



HOME

User Manual

DELMIA Process Engineer<sup>®</sup>

## ORACLE 11g Database Upgrade



# Foreword

This manual provides an introduction to the basic operations and functions of the ORACLE Database Upgrade to 11g.

Detailed installation of Oracle 11g is not covered in this document, for detailed Installation of Oracle 11g Installation follow [Oracle 11g Installation Manual](#). This document is mainly for Oracle 11g Upgrade.

While developing these functions we have made every effort to create a clearly organized, easy-to-understand program structure.

A user-friendly interface as well as a clear menu guide will enable you to quickly learn how to operate the program and to get familiar with its functions so that you can carry out your planning tasks in a quick and reliable way.

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# 1. Introduction

This manual explains how to use the Process Engineer ORACLE 11g upgradation for your planning purposes.

It shows how to upgrade the ORACLE database so you can use it when working with DELMIA software.

This manual has been written mainly for system administrators and employees with administrator rights. The functions described in the following must be executed before the DELMIA Process Engineers or the ENOVIA Manufacturing Hubs are installed.

The information in this manual is necessary in order to successfully run the *ENOVIA Manufacturing Hub* on the ORACLE database. There are, however, further notes on the installation, performance, and other topics in the [Administration Manual](#).

## 1.1 How to Use this Manual

This manual enables you to get familiar with the operation and functions of the Process Engineer. This manual briefly describes:

- ORACLE 11g Database Upgrade



### Note

*When handling the ORACLE 11g Upgrade functions, please also refer to the general introduction to Process Engineer in the General Introduction Manual.*



Click [General Introduction](#) to access the manual.

## 1.2 Documentation Conventions and Symbols

The symbols used in this manual are intended to provide you with keys to the contents in an immediately understandable manner.



This symbol is used to introduce key concepts that are covered in the sections immediately following this symbol. As a result, this symbol most frequently appears at the beginning of chapters or sections.



### Note

*This symbol is used to mark notes, which provide you with additional information you need to have for further work. You will either find the Note sign at the beginning of a chapter or in a particular text passage in the chapter. Texts bearing this sign are additionally marked with **Note**. The text is always in italics.*



## Caution

*This symbol indicates that the text that follows describes particular circumstances that you must avoid to avoid potential errors with the operation of the program or harm to data. You will either find the Caution sign at the beginning of a chapter or near a particular text passage in the chapter. Texts that are introduced by this sign are additionally marked with **Caution**. The text is always in italics.*

## Example

This symbol marks examples which serve to illustrate a certain situation.

1)

This symbol marks the individual operational steps involved in a particular operating instruction. Operating instructions describe operational steps, for example, how to open a menu or execute a function.

■

This symbol marks listed subjects. The symbol for listed subjects can be either used to structure a continuous text or to list main subject keywords.

➤

This symbol marks list inside a bulleted or numbered list.



This symbol marks cross reference information that is available in another manual.

## 1.3 New Functions in ORACLE Database Upgrade

No new functionality has been added for this release.

## 2. Installation Requirements

Make sure that the following requirements have been met before starting upgrading of the Oracle database.

### Installations Requirements

- DVD with ORACLE 11g Database Release version (11.1.0.6)
- Standard Edition or ORACLE 11g Database Enterprise Edition
- Minimum DPE requirement for Oracle 11g is R20. Since Oracle 11g is supported only from R20

### Hardware Requirements

- At least 2400 MHz CPU, at least 2GByte main memory.
- 10GB of free space on the hard disk.

### Software Requirement

- Windows 2003 server as an OS.

Please go through the below link for OS certification details for 11g.

[https://support.oracle.com/CSP/ui/flash.html#tab=Certification  
\(page=Certification&id=g43ybg1k\(\)\),\(page=CertificationSearch&id=g43ycuk3\(\)  
\)](https://support.oracle.com/CSP/ui/flash.html#tab=Certification(page=Certification&id=g43ybg1k()),(page=CertificationSearch&id=g43ycuk3()))

- Please insert the **DVD** with ORACLE 11g Database Standard Edition in the DVD drive of the machine on which you have to install the database.
- Start the program **setup.exe** in the main directory of the DVD and follow the installation instructions on the screen.

### 3. Upgrading an ORACLE 11g Database

A migration is a very complex and often also a very time-consuming process. Before a migration, it is necessary to read the current Readme files provided by Oracle's support. Please also consider relevant literature by Oracle.

*We recommend migration with the help of the conventional Export/Import function. Even though more storage space might be needed and the migration might take a bit longer, it results in the following benefits – Reorganization of objects/If the exported Dump is not deleted explicitly, you can return the old version.*

**Compatibility Matrix:** The following table shows minimum version of the database that can be directly upgraded to Oracle 11g Release 1.

**Table 1: Minimum Version of the Database that can be Directly Upgraded to Oracle 11g Release 1**

Source Database	Target Database
9.2.0.4.0 (or higher)	11.1.x
10.1.0.2.0 (or higher)	11.1.x
10.2.0.1.0 (or higher)	11.1.x

The following table shows database version will require an indirect upgrade path.

**Table 2: Database Version that require an Indirect Upgrade Path**

Source Database	Target Database
7.3.3.0.0 (or lower) --> 7.3.4.x --> 9.2.0.8 -->	11.1.x
8.0.5.0.0 (or lower) --> 8.0.6.x --> 9.2.0.8 -->	11.1.x
8.1.7.0.0 (or lower) --> 8.1.7.4 --> 9.2.0.8 -->	11.1.x
9.0.1.3.0 (or lower) --> 9.0.1.4 --> 9.2.0.8 -->	11.1.x



#### Note

*The following are the supported versions, which meet the minimum requirements and from which a change to ORACLE 11g can be performed directly - 9.2.0.4 / 9.2.0.5 / 9.2.0.6 / 9.2.0.7 / 9.2.0.8 / 10.2.0.4*

*You should make a backup of your database before migrating ORACLE. This task should be undertaken by an ORACLE Administrator. Please refer to Export and Import in [Oracle 11g Installation Manual](#).*

## 4. Using the DPE Database Assistant

Apart from the option to create users manually and to execute the database imports with command lines, a GUI-based tool can also be used to execute these tasks, as seen in the example of the demonstration database import.

The database assistant menu point can be called up in the start dialog of the DPE installation CD.

In a dialog it is possible to select whether an import or export, a database upgrade, a collection of support-relevant information, or a switch-over of the database server is executed.

An example for the import of dumps can be found in the chapter Process Engineer Database in [Oracle 11g Installation Manual](#)

### Tablespaces

Please be aware that during the migration from an earlier release, the tablespace usage of the undo tablespace, index tablespace, and default tablespace can be much higher than it would be during the normal execution of applications. It is estimated that at least the duplicate amount of tablespace is needed.

The size of the undo tablespace should be at least the higher value of 4GB and half of the size of the **ERGO\_USR** tablespace.

Please follow the below steps for migration of database to 11g

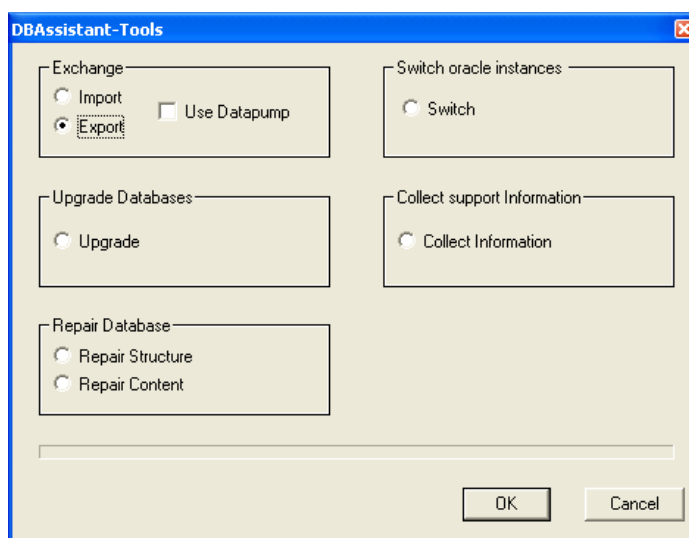
- 1) Login to a database 9i or 10g(which needs to be upgrade) to take a export dump of user E5\_DATABASE .Please Make sure that DPE or IPDserver is closed before taking a export dump .



### Note

*Export can be done by DBAssistant-Tools or Manual oracle export .*

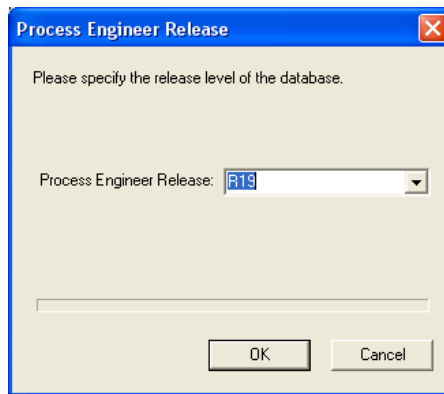
- 2) Select **Export** radio button in DBAssistant Tools.



**Figure 1: DBAssistant - Tools Export Option**

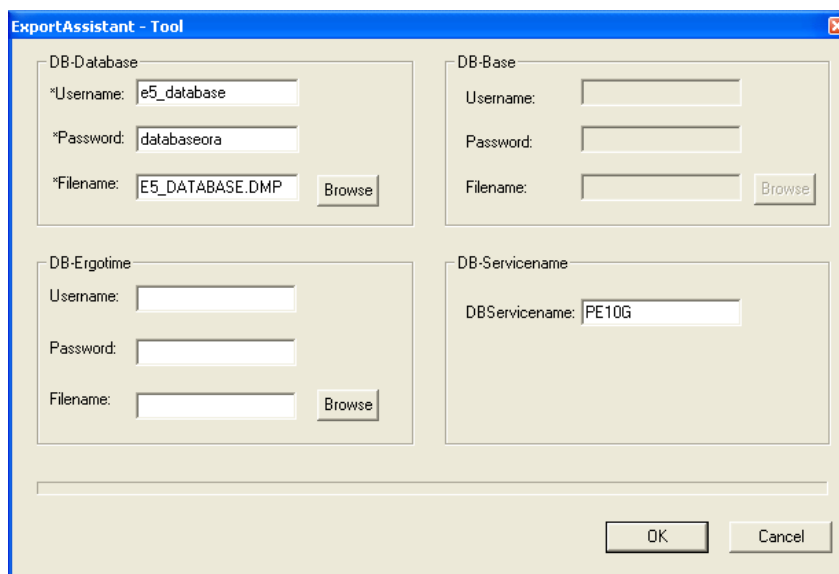
- 3) Select the Release Version from drop-down menu in Procees Engineer Release.





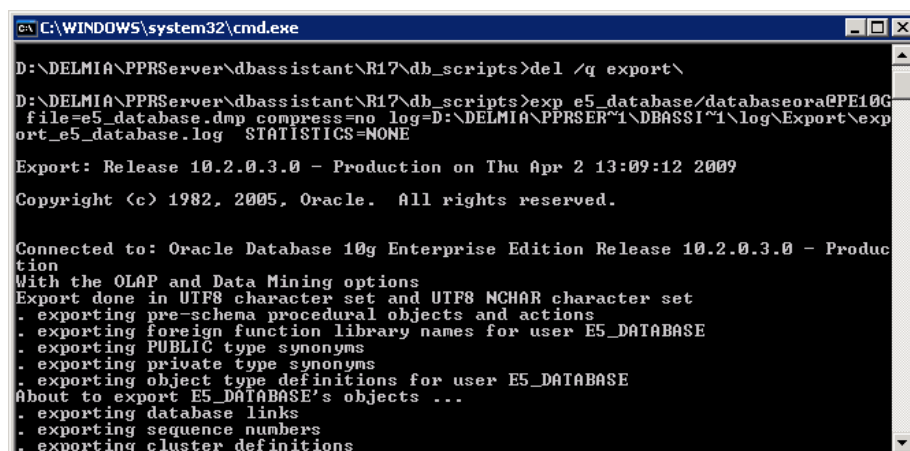
**Figure 2: Process Engineer Release**

- 4) Enter username, password, and service name to import in Export Assistant.



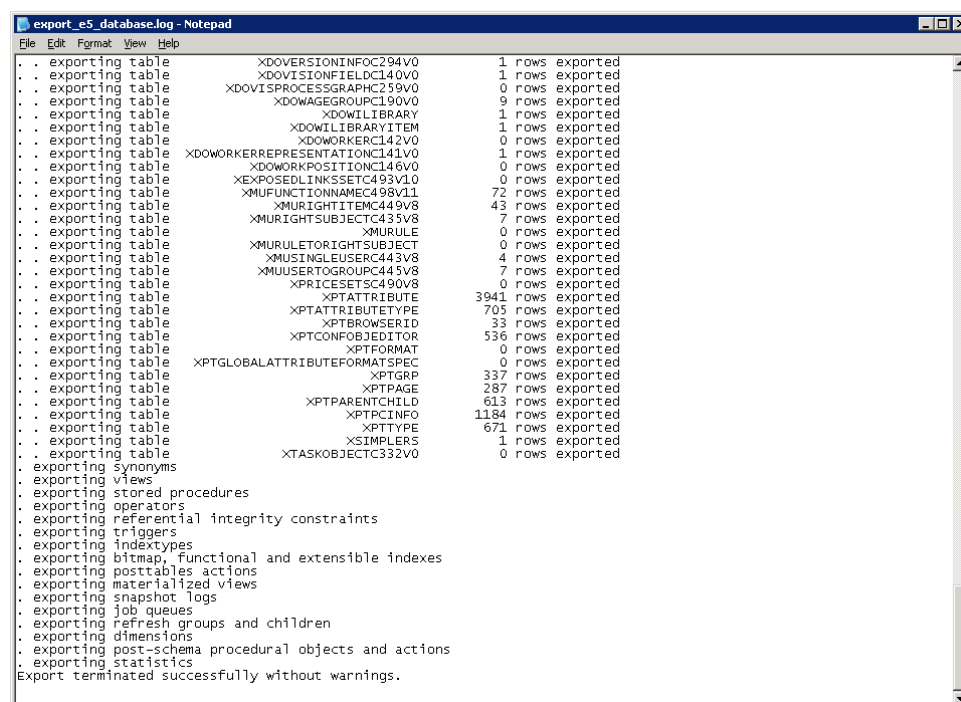
**Figure 3: Export Assistant - Tools**

- 5) Click **OK** in in Export Assistant.
- 6) You can see that export is in progress.



**Figure 4: Export in Progress**

- 7) Please make sure the export is done successfully. This will generate the e5\_database.dmp dump in specified path.



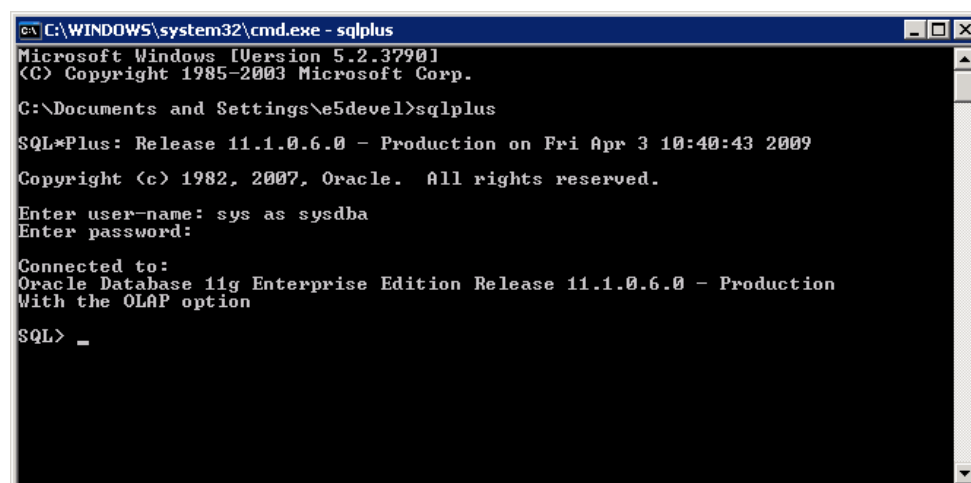
```

export_e5_database.log - Notepad
File Edit Format View Help
. . exporting table XDOVERSIONINFOC294V0 1 rows exported
. . exporting table XDOVISIIONFIELD140V0 1 rows exported
. . exporting table XDOVISIOPROCESSGRAPHC259V0 0 rows exported
. . exporting table XDOVAGEGROUPC190V0 9 rows exported
. . exporting table XDOVILIBRARY 1 rows exported
. . exporting table XDOVILIBRARYITEM 1 rows exported
. . exporting table XDOVORKER142V0 0 rows exported
. . exporting table XDOVORKERREPRESENTATIONC141V0 1 rows exported
. . exporting table XDOVORKPOSITIONC146V0 0 rows exported
. . exporting table XEXPOSEDLINKSSETC493V10 0 rows exported
. . exporting table XMUFUNCTIONNAMEC498V11 72 rows exported
. . exporting table XMURIGHTITEMC449V8 43 rows exported
. . exporting table XMURIGHTSUBJECTC435V8 7 rows exported
. . exporting table XMURULE 0 rows exported
. . exporting table XMURULETORIGHTSUBJECT 0 rows exported
. . exporting table XMUSINGLEUSERC443V8 4 rows exported
. . exporting table XMUSERTOGROUPC443V8 7 rows exported
. . exporting table XPRICESETC490V8 0 rows exported
. . exporting table XPTATTRIBUTE 3941 rows exported
. . exporting table XPTATTRIBUTETYPE 705 rows exported
. . exporting table XPTBROWSERID 33 rows exported
. . exporting table XPTCONFBJEDITOR 536 rows exported
. . exporting table XPTFORMAT 0 rows exported
. . exporting table XPTGLOBALATTRIBUTEFORMATSPEC 0 rows exported
. . exporting table XPTGRP 337 rows exported
. . exporting table XPTPAGE 287 rows exported
. . exporting table XPTPARENTCHILD 613 rows exported
. . exporting table XPTPCINFO 1184 rows exported
. . exporting table XPTTYPE 671 rows exported
. . exporting table XSIMPLERS 1 rows exported
. . exporting table XTASKOBJECTC332V0 0 rows exported
. exporting synonyms
. exporting views
. exporting stored procedures
. exporting operators
. exporting referential integrity constraints
. exporting triggers
. exporting indextypes
. exporting bitmap, functional and extensible indexes
. exporting posttables actions
. exporting materialized views
. exporting snapshot logs
. exporting job queues
. exporting refresh groups and children
. exporting dimensions
. exporting post-schema procedural objects and actions
. exporting statistics
Export terminated successfully without warnings.

```

Figure 5: Export Successfull

- 8) After export is done make sure that export dump file is stored in specified path. Now install 11g Release 11.1.0.6 (apply patch if required) in different path or in new machine. After 11g is installed successfully make sure that it connects to database using “sqlplus”.



```

C:\WINDOWS\system32\cmd.exe - sqlplus
Microsoft Windows [Version 5.2.3790.1]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\se5devel>sqlplus

SQL*Plus: Release 11.1.0.6.0 - Production on Fri Apr 3 10:40:43 2009

Copyright (c) 1982, 2007, Oracle. All rights reserved.

Enter user-name: sys as sysdba
Enter password:

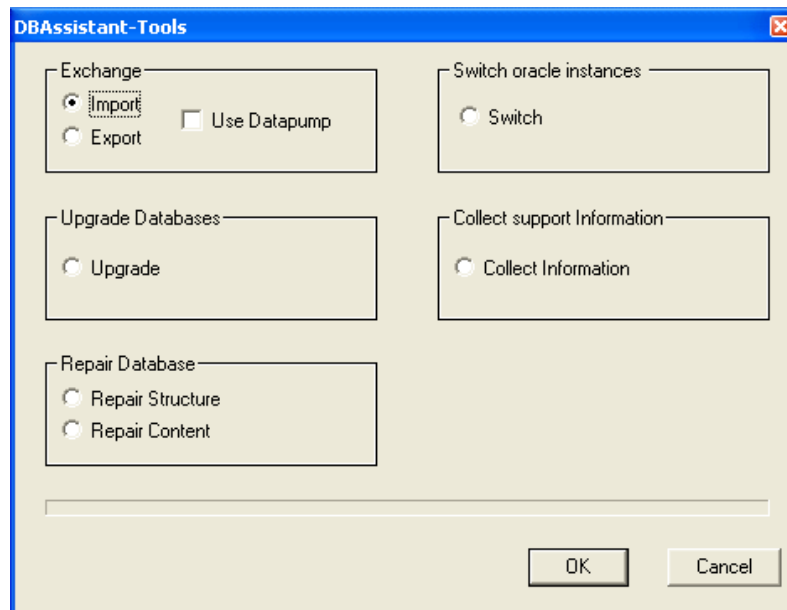
Connected to:
Oracle Database 11g Enterprise Edition Release 11.1.0.6.0 - Production
With the OLAP option

SQL> _

```

Figure 6: Connecting to database using “sqlplus

- 9) After confirming 11g is working fine, start importing the dump E5\_DATABASE.DMP (10g or 9i dump which was exported earlier) to 11g database.
- 10) Select **Import** option in DB Assistant Tools.



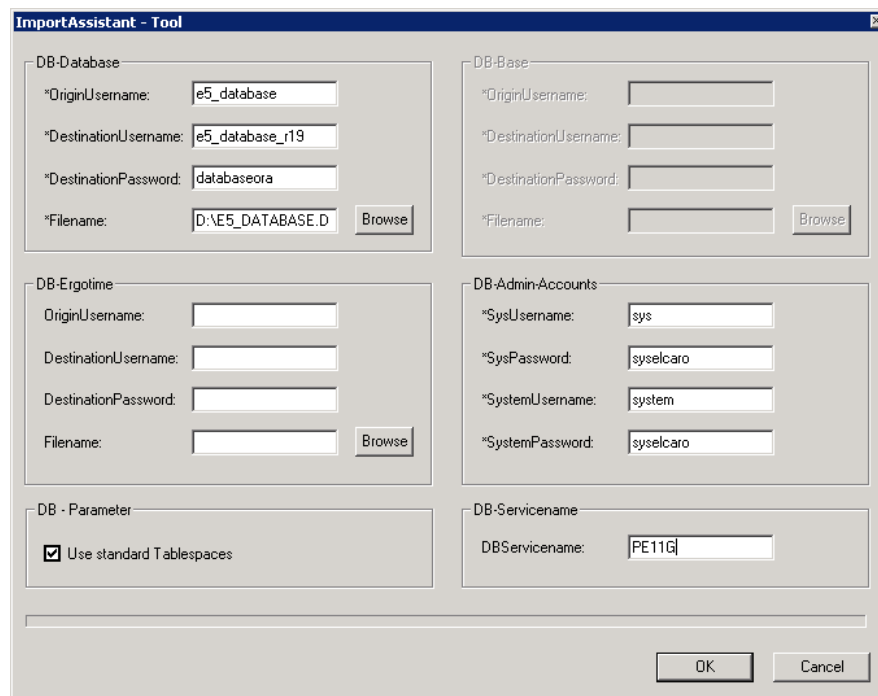
**Figure 7: DB Assistant – Tools Import Option**



### Note

*Do not use datapump option.*

- 11) Make sure that DBService name is PE11G (11g service name).  
Enter username and password to import. Meanwhile make sure that tnsnames.ora file contain an 11g database entry.



**Figure 8: Import Assistant - Tools**

- 12) Please make sure that import is started successfully.

```

tnsnames.ora - Notepad
File Edit Format View Help
# tnsnames.ora Network Configuration File: D:\oracle\product\11.1.0\db_1\network\admin\tnsnames.ora
# Generated by Oracle configuration tools.

PE10G =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP)(HOST = bristolde1)(PORT = 1521))
    )
    (CONNECT_DATA =
      (SERVICE_NAME = PE10g)
    )
  )
PE11G =
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = TCP)(HOST = wkta101de1.ds)(PORT = 1521))
    (CONNECT_DATA =
      (SERVER = DEDICATED)
      (SERVICE_NAME = PE11g)
    )
  )

```

Figure 9: Import in Progress 1

```

C:\WINDOWS\system32\cmd.exe
With the OLAP option
Export file created by EXPORT:U10.02.01 via conventional path
Warning: the objects were exported by E5_DATABASE, not by you
import done in UTF8 character set and UTF8 NCHAR character set
import server uses AL32UTF8 character set (possible charset conversion)
export server uses AL16UTF16 NCHAR character set (possible ncharset conversion)
. importing E5_DATABASE's objects into E5_DATABASE_R19
. importing table "A" 76 rows imported
. importing table "ACTIVECLIENTS" 4 rows imported
. importing table "BLOB_TAB" 2 rows imported
. importing table "DELMIA_VIEWS" 219 rows imported
. importing table "EMP" 0 rows imported
. importing table "EMP1" 38 rows imported
. importing table "LOCKS" 0 rows imported
. importing table "M_ATTRIBUTEVALUESC106P000" 22 rows imported
. importing table "M_LISTREGULARDAYSC648" 0 rows imported
. importing table "M_LISTSPECIALLDAYSC648" 0 rows imported
. importing table "M_MACROPARAMETERSETC230P100" 0 rows imported
. importing table "M_MASKCOLUMNMC250P100" 0 rows imported
. importing table "M_MASKROWMC250P000" 0 rows imported
. importing table "M_ODATTRIBUTESETC533" 0 rows imported
. importing table "M_ODATTRIBUTETYPESC547" 0 rows imported

```

Figure 10: Import in Progress 2

13) Please make sure the import is completed successfully without warnings.

```

C:\WINDOWS\system32\cmd.exe
. importing table "XMUUSERTOGRUPOC44508" 12 rows imported
. importing table "XPRICESETSC49008" 0 rows imported
. importing table "XPTATTRIBUTE" 5060 rows imported
. importing table "XPTATTRIBUTETYPE" 987 rows imported
. importing table "XPTBROWSERID" 37 rows imported
. importing table "XPTBROWSERID1" 38 rows imported
. importing table "XPTCONFOBJEDITOR" 549 rows imported
. importing table "XPTFORMAT" 0 rows imported
. importing table "XPTGLOBALATTRIBUTEFORMATSPEC" 0 rows imported
. importing table "XPTGRP" 375 rows imported
. importing table "XPTPAGE" 356 rows imported
. importing table "XPTPARENTCHILD" 695 rows imported
. importing table "XPTPCINFO1" 1335 rows imported
. importing table "XPTPCINFO1" 1335 rows imported
. importing table "XPTTYPE" 783 rows imported
. importing table "XSIMPLERS" 1 rows imported
. importing table "XTASKOBJECTC33200" 0 rows imported
Import terminated successfully without warnings.
D:\DELMIA\PPRServer\dbassistant\R19\db_scripts\db_scripts>sqlplus -s e5_database
r19/databaseora@PE11G @sql\prc_alter_storage_clause_e5_database.sql
Procedure created.

```

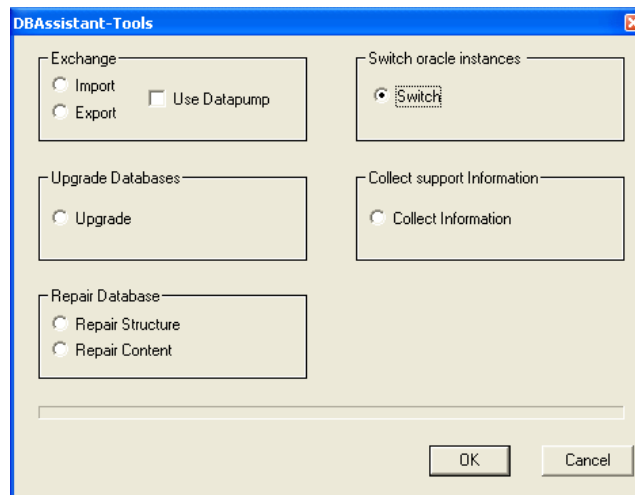
Figure 11: Import Successfull



### Note

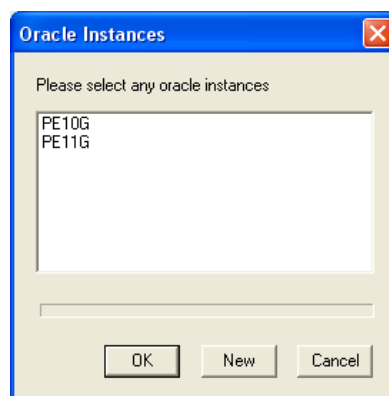
After import is done. Please switch your DPE 11g using DBAssitant –Tools as shown below.

14) Select **Switch** option in using DBAssitant –Tools.



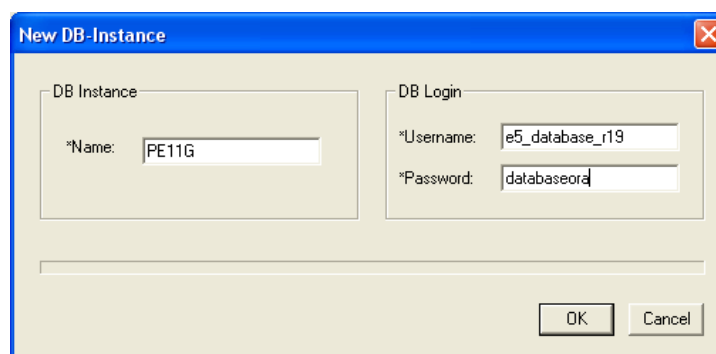
**Figure 12: DBAssistant –Tool Switch Option**

15) Select **New** option in Oracle Instances.



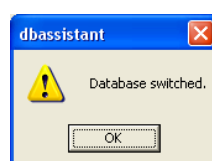
**Figure 13: Oracle Instances**

16) Enter 11g service name which is their in tnsnames.or a file, enter user-name and password.



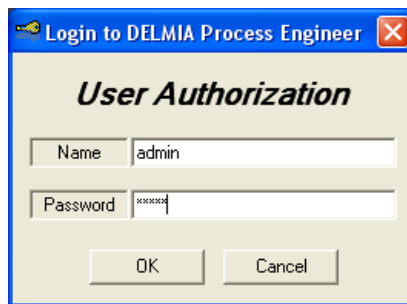
**Figure 14: New DB Instance**

17) Now your database is switched to 11g.Now try to open DPE.



**Figure 15: DB Assistant – Database Switched**

18) Now your database is upgraded to 11g.  
Login DPE.



**Figure 16: DPE Login**

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