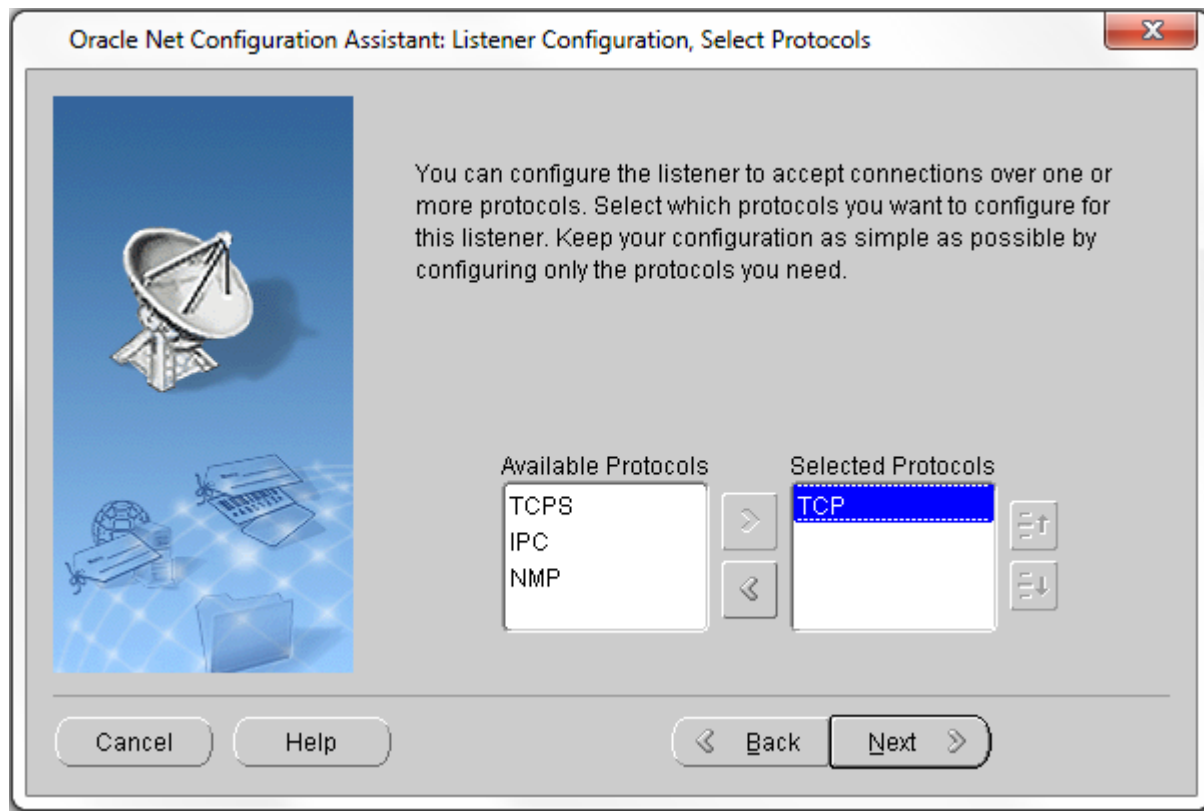
Oracle Net Configuration Assistant: Listener Configuration, Listener Name

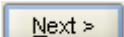
For remote connections to be made to your Oracle database you must have at least one Oracle Net listener. Enter the name of the listener you want to create:

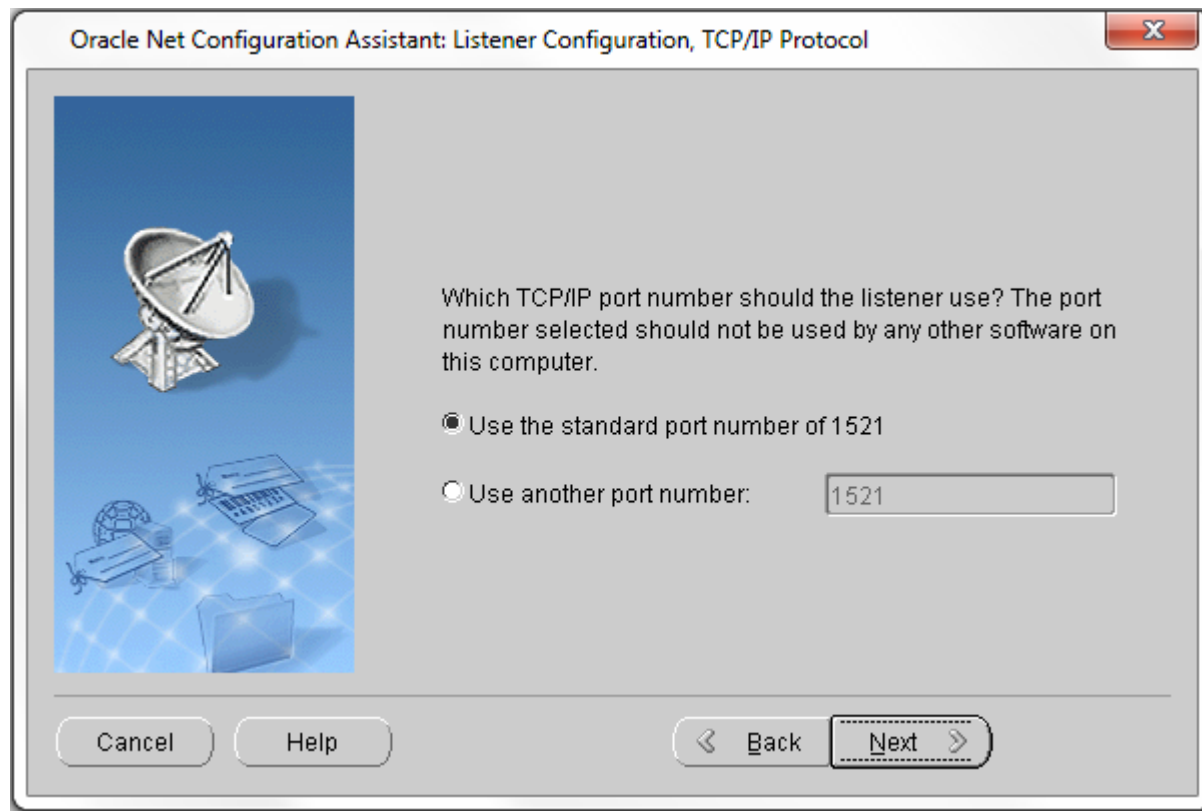
Listener name:

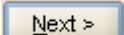
Cancel Help < Back Next >

- By default, the listener name is set to "LISTENER". If you would like to name this something else, please feel free..
- Select 

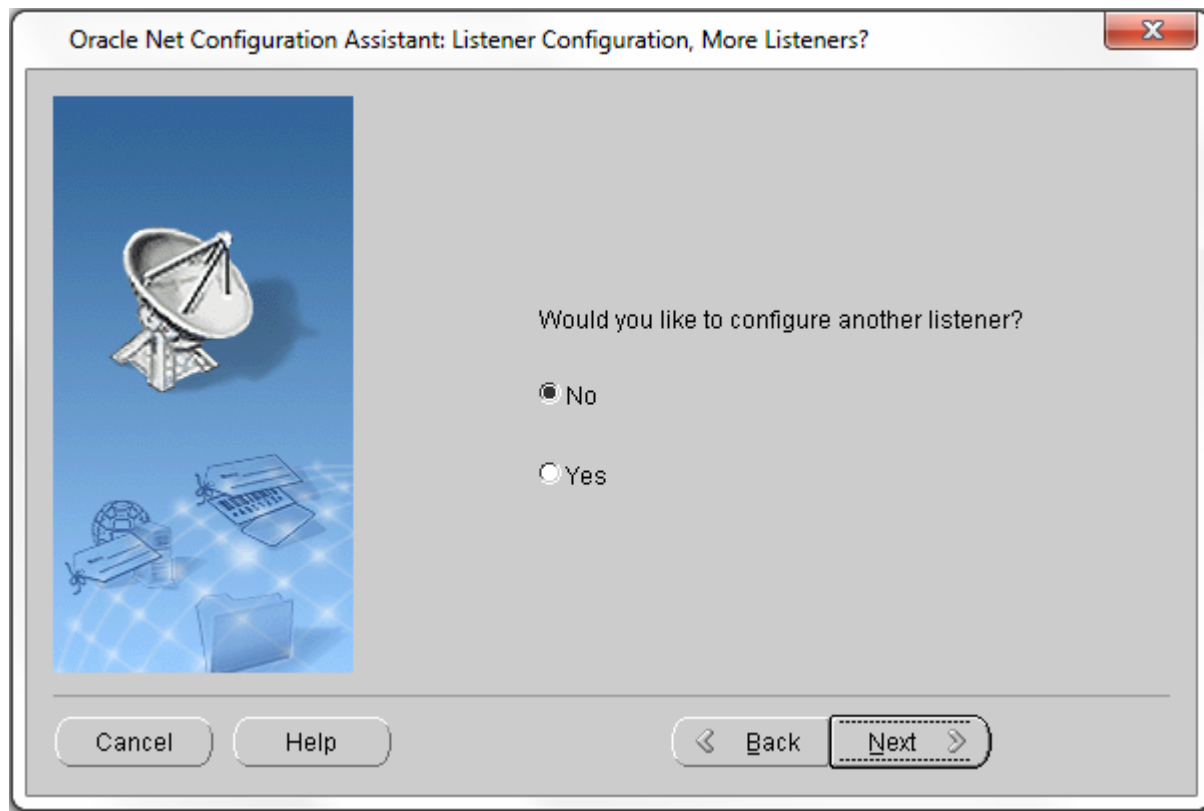
Step 3 - Select a Protocol

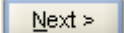
- The most common protocol is TCP. TCP is selected by default..
- Select 

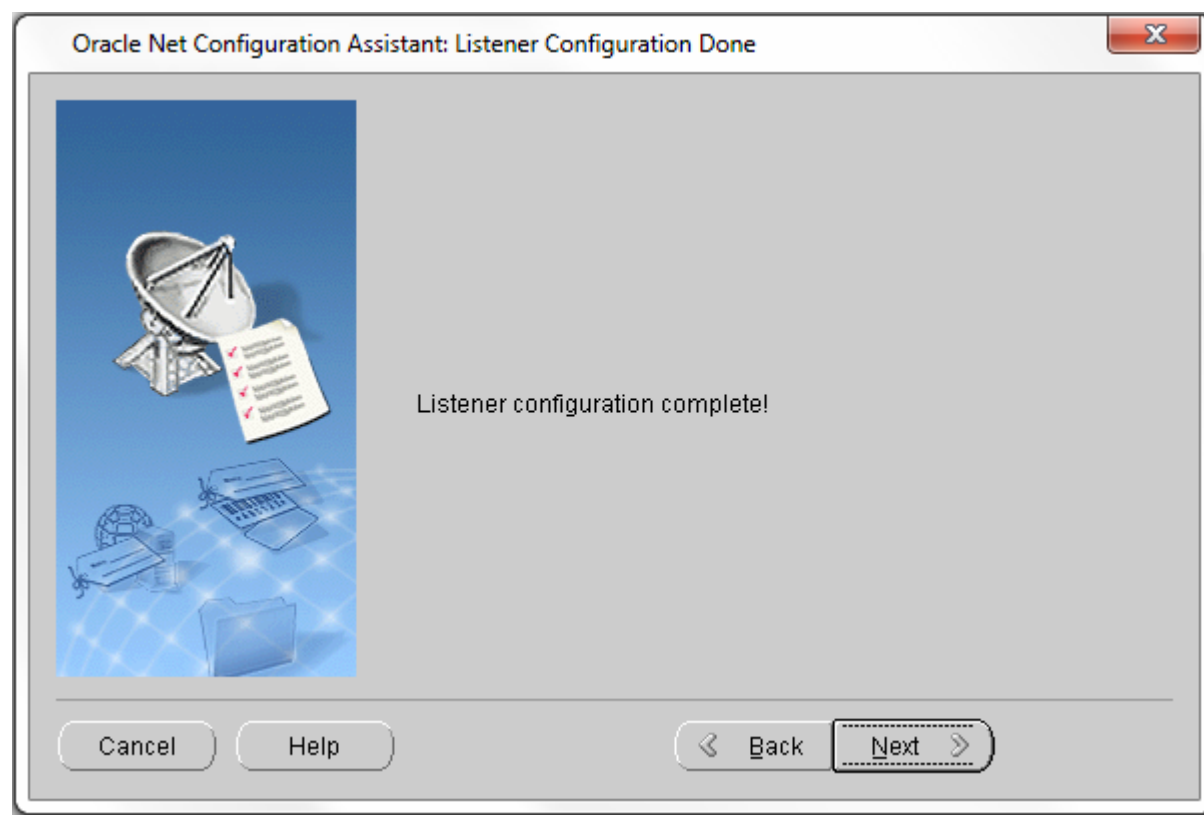
Step 4 - TCP/IP Port Number

- The port number "1521" is the most common and frequently used across many databases..
- Select 

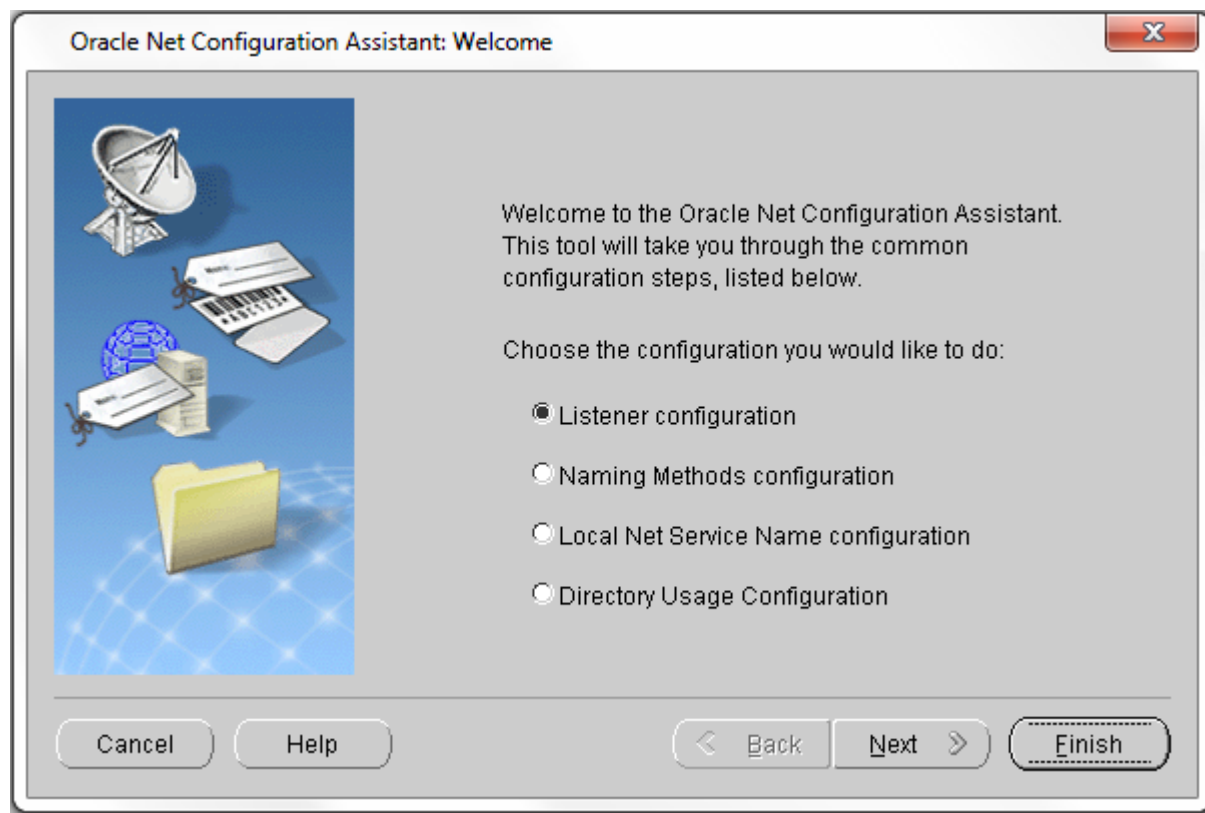
Step 5 - Create Another Listener



- Most databases require only a single listener. Select "No".
- Select 

Step 6 - Listener Configuration Complete

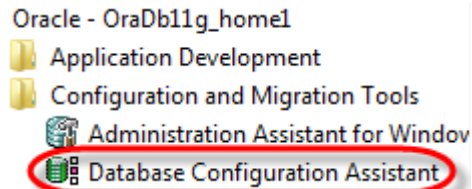
- Select 

Step 7 - Finish

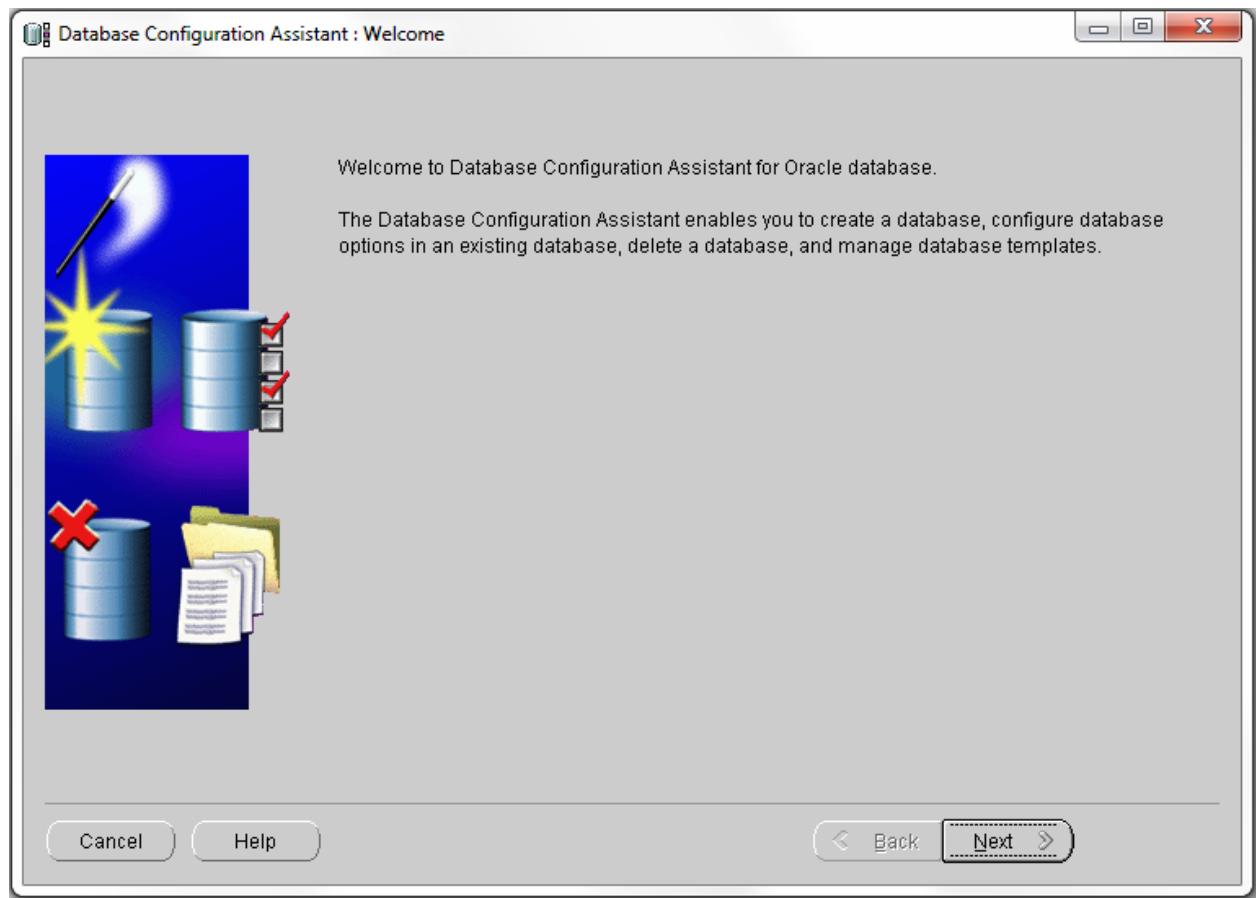
- Click on 

Database Configuration Assistant - Create the Database

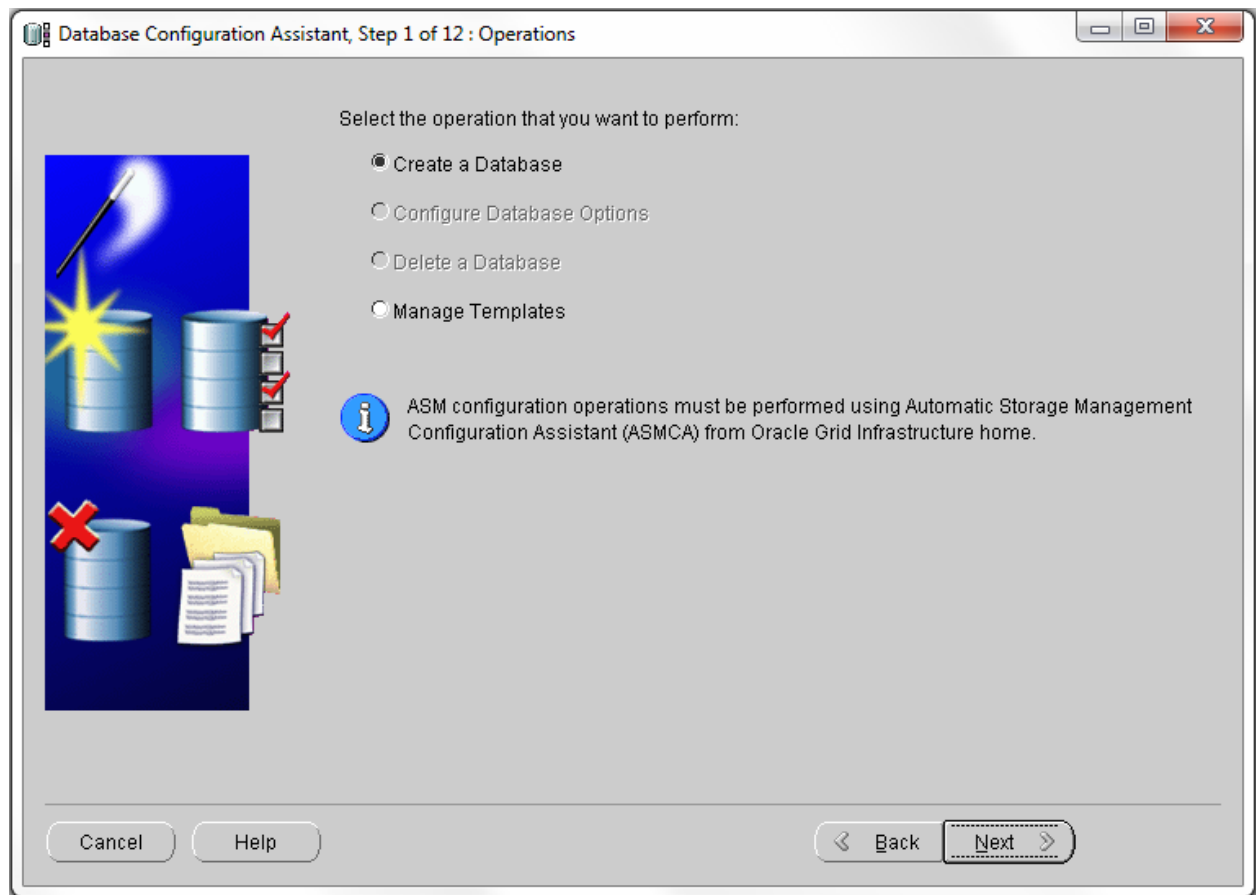
Navigate to your Oracle 11 program group in your programs menu and execute the "Database Configuration Assistant"



Step 1 - Welcome

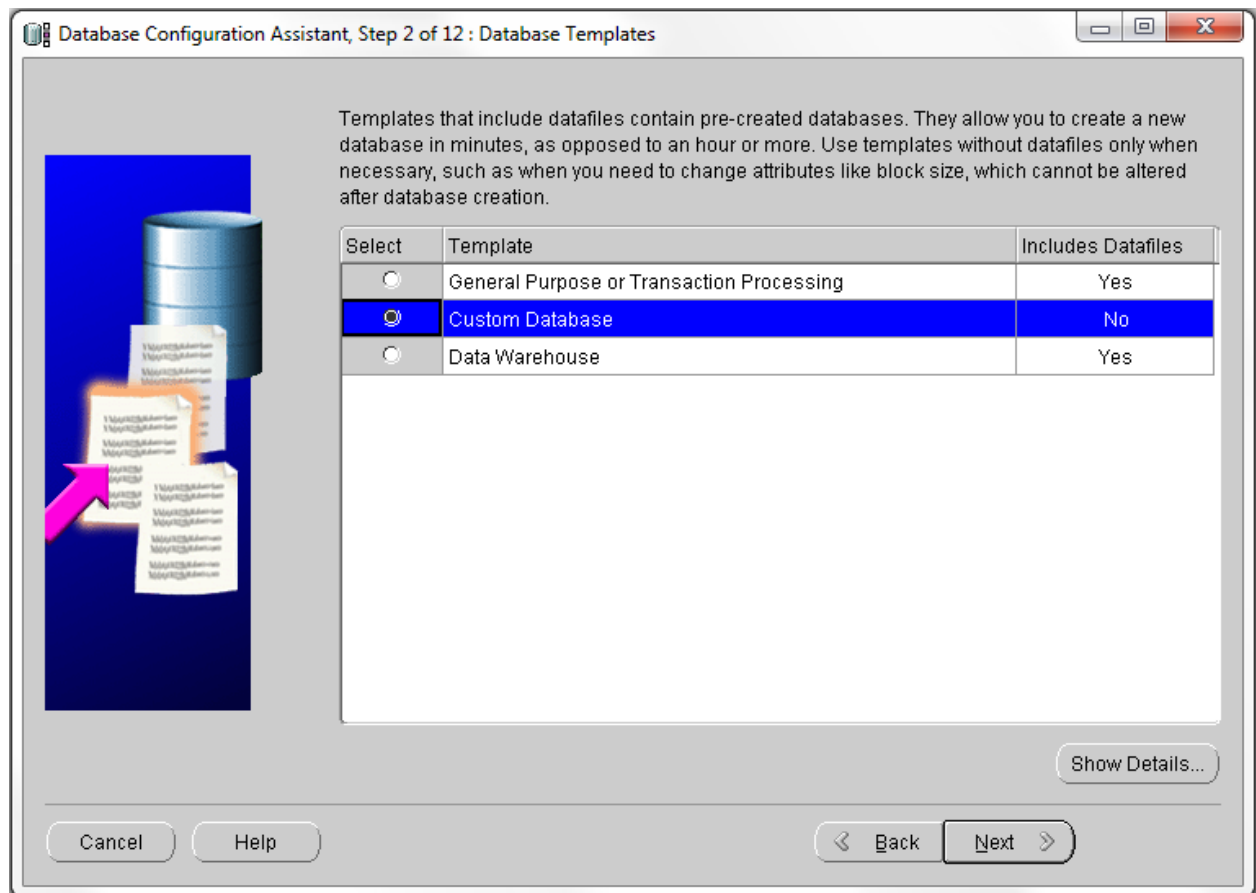


- Select 

Step 2 - Select Operation

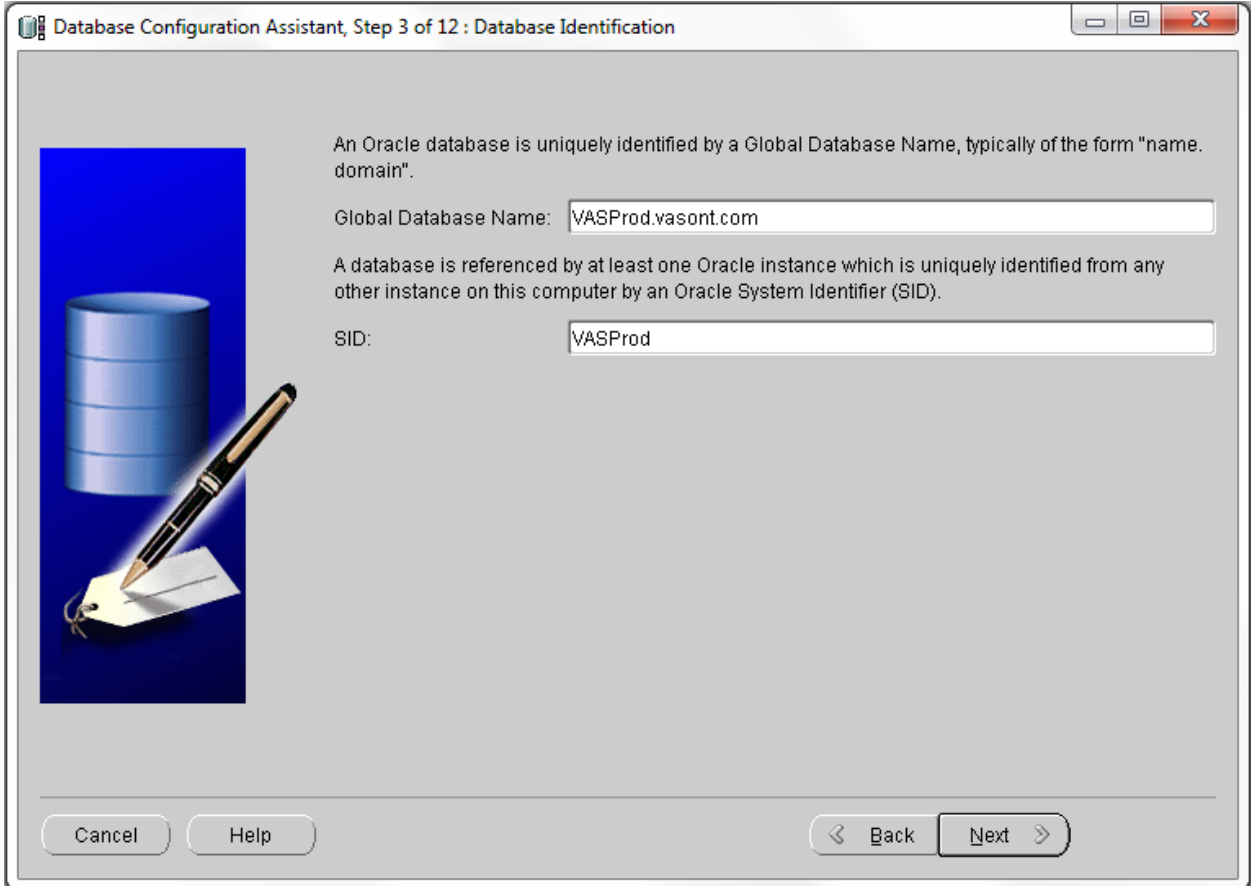
- Select the "Create a Database" radio button.
- Select 

Step 3 - Select Database Template



- Select the "Custom Database" radio button.
- Select 

Step 4 - 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:

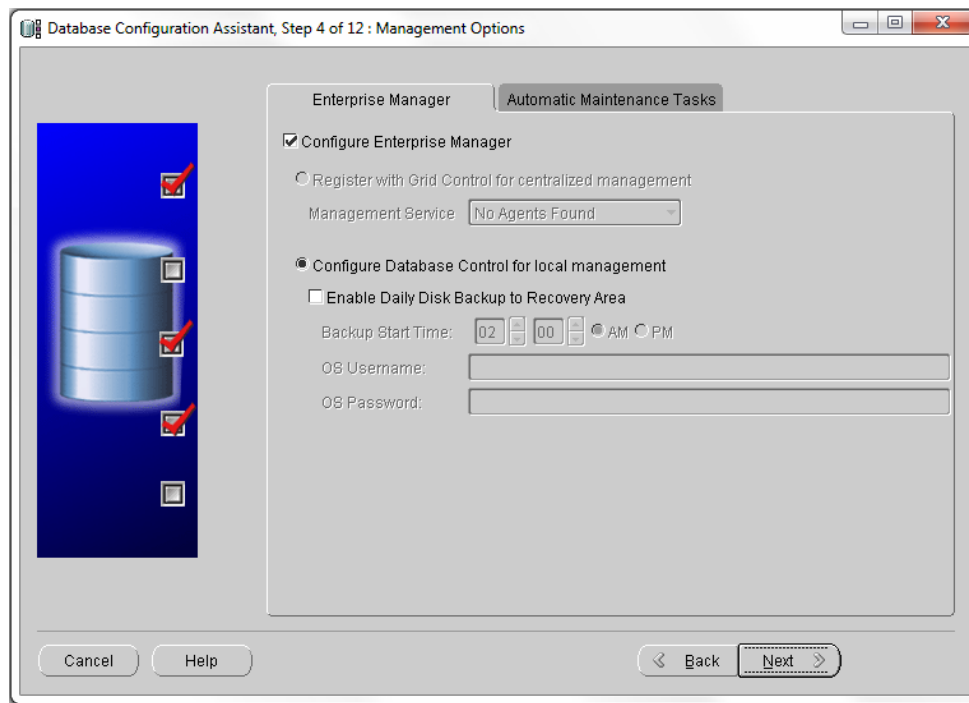
A database is referenced by at least one Oracle instance which is uniquely identified from any other instance on this computer by an Oracle System Identifier (SID).

SID:

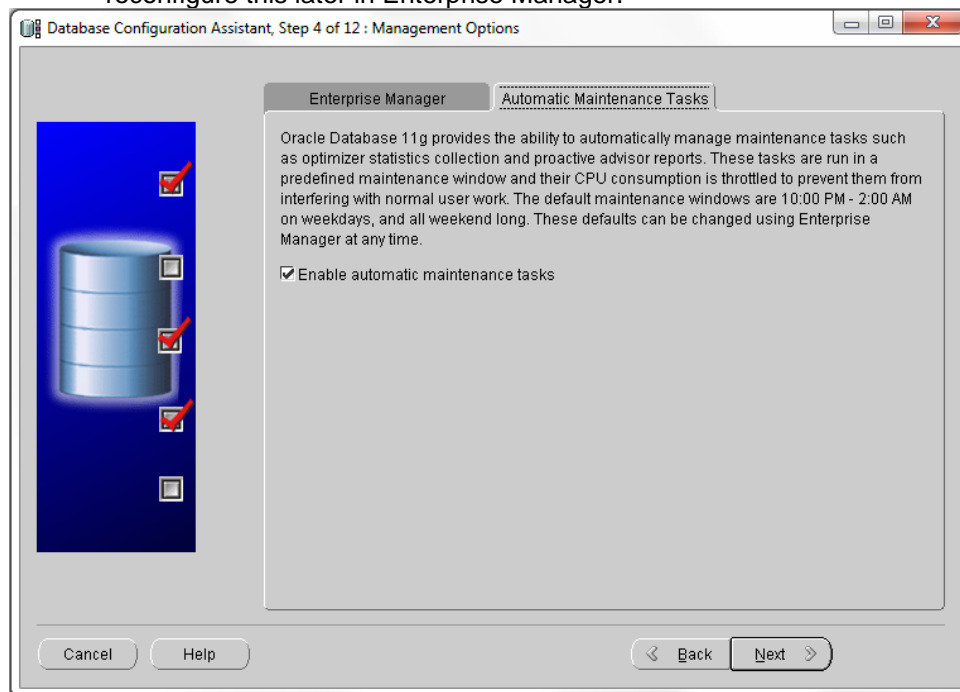
Cancel Help Back Next

- Enter the Global Database Name. The SID should automatically be filled in once the Global Database name has been set..
- Select 

Step 4 - Database Identification

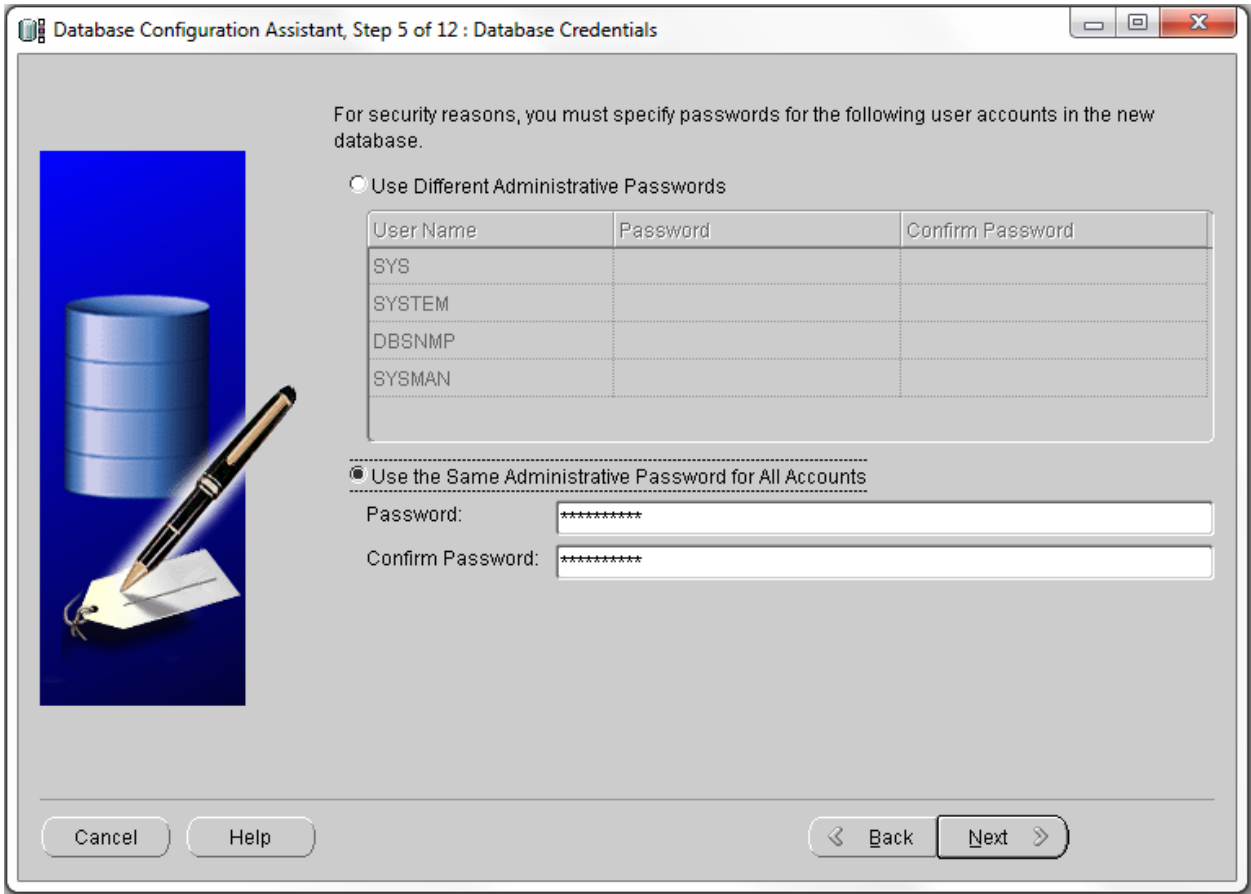


- Under the "Enterprise Manager" tab, make sure the "Configure Enterprise Manager" box is checked as well as the radio button for "Configure Database Control for local management".
- Select the "Automatic Maintenance Tasks" tab. Enabling Automatic Maintenance Tasks are up to the DBA. It is a good idea to enable these when you first create your database. You can reconfigure this later in Enterprise Manager.



- Select **Next >**

Step 5 - Database Credentials



Database Configuration Assistant, Step 5 of 12: Database Credentials

For security reasons, you must specify passwords for the following user accounts in the new database.

☐ Use Different Administrative Passwords

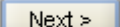
User Name	Password	Confirm Password
SYS		
SYSTEM		
DBSNMP		
SYSMAN		

☒ Use the Same Administrative Password for All Accounts

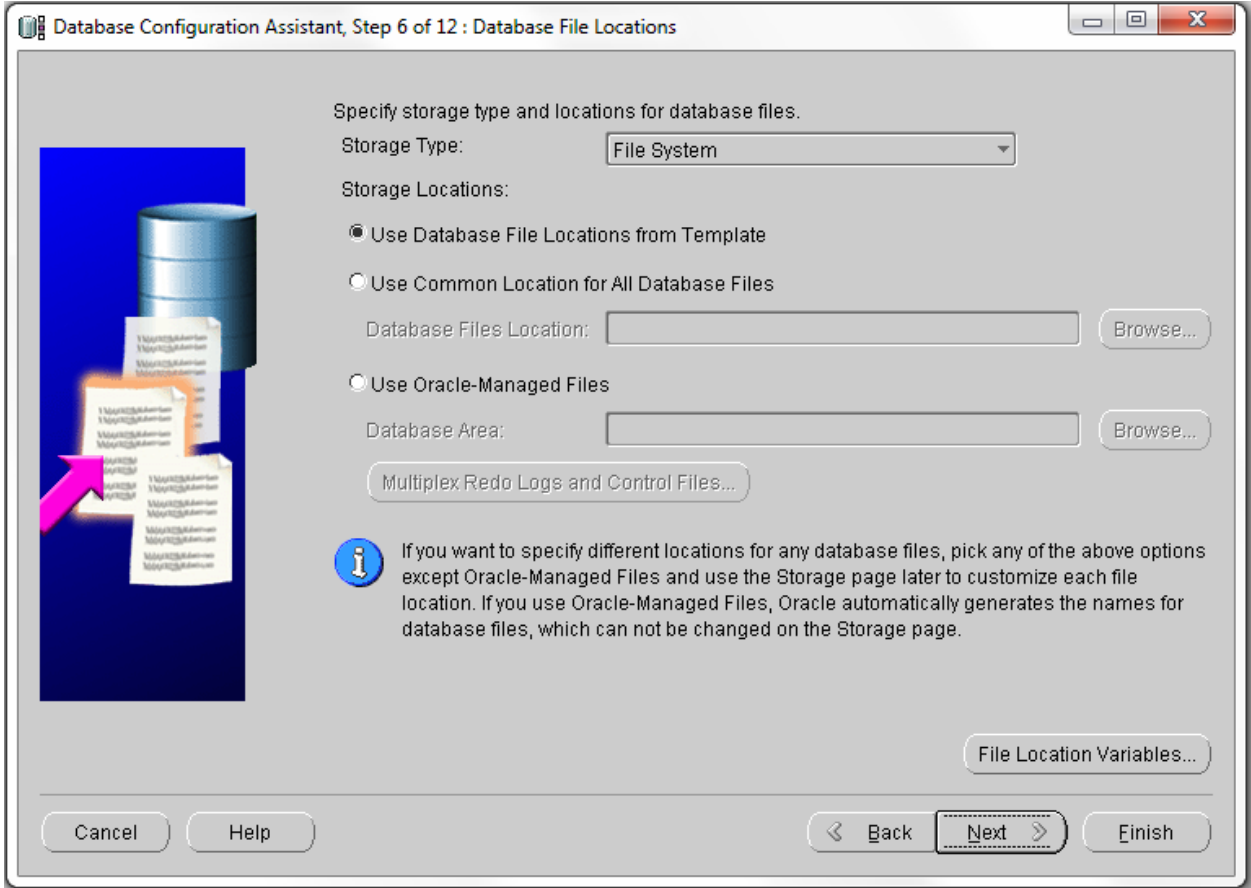
Password:

Confirm Password:

Cancel Help < Back Next >

- Enter the administrative passwords for the system users. You can either set a different password for each of the system users, or use a universal password.
- Select 

Step 6 - Database File Locations



Database Configuration Assistant, Step 6 of 12 : Database File Locations

Specify storage type and locations for database files.

Storage Type: File System


Storage Locations:

- ☒ Use Database File Locations from Template
- ☐ Use Common Location for All Database Files
- ☐ Use Oracle-Managed Files

Database Files Location: Browse...

Database Area: Browse...

Multiplex Redo Logs and Control Files...

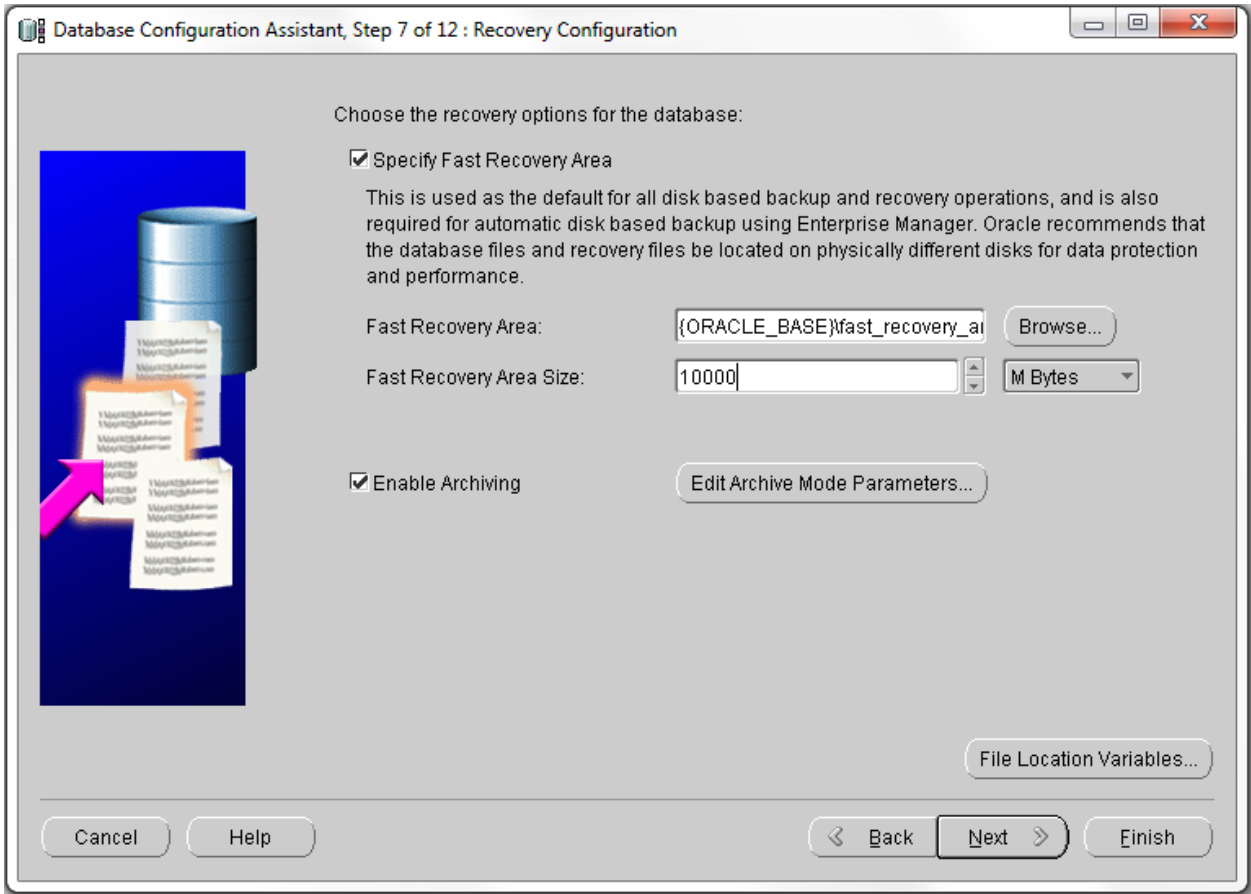
 If you want to specify different locations for any database files, pick any of the above options except Oracle-Managed Files and use the Storage page later to customize each file location. If you use Oracle-Managed Files, Oracle automatically generates the names for database files, which can not be changed on the Storage page.

File Location Variables...

Cancel Help < Back Next > Finish

- Storage Type : File System
- Using the Database File Locations from Template is recommended, but you can specify the location if desired.
- Select Next >

Step 7 - Recovery Configuration



Database Configuration Assistant, Step 7 of 12 : Recovery Configuration

Choose the recovery options for the database:

☒ Specify Fast Recovery Area

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

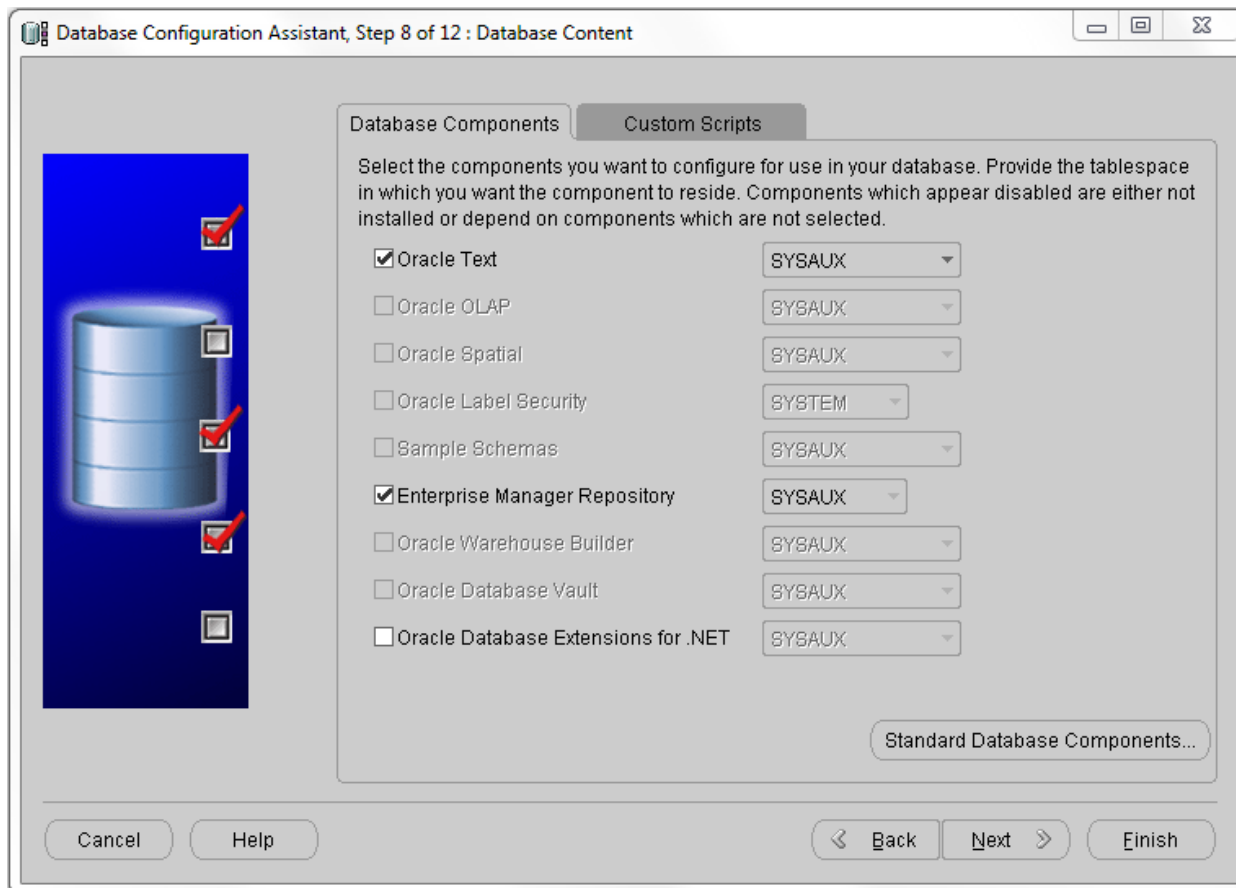
Fast Recovery Area:

Fast Recovery Area Size:

☒ Enable Archiving

- Specify Fast Recovery Area - The Fast Recovery Area Size all depends and how large your Vasont schema is and what you intend it to be in the future. A safe play is to set the size to 10,000 M Bytes. You can always change this size at a later date.
- Enabling Archiving is useful as well if you ever want to perform a tablespace or database point-in-time recovery..
- Select

Step 8 - Database Content and Components



Database Configuration Assistant, Step 8 of 12 : Database Content

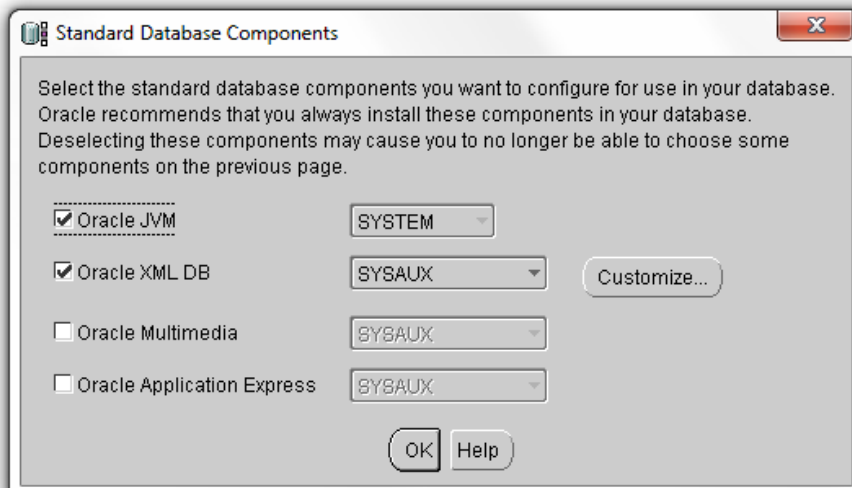
Database Components | Custom Scripts

Select the components you want to configure for use in your database. Provide the tablespace in which you want the component to reside. Components which appear disabled are either not installed or depend on components which are not selected.

<input checked="" type="checkbox"/> Oracle Text	SYSAUX
<input type="checkbox"/> Oracle OLAP	SYSAUX
<input type="checkbox"/> Oracle Spatial	SYSAUX
<input type="checkbox"/> Oracle Label Security	SYSTEM
<input type="checkbox"/> Sample Schemas	SYSAUX
<input checked="" type="checkbox"/> Enterprise Manager Repository	SYSAUX
<input type="checkbox"/> Oracle Warehouse Builder	SYSAUX
<input type="checkbox"/> Oracle Database Vault	SYSAUX
<input type="checkbox"/> Oracle Database Extensions for .NET	SYSAUX

Standard Database Components...

Cancel Help Back Next Finish




Standard Database Components

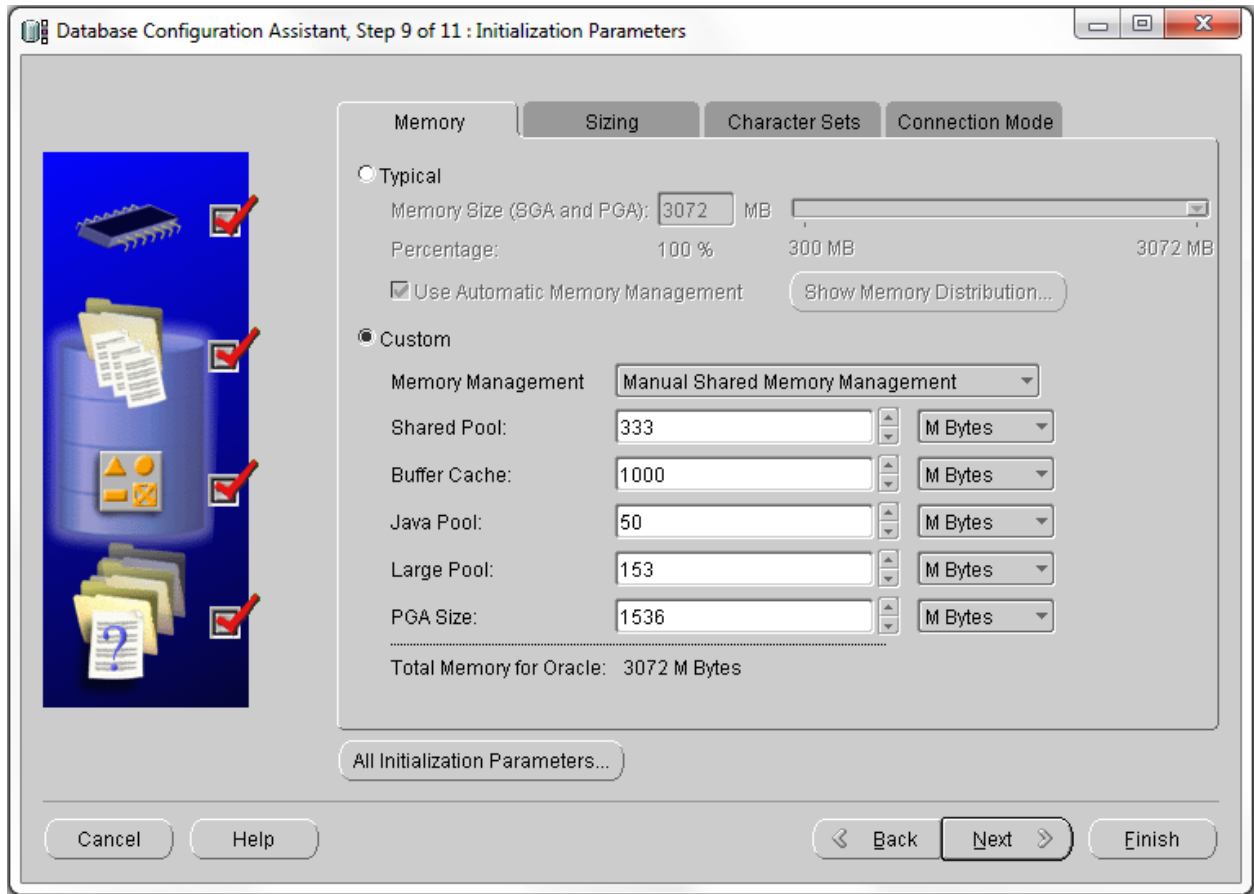
Select the standard database components you want to configure for use in your database. Oracle recommends that you always install these components in your database. Deselecting these components may cause you to no longer be able to choose some components on the previous page.

<input checked="" type="checkbox"/> Oracle JVM	SYSTEM	
<input checked="" type="checkbox"/> Oracle XML DB	SYSAUX	Customize...
<input type="checkbox"/> Oracle Multimedia	SYSAUX	
<input type="checkbox"/> Oracle Application Express	SYSAUX	

OK Help

Step 8 - Database Content and Components (Continued)

- First, you need to open "Standard Database Components..." located towards the bottom right hand corner of the window.
- Make sure ONLY the following Boxes are checked and click OK:
 - Oracle JVM
 - Oracle XML DB
- There will be 2 boxes that need to be checked for the minimal Database Components needed for the Vasont Schema:
 - Oracle Text
 - Enterprise Manager Repository
- "Custom Scripts" tab - No Scripts to Run
- Select 

Step 9a - Initialization Parameters (Memory)

Database Configuration Assistant, Step 9 of 11 : Initialization Parameters

Memory | Sizing | Character Sets | Connection Mode

☐ Typical

Memory Size (SGA and PGA): 3072 MB

Percentage: 100 % 300 MB 3072 MB

☒ Use Automatic Memory Management Show Memory Distribution...

☒ Custom

Memory Management: Manual Shared Memory Management

Shared Pool: 333 M Bytes

Buffer Cache: 1000 M Bytes

Java Pool: 50 M Bytes

Large Pool: 153 M Bytes

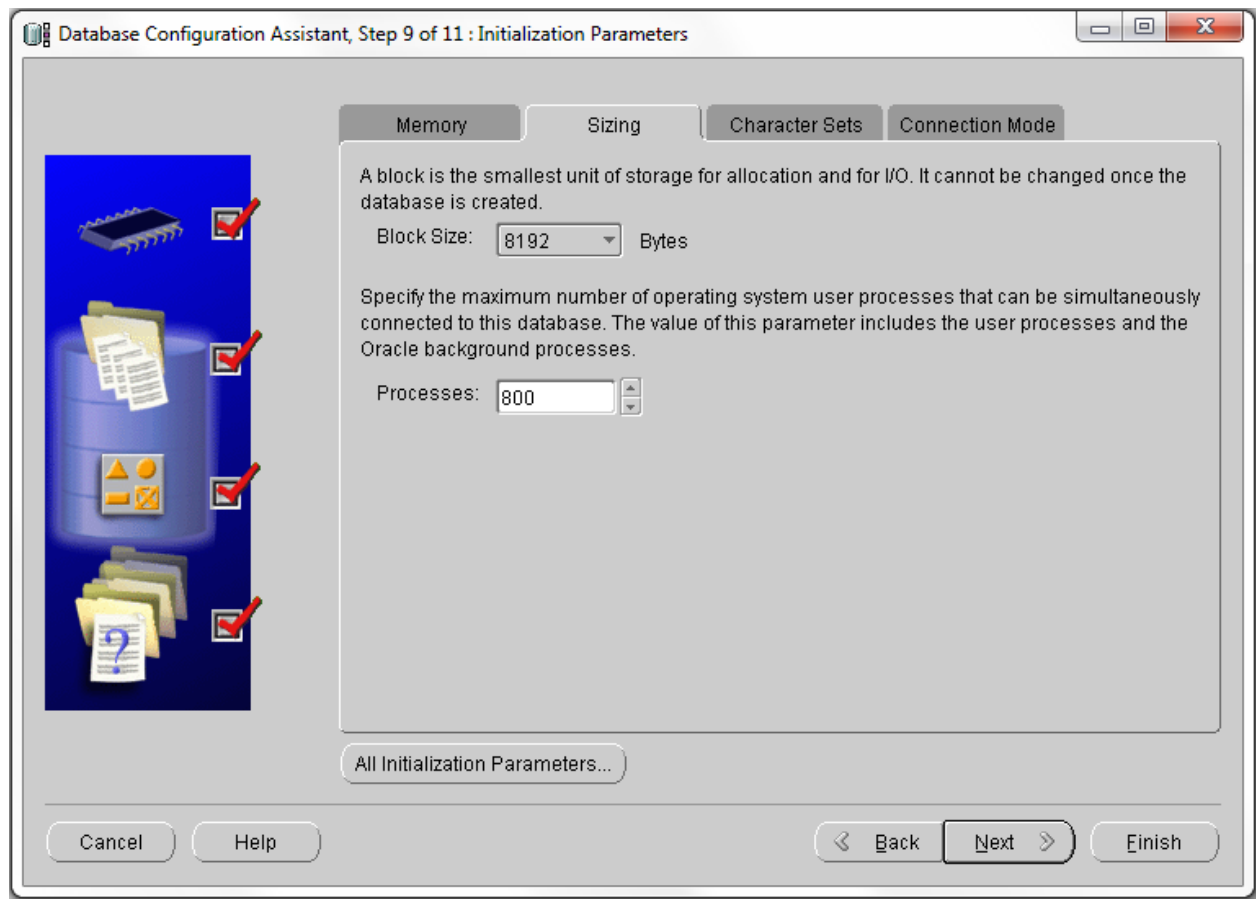
PGA Size: 1536 M Bytes

Total Memory for Oracle: 3072 M Bytes

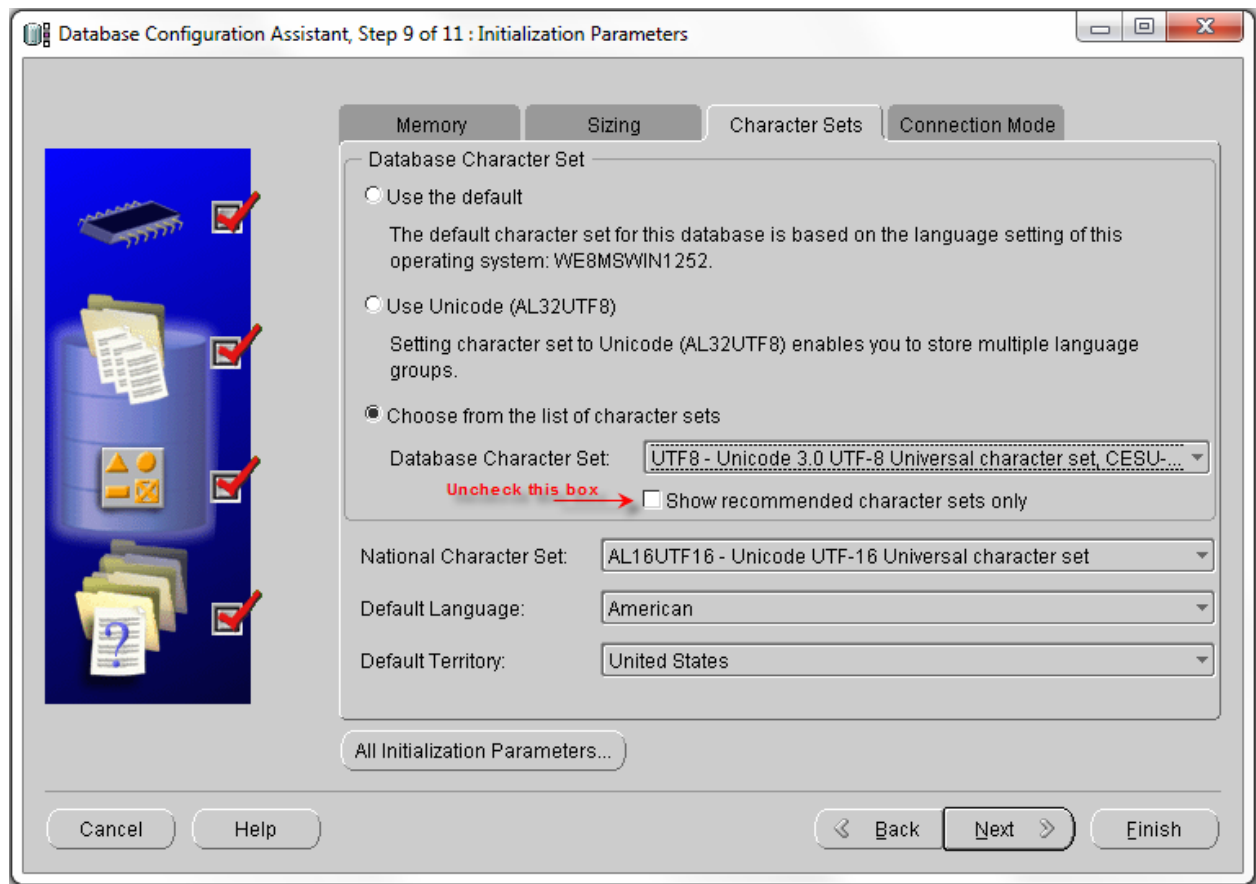
All Initialization Parameters...

Cancel Help Back Next Finish

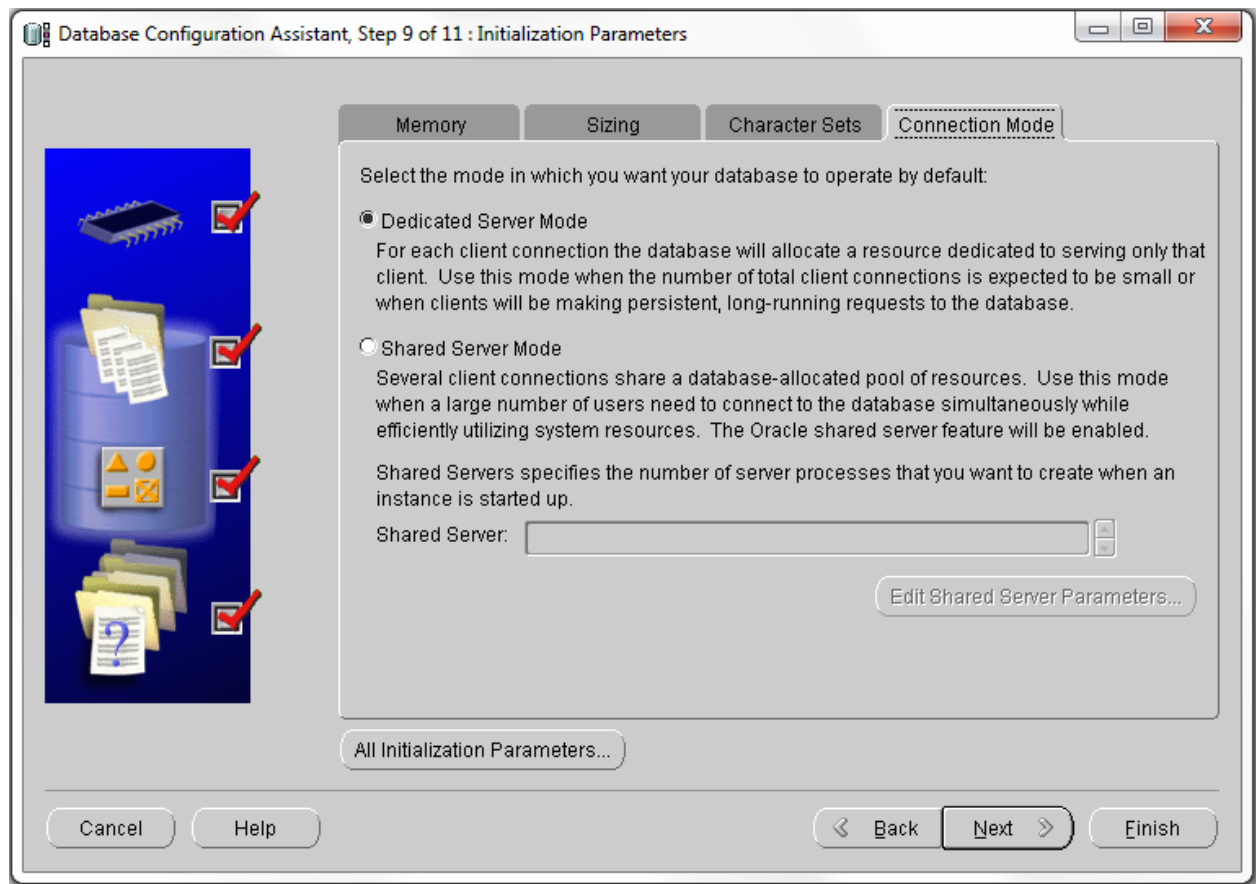
- Ensure the **"Memory"** tab is selected
- This Memory Setup assumes that the server has a total of 4GB or more of RAM on the system
- On the Memory tab, ensure that the Custom Radio Button is selected, and that Shared Memory Management is set to Manual
- Set the following values:
 - **Shared Pool** **333 M Bytes**
 - **Buffer Cache** **1000 M Bytes**
 - **Java Pool** **50 M Bytes**
 - **Large Pool** **153 M Bytes**
 - **PGA** **1536 M Bytes**

Step 9b - Initialization Parameters (Sizing)

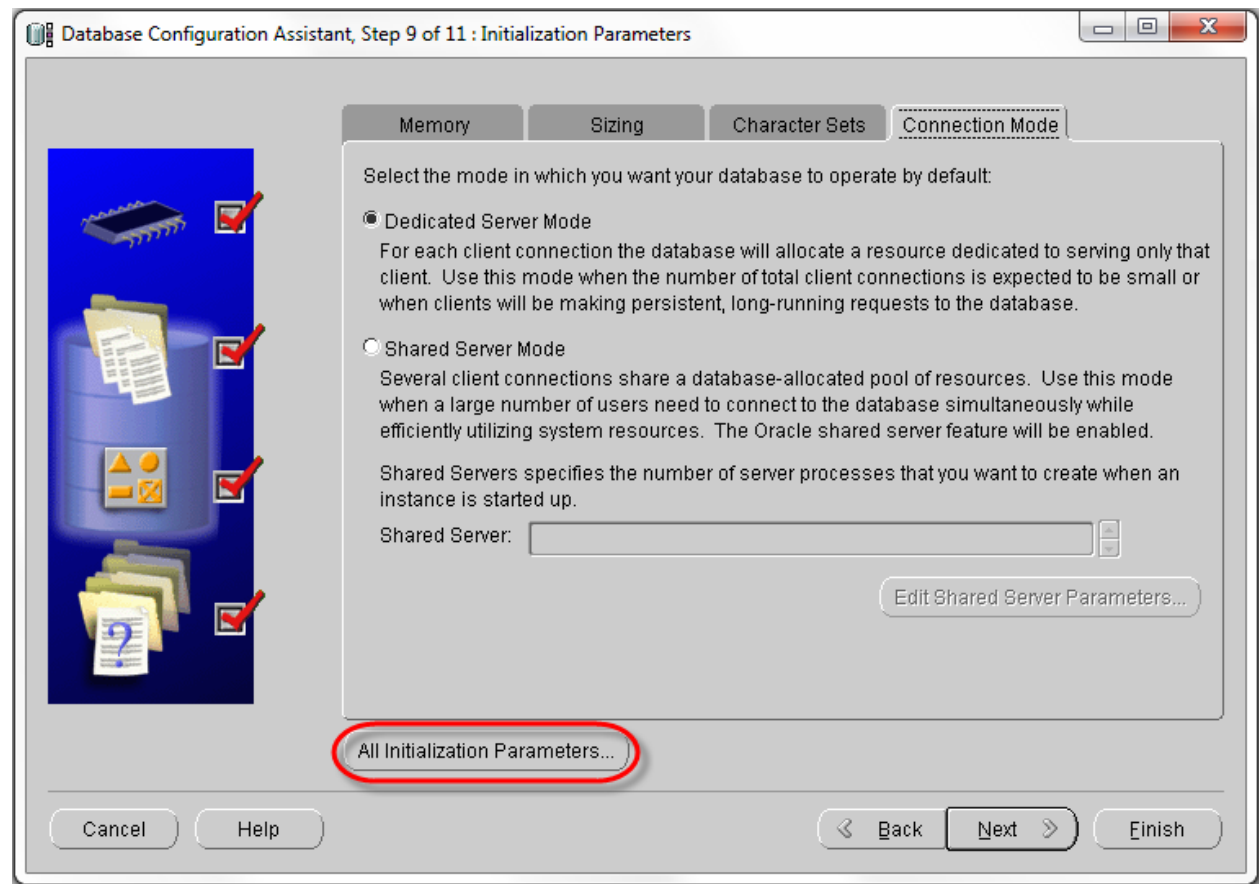
- Ensure the "Sizing" tab is selected
- Set the following values:
 - **Block Size** **8192 Bytes**
 - **Processes** **800**

Step 9c - Initialization Parameters (Character Sets)

- Ensure the **"Character Sets"** tab is selected
- Ensure that the "Choose from the list of character sets" radio button is selected
- Uncheck the "Show recommended character sets only" box
- From the Character Set dropdown menu in the Database Character Set field, select:
 - **UTF8 - Unicode 3.0 UTF-8 Universal Character Set, CESU-8 compliant**
- Ensure National Character Set is set to:
 - **AL16UTF16 – Unicode UTF-16 Universal character set**

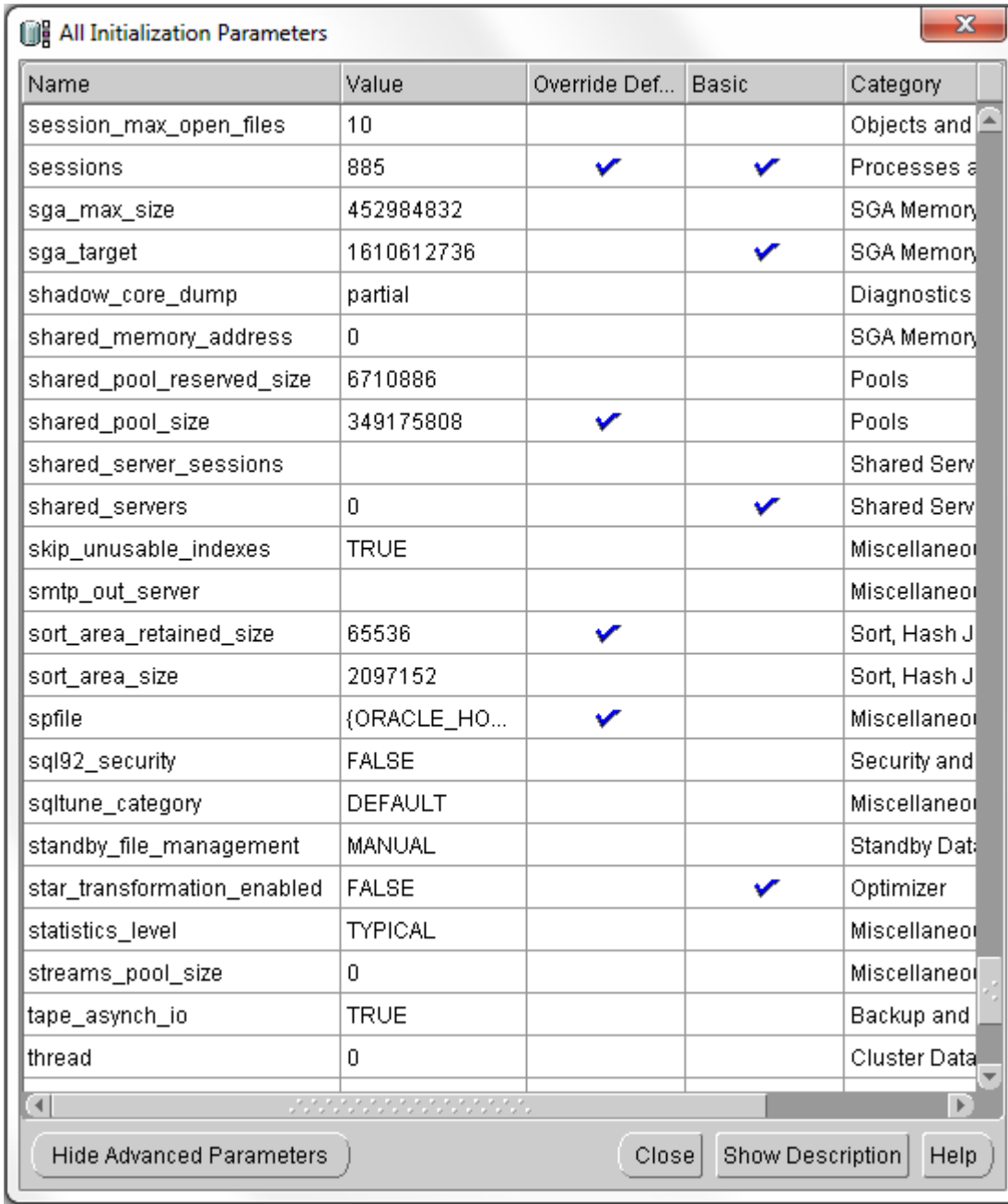
Step 9d - Initialization Parameters (Connection Mode)

- Ensure the "Connection Mode" tab is selected
- Ensure that the "Dedicated Server Mode" radio button is selected

Step 9e - Initialization Parameters (All Parameters)

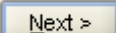
- Click on the "All Initialization Parameters" button to access the full Oracle table of all initialization parameters

Step 9f - Initialization Parameters (Advanced Parameters)



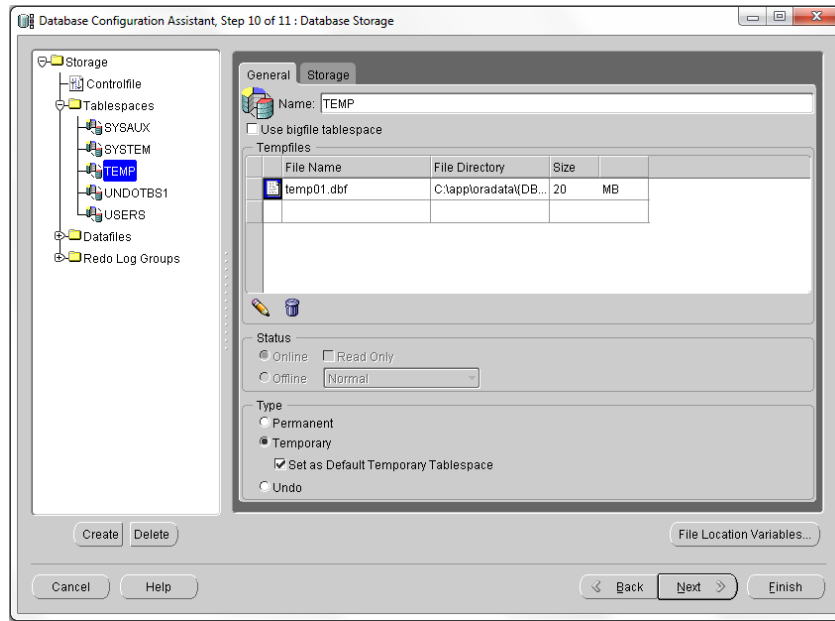
Name	Value	Override Def...	Basic	Category
session_max_open_files	10			Objects and
sessions	885	✓	✓	Processes a
sga_max_size	452984832			SGA Memory
sga_target	1610612736		✓	SGA Memory
shadow_core_dump	partial			Diagnostics
shared_memory_address	0			SGA Memory
shared_pool_reserved_size	6710886			Pools
shared_pool_size	349175808	✓		Pools
shared_server_sessions				Shared Serv
shared_servers	0		✓	Shared Serv
skip_unusable_indexes	TRUE			Miscellaneous
smtp_out_server				Miscellaneous
sort_area_retained_size	65536	✓		Sort, Hash J
sort_area_size	2097152			Sort, Hash J
spfile	{ORACLE_HO...	✓		Miscellaneous
sql92_security	FALSE			Security and
sqltune_category	DEFAULT			Miscellaneous
standby_file_management	MANUAL			Standby Dat
star_transformation_enabled	FALSE		✓	Optimizer
statistics_level	TYPICAL			Miscellaneous
streams_pool_size	0			Miscellaneous
tape_asynch_io	TRUE			Backup and
thread	0			Cluster Data

Hide Advanced Parameters Close Show Description Help

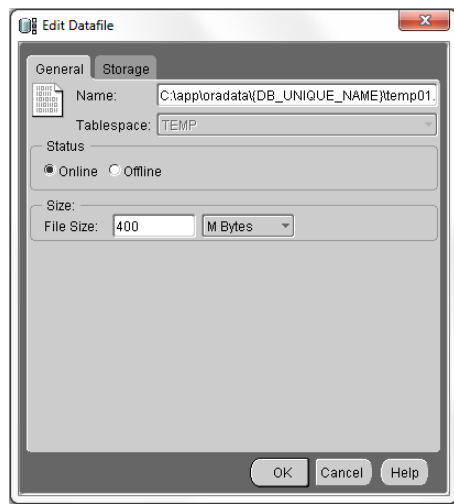
- In the All Initialization Parameters window, click on the Show Advanced Parameters button, and locate the following parameters:
sort_area_retained_size 65536
sort_area_size 2097152
- Click on Close to close the All Initialization Parameters window
- Back at the main Step 9 of 11: Initialization Parameters window
- Select 

Step 10a - Database Storage (TEMP Tablespace)

- Expand the Tablespaces branch in the Storage Tree View
- Select the TEMP Tablespace in the Storage Tree View



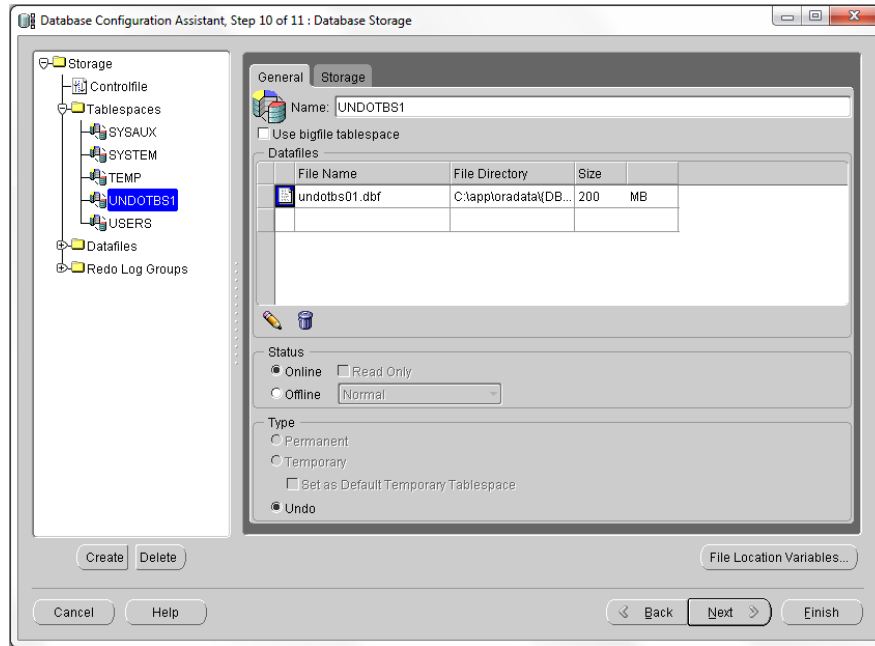
- Activate the General tab for the TEMP Tablespace
- In the File Name column, double-click on the Tablespace filename to open the Edit Datafile window



- For File Size, specify **400 M Bytes**
- Click on OK to close the Edit Datafile window

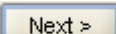
Step 10b - Database Storage (UNDOTBS1 Tablespace)

- Select the UNDOTBS1 Tablespace in the Storage Tree View

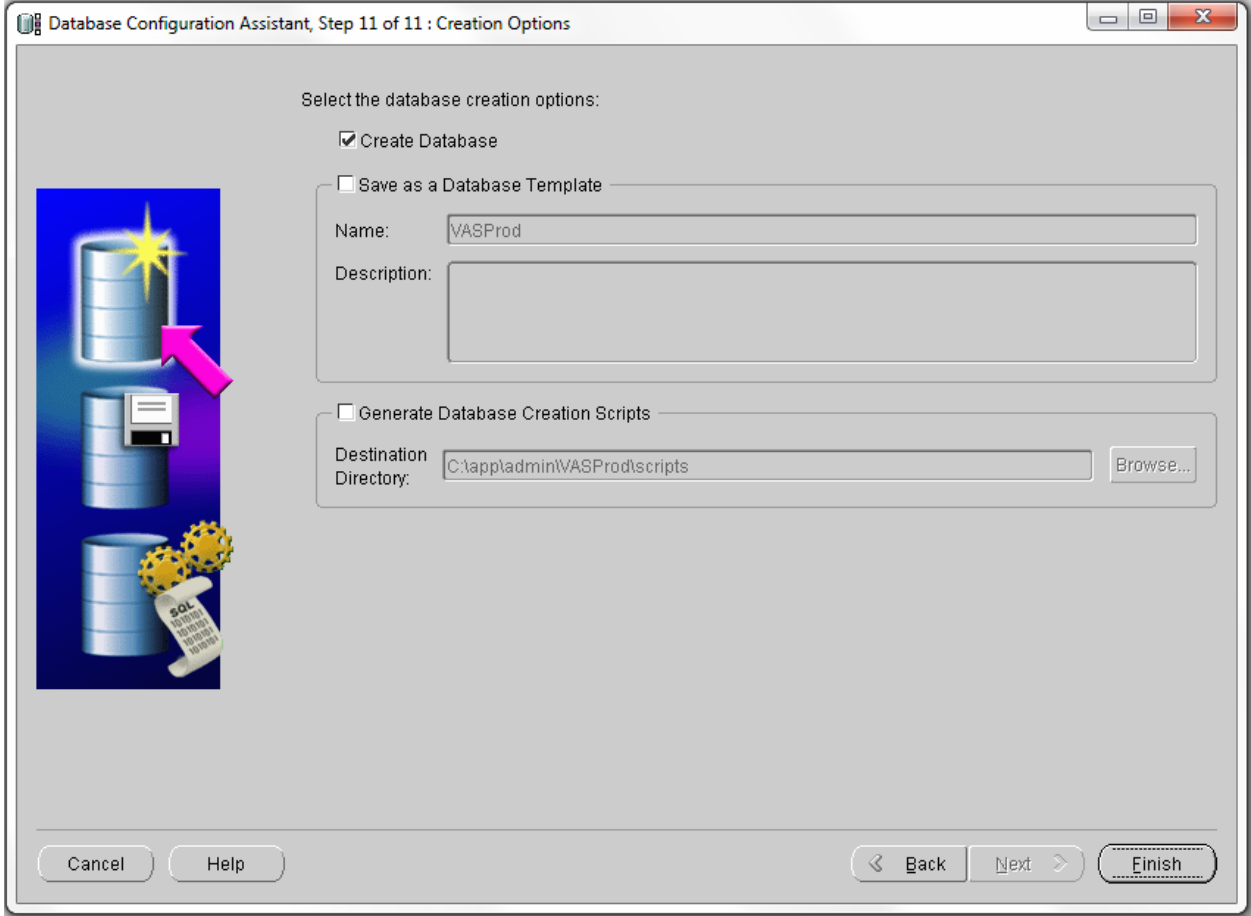


- Activate the General tab for the UNDOTBS1 Tablespace
- In the File Name column, double-click on the Tablespace filename to open the Edit Datafile window



- For File Size, specify **400 M Bytes**
- Click on OK to close the Edit Datafile window
- Back at the main Step 10 of 11: Database Storage window
- Select 

Step 11 - Database Creation Options



Database Configuration Assistant, Step 11 of 11 : Creation Options

Select the database creation options:

☒ Create Database

☐ Save as a Database Template

Name:

Description:

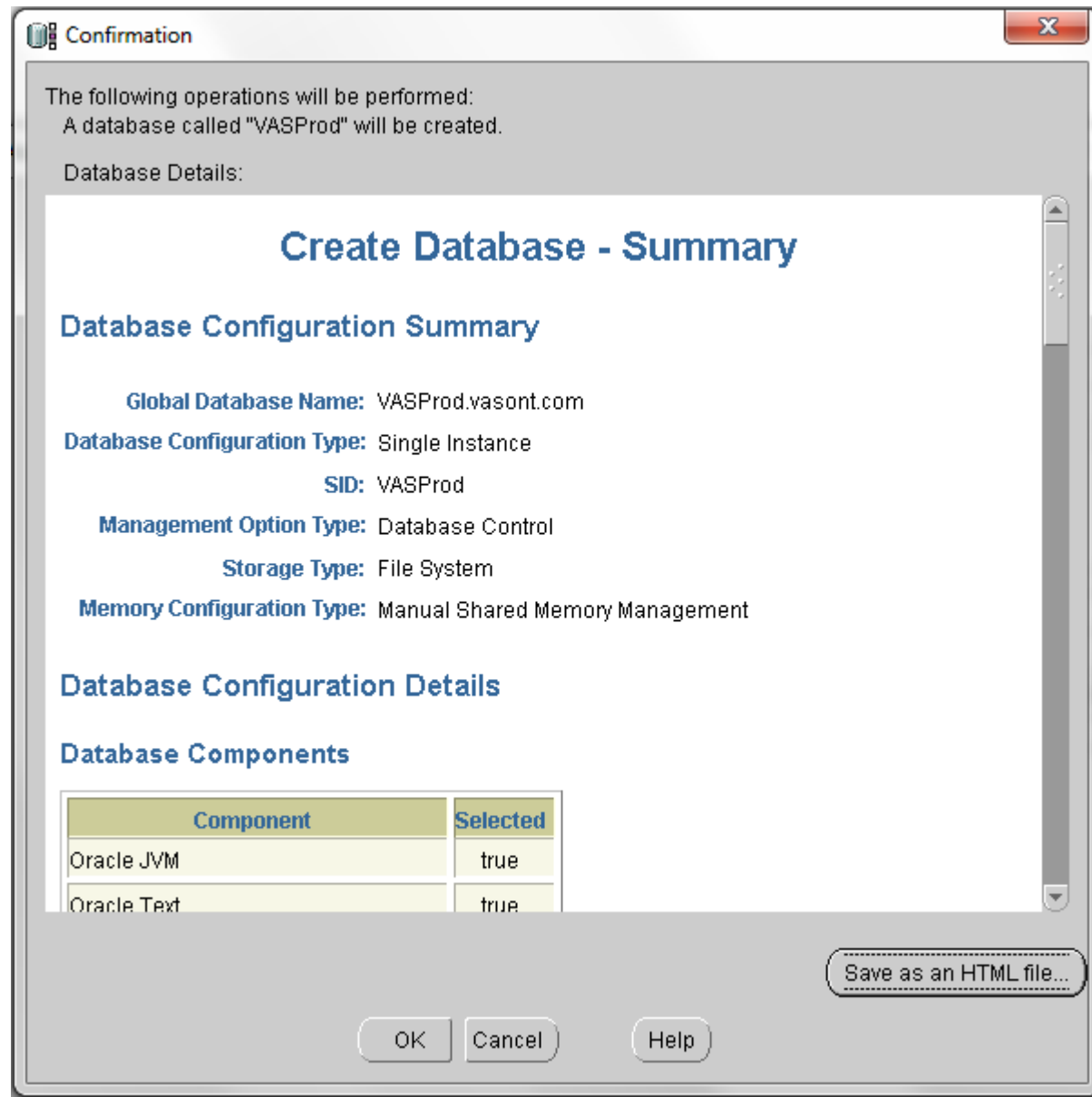
☐ Generate Database Creation Scripts

Destination Directory:

- Ensure the Create Database checkbox is selected
- Select 

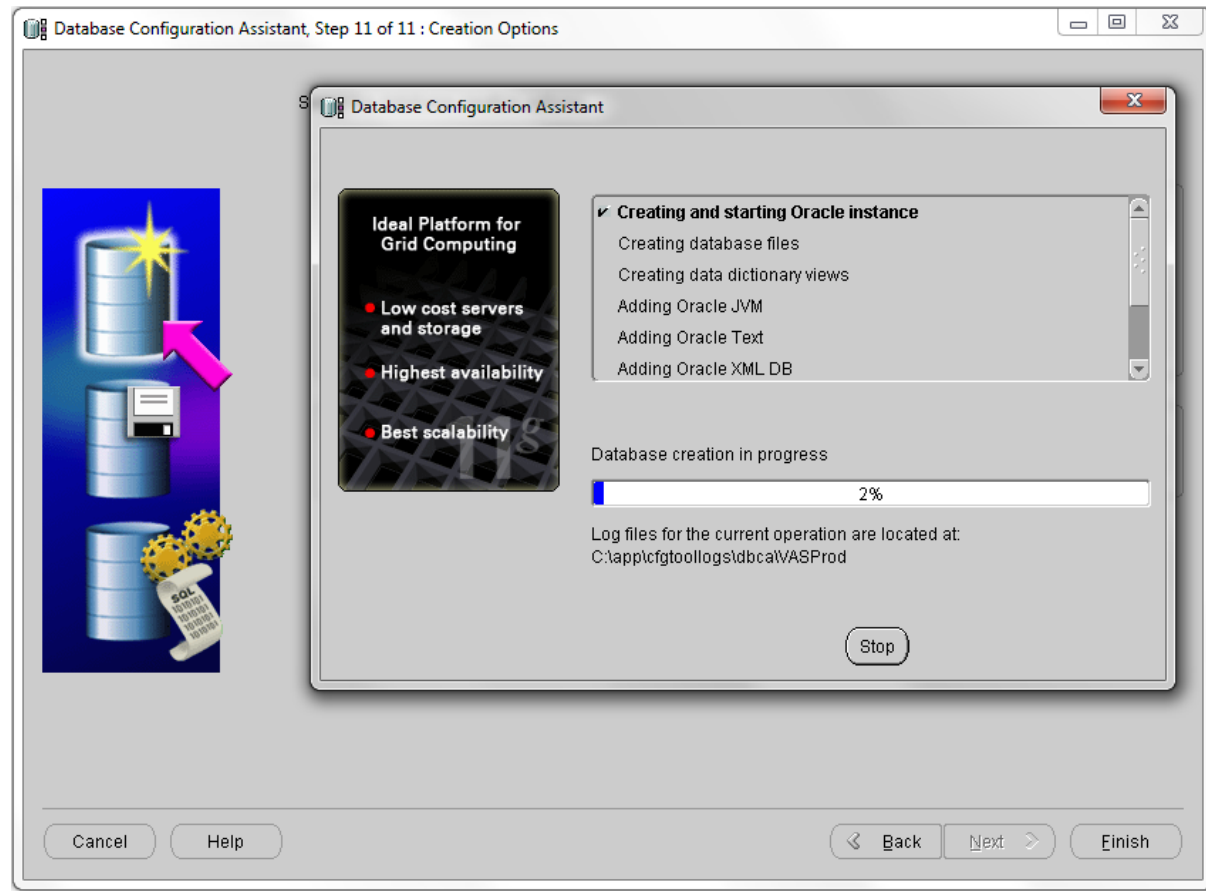
Step 11 - Create Database - Summary

- A Summary window, showing the Database Configuration, will appear

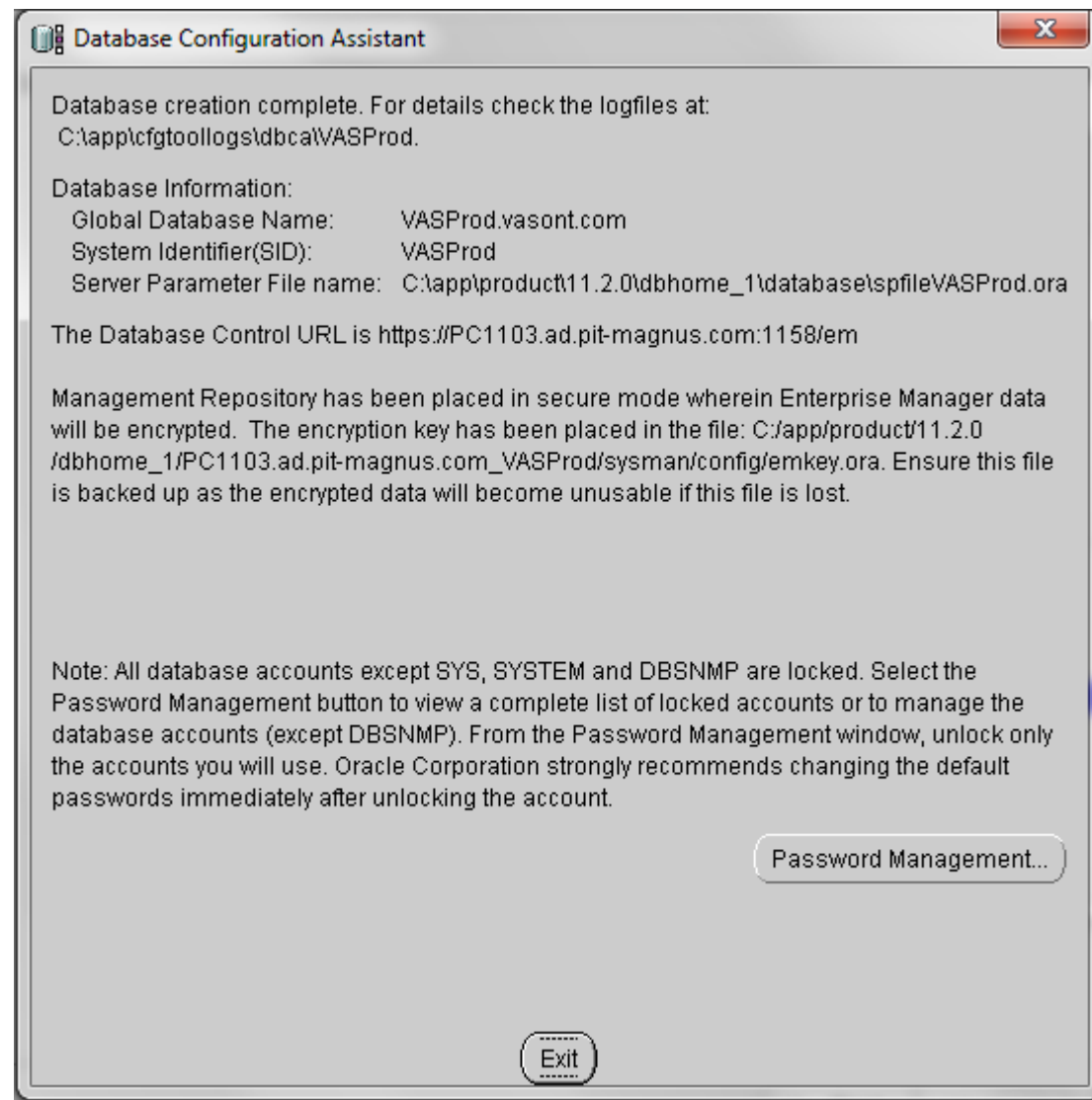


- Click on OK to continue

A progress bar will be shown as the Oracle Database is built – This process may take anywhere from 30 minutes to 2 hours, depending on the speed of the Server hardware and the Oracle Configuration selected.



After the Database Creation process has completed, the End of Installation window will appear.



- Click on Exit to End the Database Creation Utility

Oracle Database Console Enterprise Manager Setup (Unsecured)

By default, the Oracle Enterprise Manager (OEM) is created in HTTPS secured mode. If your setup requires a non-secured OEM, the following steps will configure OEM as an unsecured HTTP service:

- Stop the OracleDBConsole Service
- Open up a command prompt
- Type the following commands:
 - > SET ORACLE_UNQNAME=<Instance Name>
 - > emctl unsecure dbconsole

```
C:\>set ORACLE_UNQNAME=VASPROD

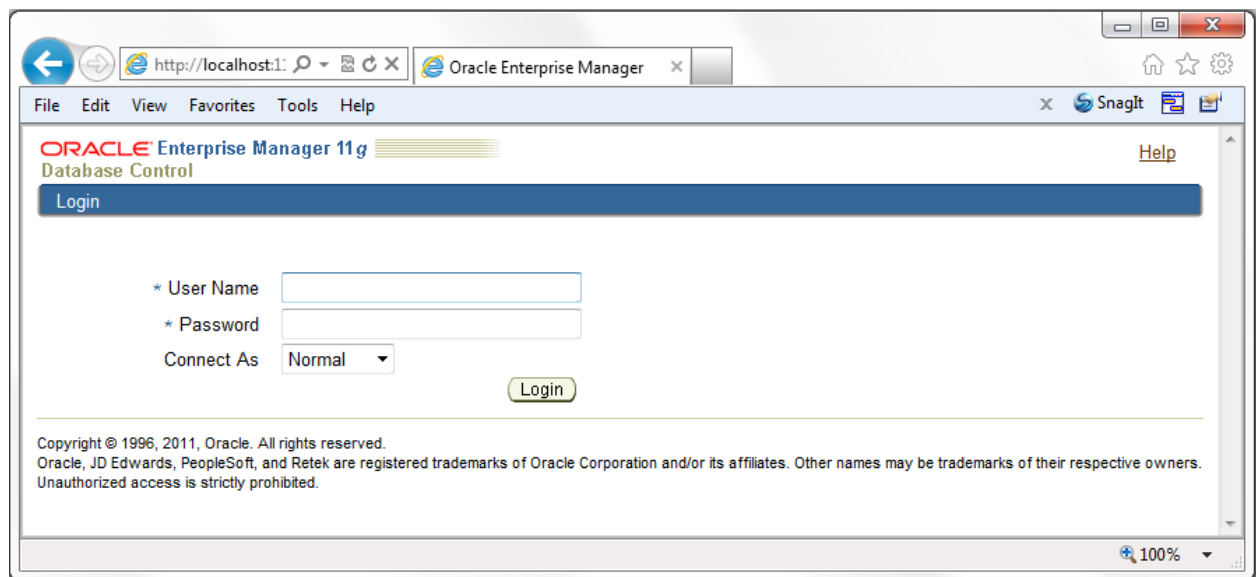
C:\>emctl unsecure dbconsole
Oracle Enterprise Manager 11g Database Control Release 11.2.0.3.0
Copyright (c) 1996, 2011 Oracle Corporation. All rights reserved.
https://PC1103.ad.pit-magnus.com:1158/em/console/aboutApplication
Configuring DBConsole for HTTP... Done.
DBCONSOLE already stopped... Done.
Agent is already stopped... Done.
Unsecuring dbconsole... Started.
DBConsole is now unsecured... Done.
Unsecuring dbconsole... Sucessful.

C:\>_
```

- Start the OracleDBConsole Service

Once your OEM has been setup, you can navigate to it by opening up your favorite browser to the following address:

<http://localhost:1158/em/console/logon/logon>



Database Configuration - Important Database Settings

Oracle 11 Case Sensitive Passwords

At this time, the Vasont application does not support the use of case sensitive passwords. The following command must be ran under the SYS account to disable the case sensitive passwords that was introduced in Oracle 11.

```
SQL> SHOW PARAMETER SEC_CASE_SENSITIVE_LOGON
```

NAME	TYPE	VALUE
sec_case_sensitive_logon	boolean	TRUE

```
SQL>
```



```
SQL> ALTER SYSTEM SET SEC_CASE_SENSITIVE_LOGON = FALSE;
```

System altered.

```
SQL>
```

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