

Oracle® Agile

Engineering Data Management

Server Installation Guide on Windows and UNIX for Agile e6.1.3.0

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Preface

The Oracle documentation set includes Adobe® Acrobat™ PDF files. The Oracle Technology Network (OTN) Web site (http://www.oracle.com/technology/documentation/agile.html) contains the latest versions of the Oracle Agile e6 PDF files. You can view or download these manuals from the Web site, or you can ask your Agile administrator if there is an Oracle Documentation folder available on your network from which you can access the documentation (PDF) files.

Note To read the PDF files, you must use the free Adobe Acrobat Reader™ version 7.0 or later. This program can be downloaded from the Adobe Web site (http://www.adobe.com).

Note Before calling Agile Support about a problem with an Oracle Agile e6 manual, please have the full part number ready, which is located on the title page.

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Readme

Any last-minute information about Oracle Agile e6 can be found in the Release Notes file on the Oracle Technology Network (OTN) Web site (http://www.oracle.com/technology/documentation/agile_eseries.html)

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Go to the Oracle University Web page (http://www.oracle.com/education/chooser/selectcountry_new.html) for more information on Agile Training offerings.

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Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

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Chapter 1

Introduction

This guide describes how to install the Agile e6.1.3.0 server on all supported operating systems – Windows and UNIX.

If the information varies between Windows and UNIX, a note is added to point out the differences.

Note The information in this document will always refer to Windows first, then to UNIX.

Installation Components

Possible installation components:

- Oracle Database Server 11g Release 2 (11.2.0.3) 64 Bit
- Oracle Database Client 11g Release 2 (11.2.0.3) 32 Bit
- Oracle WebLogic Server 12c (12.1.2)
- Agile e6 Server (always referred to as EDM Server)

The following table shows the different options to install the necessary components with the Agile e6 installer.

Note With the Agile e6 installer, every component has to be installed separately.

Note The installation scenarios in this document are assuming that Oracle WebLogic Server and EDM Server will be installed on the same machine.

In case of installing the Oracle WebLogic Server and the EDM Server on different machines, please refer to the chapter Component Based Installation.

The following table gives an overview of the installation components, their necessary requirements, and Windows / UNIX support.

Note Before installing Agile e6, make sure that you meet all installation prerequisites, including required operating system maintenance level fixes, and system patch levels, mentioned in the Prerequisites Guide for Agile e6.1.3.0.

Installation Component	Requirements for Windows and UNIX	Agile e6 Installer Support	
		Windows	UNIX
Oracle Database Server	▫ None ▫ The Oracle Database Server can be installed independently	Yes	No
Oracle Database Client	▫ After the Oracle Database Client is installed, the SQLnet has to be configured	Yes	No
Oracle WebLogic Server	▫ The installation source file (wls_121200.jar) has to be available on the hard disk, before installing the Oracle WebLogic Server with the Agile e6 Installer. ▫ After the Oracle WebLogic Server is installed, the Node Manager has to be configured.	Yes	Yes
EDM Server	▫ The Oracle Database Server has to be installed and running ▫ The Oracle Database Client 32 Bit has to be installed locally. ▫ The Oracle WebLogic Server has to be installed locally, with a running Node Manager.	Yes	Yes
Agile e6 File Server	▫ None ▫ The Agile e6 File Server can be installed independently. Note The Agile e6 File Server is usually installed on a different machine than the EDM Server.	Yes	No

Note Do NOT install on an existing EDM Server on Windows that is in use.

Syntax in Entire Document

	Description	Example
Path Names	The path name on a Windows operating system contains backslashes '\'.	C:\Windows\system32
	The path name on a UNIX operating system contains slashes '/'.	/usr/bin
Environment Variables	The environment variable on a Windows operating system has to be placed between two percent '%' characters.	echo %ORACLE_HOME%
	The environment variable on a UNIX operating system has to be placed after a dollar '$' character.	echo $ORACLE_HOME Or: echo ${ORACLE_HOME}

Chapter 2

Preparing the Installation

Download

Download and extract the necessary software packages from the Oracle Software Delivery Cloud https://edelivery.oracle.com/ or from Oracle Support (http://support.oracle.com).

- Oracle Agile Engineering Data Management Application (Release e6.1.3.0) Media Pack delivered by Oracle on the Oracle Software Delivery Cloud https://edelivery.oracle.com/.

  Open the file and extract it. This will create the directory Agile_e6130. This directory is later referred to as the <installation-media-path>.

  Note On UNIX, the unzip program has to be used to preserve all executable permissions while extracting the zip archive. Using ${JAVA_HOME}/bin/jar –xf <filename> to extract the zip archive will not preserve the executable permissions of the installation scripts. They will also be lost if the zip archive was extracted on a Windows system and then transferred to a UNIX system, or installed directly from a Windows share.

- Oracle Database 11g Release 2 (11.2.0.3) from Oracle Support (http://support.oracle.com) under the section Patches & Updates. Search the patch number 10404530. The installation source has to be unpacked on the hard disk first.

  Note Although it can be downloaded from the Patches & Updates section, the software is for full installation.

- Oracle Client 11g Release 2 (11.2.0.3) (32-bit) from Oracle Support (http://support.oracle.com) under the section Patches & Updates. Search the patch number 10404530. Please select the related 32bit operation system. The installation source has to be unpacked on the hard disk first.

  Note The 32-bit Oracle client must be installed on the machine where Agile e6.1.3.0 is installed

  Note For further information about the Oracle Database 11gR2, please refer to the chapter Installing Oracle Database Server.

- WebLogic 12.1.2 media pack delivered by Oracle on the Oracle Software Delivery Cloud https://edelivery.oracle.com/.

Further Preparation Steps

Windows

To complete all installation tasks, the cmd shell has to be started.

Note Always start the cmd shell with “Run as administrator”, even if you are doing the installation as the Administrator User.

To open the cmd shell with “Run as administrator”, do the following:

1. Select Start > All Programs > Accessories > Command Prompt.
2. Select Run as administrator from the context menu.

   The User Account Control Window appears.
3. Apply the needed credentials if asked, and select Yes/Continue to go ahead.

   The Windows cmd shell appears. This is the shell you have to use for all installation tasks.

UNIX

There are no special permissions required for starting the installation.

Note Please be prepared, that at the end of the Oracle Database or Oracle WebLogic installation, special permissions to execute the scripts as the root user might be requested.

Note Do not use the root user to install any components.

Enable Trace (optional)

If you want to have detailed trace messages for your GUI installation, the following environment variables have to be set:

Note The path to the log files has to exist and the installer directory is writeable by the user who starts the installation.

- Windows:
  - set plm_ant_loglevel=4
  - set plm_ia_stderr=C:\temp\iastderr.log

- set plm_ia_stdout=C:\temp\iastdout.log

- UNIX:
  - setenv plm_ant_loglevel 4
  - setenv plm_ia_stderr ${HOME}/temp/iastderr.log
  - setenv plm_ia_stdout ${HOME}/temp/iastdout.log

Oracle Database

For complete information on Oracle Database, refer to the Oracle Database Documentation Library at http://www.oracle.com/pls/db112/portal.all_books

WebLogic Server

For complete information on Oracle WebLogic Server, refer to the Oracle WebLogic Server Documentation Library at http://docs.oracle.com/middleware/1212/wls/index.html.

Chapter 3

Installation with the Agile e6 Installer

This chapter describes the installation with the Agile e6 Installer to install the Agile e6 Client, Oracle Database, Oracle WebLogic Server, and EDM Server.

Starting the Agile e6 Installer

Note Some of the values entered in the following screens will be validated, either while entering the values or after pressing the “Next” button. If the validation fails, the text color is displayed in red, or a message containing the error is displayed. First the error has to be corrected before you can proceed!

The input for TCP port numbers is limited to the range 1024 - 65535.

The input for the RPC number of the DTV daemon is limited to the range 536870912 - 1073741823

The WebLogic passwords must be between 8 and 20 characters long, and is limited to the following characters:

- Lower or upper-case alphabetic characters: a-z A-Z
- Decimal digits: 0-9
- Space
- One of the following characters: `!"#$%&'()*+,-./:;<=>?@[\]^_`{|}~`

1. Start a command shell.

- Windows

    1. Open an Administrative command shell and change to the installer directory: <installation-media-path>\installer.

        ```
        cd <installation-media-path>\installer
        ```

    2. Set the JAVA_HOME environment variable to the installed Java Development Kit. This has to be a 32Bit Java 7 Development Kit.

        ```
        set JAVA_HOME=C:\Program Files (x86)\Java\jdk7
        ```

    3. Start the installer from the command shell with the following command:

        ```
        gui.cmd
        ```

- UNIX

    1. Open a command shell and change to the installer directory <installation-media-

path>/installer.

```
cd <installation-media-path>/installer
```

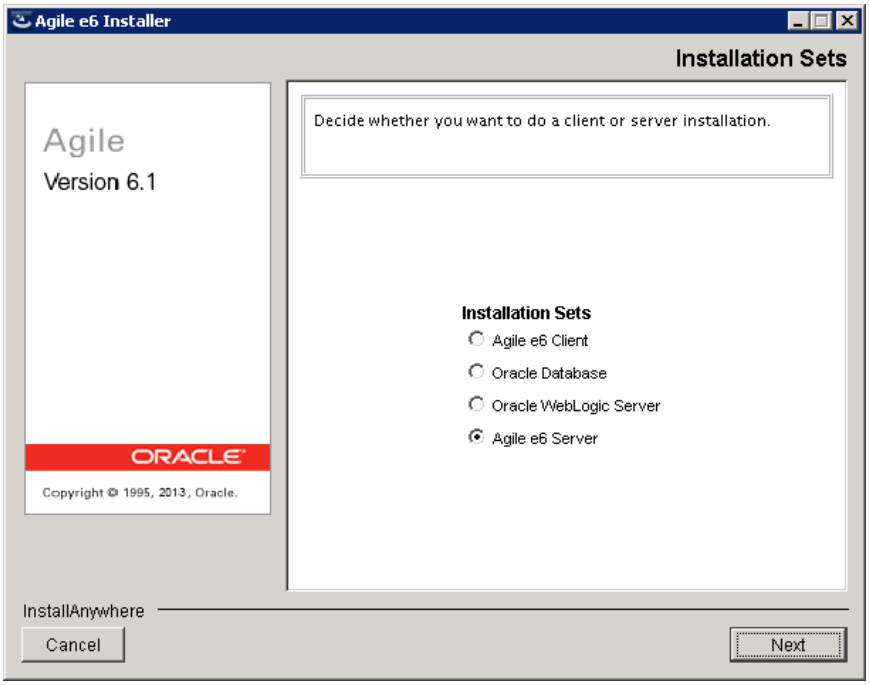
2. Set the JAVA_HOME environment variable to the installed Java Development Kit. This has to be a 32Bit Java 7 Development Kit.

   ```
   setenv JAVA_HOME /usr/local/java/jdk7
   ```

3. Start the installer with the following command:

   ```
   ./gui.csh
   ```

2. The Installation Sets screen is opened.



Note UNIX:

The “Agile e6 Client” and “Oracle Database” sets are not available on a UNIX operating system.

3. Select an Installation Set.

Depending on the selected installation, see the following sections for more detailed information:

- Oracle Database
- Oracle WebLogic Server
- Agile e6 Server

The Agile e6.1.3.0 client installation is described in the Installation Guide for Agile e6.1.3.0 Windows Client.

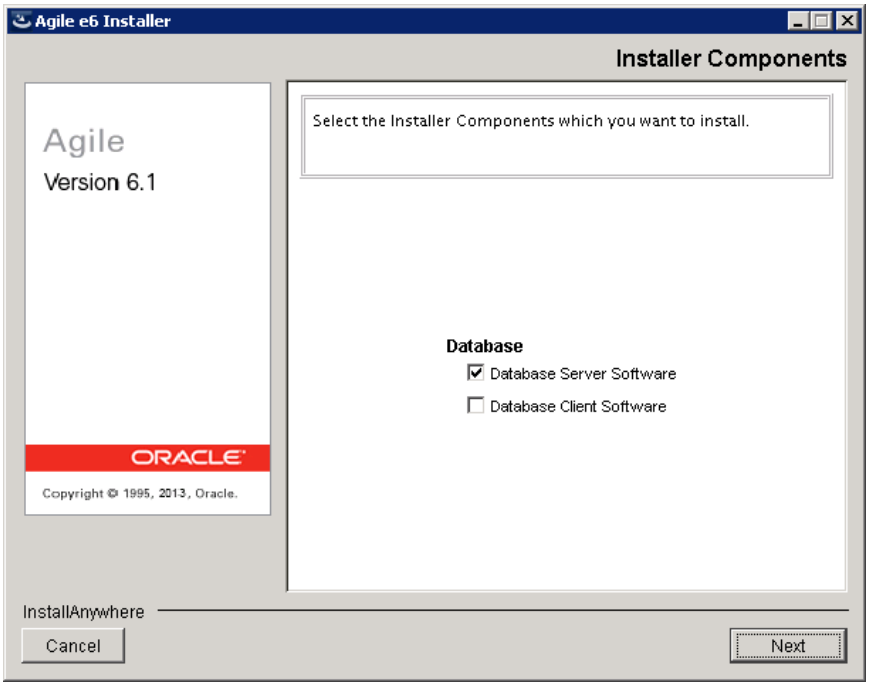
Oracle Database

Note UNIX:

This section is not available on a UNIX operating system. Please see chapter Installing Oracle Database Server for the manual installation of the Oracle Database.

1. Select Oracle Database and click Next.

   The Installer Components screen is opened.

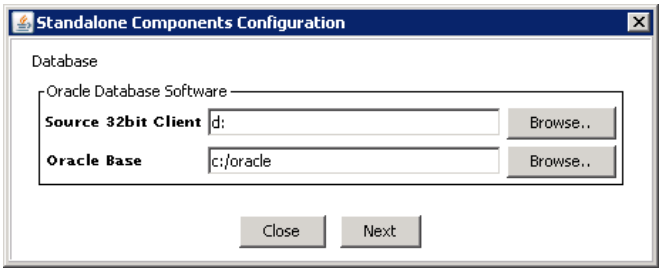


Component	Description
Database Server Software	Installs the Database Server Software and performs the instance setup.
Database Client Software	Installs the 32Bit Database Client Software. This is required on the machine where the EDM Server will be installed.

2. Select the component which should be installed and click Next.

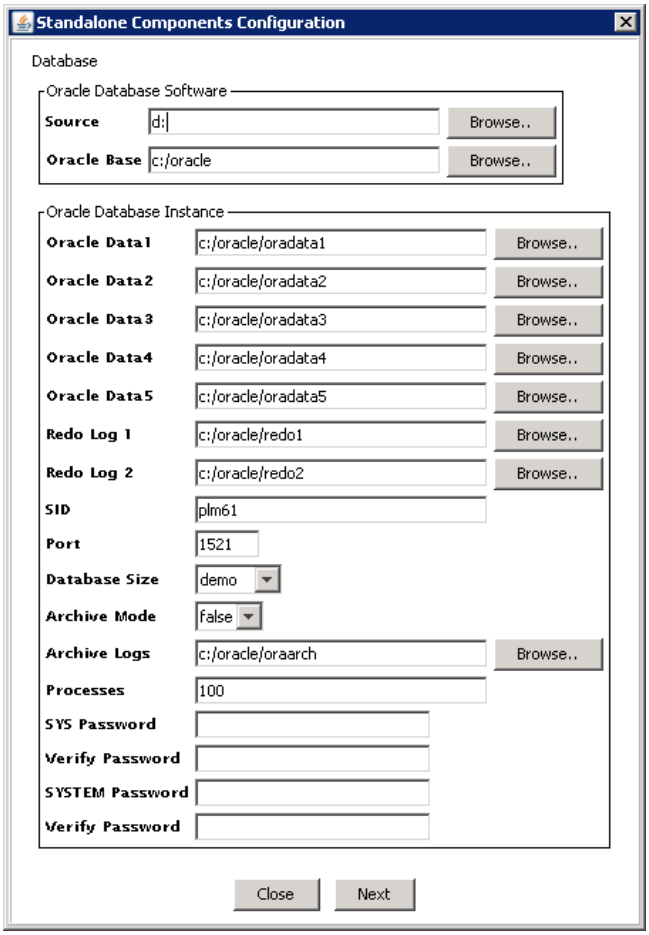
Note It is possible to install either the Server or the Client Software, or to select both and install them at same time.

If you selected only the Database Client Software, then the following screen is opened.



Setting	Description
Source 32bit Client	The source of the 32bit Oracle client installation media.
Oracle Base	The ORACLE_BASE directory where you want to install the Oracle client.

If you selected only the “Database Server Software”, then the following screen is opened.



Oracle Database Software section

Setting	Description
Source	The source of the 64Bit Oracle database server installation media.
Oracle Base	The ORACLE_BASE directory where you want to install Oracle or where the instance (e.g. for Oracle 11gR2 the path should look like “C:\oracle”) should be created.

Oracle Database Instance section

Setting	Description
Oracle Data1-5	The Oracle database files can be stored on up to 5 disks. If you have less than 5 disks, put more data files on the same disks. Under the selected directory, the directory “oradata\<SID>” will be created (e.g. you selected “c:\oracle\oradata1” the db files will be placed in “c:\oracle\oradata1\oradata\plm61”) Oracle Data1: CONTROL01.CTL, EDB_LOB01.DBF, EDB_TMPIDX01.DBF, EDB01.DBF Oracle Data2: CONTROL02.CTL , EDB_IDX01.DBF, EDB_TMP01.DBF Oracle Data3: CONTROL03.CTL, TEMP01.DBF Oracle Data4: UNDOTBS01.DBF Oracle Data5: SYSAUX01.DBF, SYSTEM01.DBF, TOOLS01.DBF, USERS01.DBF
Redo Log 1-2	The 2 sets of the database Redolog files will be stored on two disks. 1. On location Redolog1 2. The copies on location Redolog2. Under the selected directory, the directory “oradata\<SID>” will be created (e.g. you selected “c:\oracle\oradata1” the database files will be placed in “c:\oracle\oradata1\oradata\plm61”).
SID	The SID of the instance.
Port	The port of the listener (default is 1521).
Database Size	Depending on how big the database dump is, different values can be selected. Note Further information can be found in the Hardware Sizing Guide for Agile e6.1.3.0.
Archive Mode	▫ True: ▫Activates the archive mode of the database (mandatory for production usage). ▫ False: ▫Does not activate the archive mode for the database.
Archive Logs	Destination of the archive log files.

Setting	Description
Processes	Depending on how many users will connect to the application, an appropriate value has to be applied here. Note Further information can be found in the Hardware Sizing Guide for Agile e6.1.3.0.
SYS Password	The password which should be used for the Oracle SYS user.
Verify Password	The password entered above has to be repeated for verification.
System Password	The password which should be used for the Oracle SYSTEM user.
Verify Password	The password entered above has to be repeated for verification.

3. Define the configuration options and click Next.

   The Oracle Database installation starts.

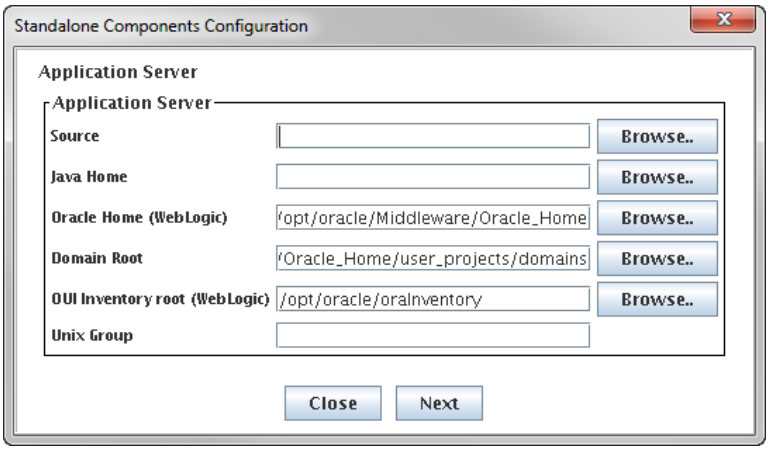
Note Database Pump will not be configured during the automatic installation. Please see the Create Directories for the Oracle Data Pump Utility section in Chapter Post-Installation Modifications for the Oracle Database.

Oracle WebLogic Server

Note The 64-bit Java 7 has to be installed before starting the Oracle WebLogic Server installation.

1. Select Oracle WebLogic Server and click Next.

   The Standalone Components Configuration screen is opened.



Setting	Description
Source	The source directory which contains the “wls_121200.jar” file. This file is the installer of WebLogic.

Setting	Description
Java Home	Java 7 64-bit home directory which will be used for the installation and Development Kit of the WebLogic Server.
Oracle Home (WebLogic)	The Oracle Home where you want to install WebLogic, e.g.: ▫ Windows ▫D:/Oracle/Middleware/Oracle_Home ▫ UNIX ▫/opt/oracle/Middleware/Oracle_Home
Domain Root	The root directory where the Agile e6 WebLogic domains should be created e.g.: ▫ Windows ▫D:/Oracle/Middleware/Oracle_Home/user_projects/domains ▫ UNIX ▫/opt/oracle/Middleware/Oracle_Home/user_projects/domains In this directory, the installer will create all domains used by the Agile e6 J2EE components.
OUI Inventory root (WebLogic)	Inventory root directory for the Oracle Universal Installer for WebLogic. Note Windows: ▫This is not available on a Windows operating system. Note UNIX: ▫This field is only displayed if no previous OUI Inventory is found, and the current user has no permission to write to it. Note It is not allowed to put the OUI Inventory root directly in the Oracle Home (WebLogic) directory, or any sub directory of it. This will result in an error while installing the WebLogic server.
UNIX Group	Name of the group which has write permissions to create/update the Oracle Home Inventory directory for the WebLogic server. Note Windows: ▫This is not available on a Windows operating system. Note UNIX: ▫This field is only displayed if no previous OUI Inventory is found and the current user has no permission to write to it.

Note The Oracle Home (WebLogic) and the Domain Root directories must include only alphanumeric characters, hyphens ('-'), underscore characters ('_') or slash characters ('/'), and contain at least one letter or digit.

On Windows, backslash characters ('\'), which will be used while using the Browse button, are later internally replaced to slash characters ('/') while installing the WebLogic server.

2. Define the component configuration options and click Next.

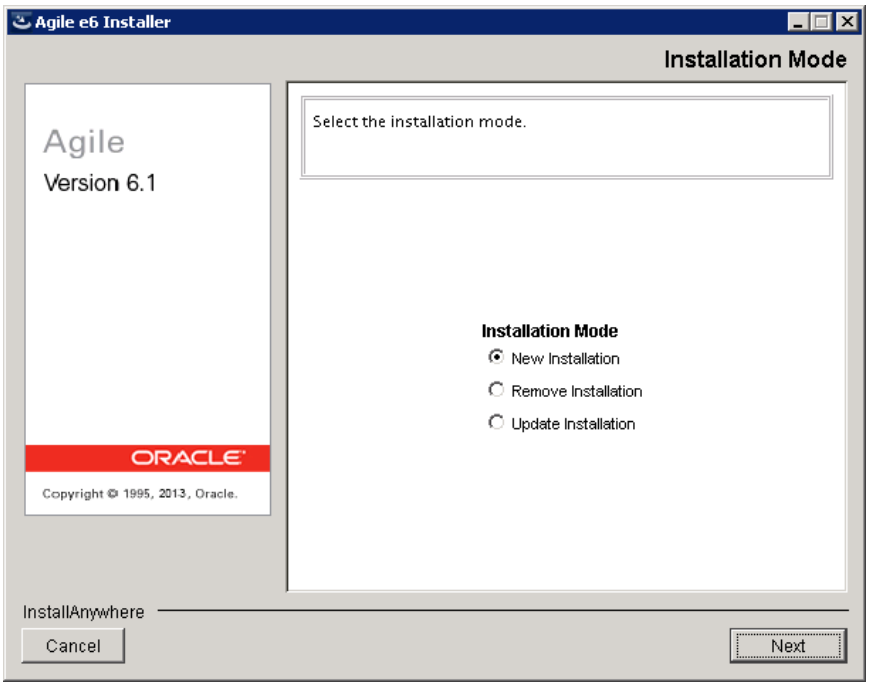
The WebLogic installation starts.

3. The WebLogic Node Manager has to be configured manually after the installation is done. See also section Node Manager Configuration in chapter Installing Oracle WebLogic Server.

Agile e6 Server

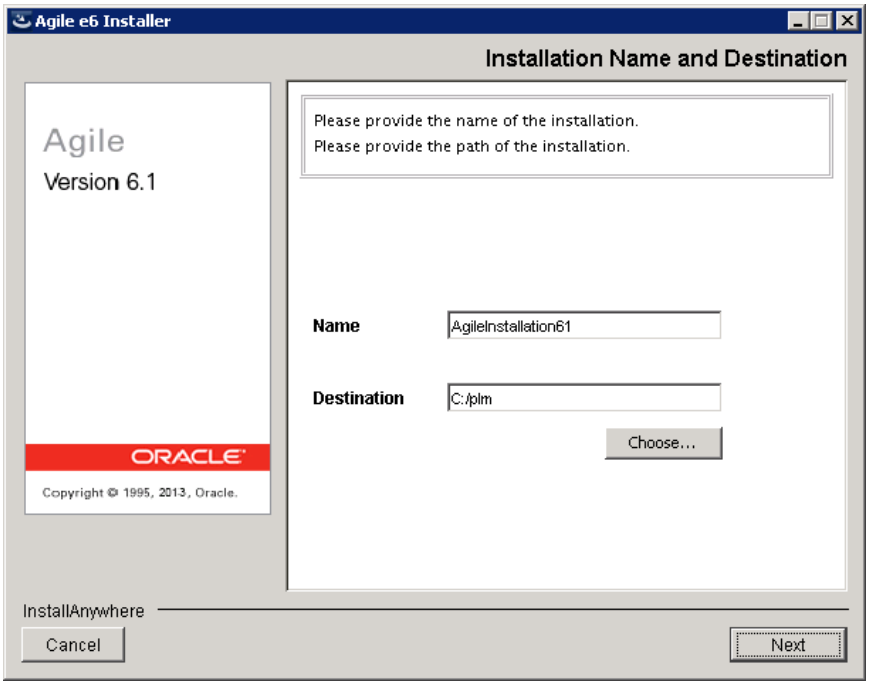
1. Select Agile e6 Server and click Next.

   The Installation Mode screen is opened.



2. Select New Installation and click Next.

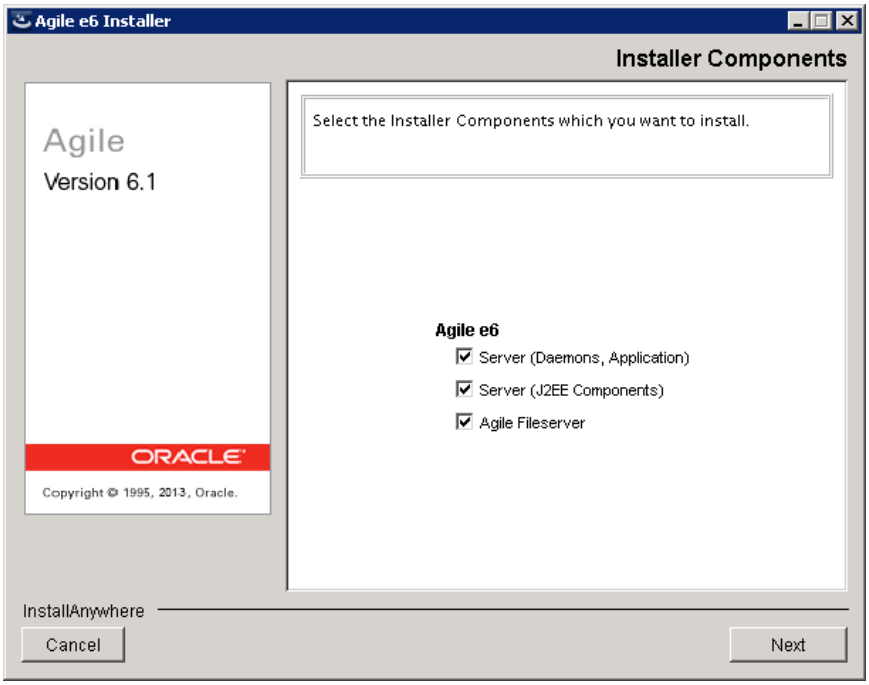
   The Installation Name and Destination screen is opened.



Field	Description
Name	Installation name. This has to be a unique name which identifies the current installation. All components installed during this installation session will be installed under this ID. Note The installation name can consist of ASCII characters and numbers, and no special characters.
Destination	Installation destination. Root path where Agile e6 is going to be installed. This has to be a non existing path.

3. Enter the installation name and the installation destination and click Next.

   The Installer Components screen is opened.

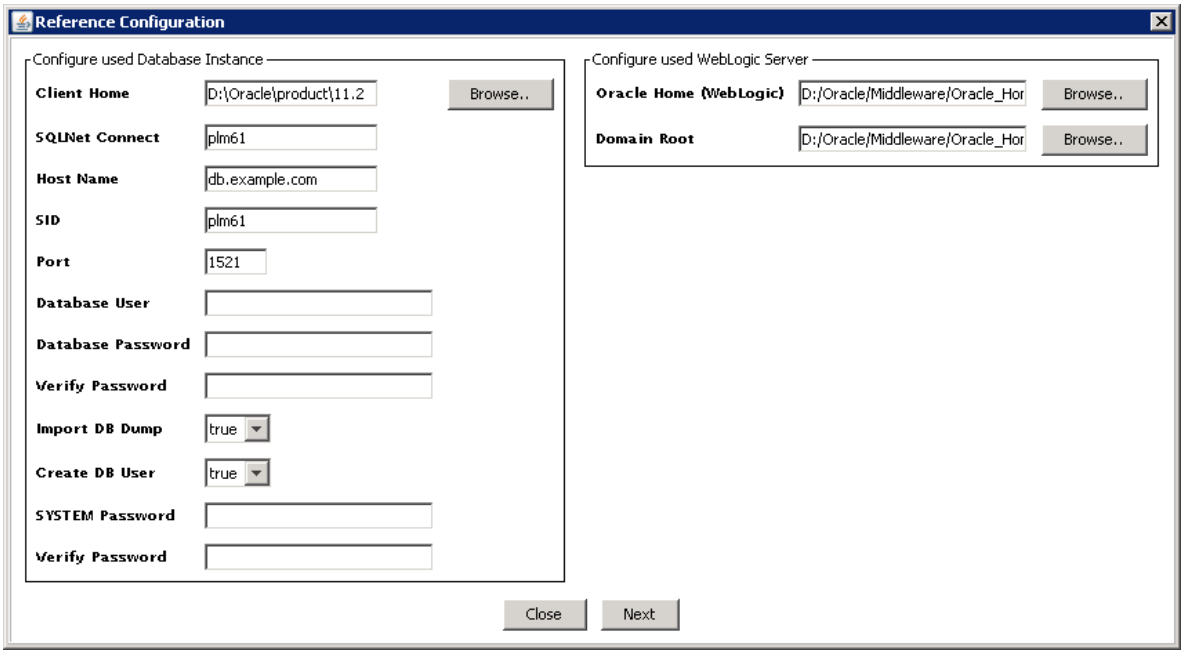


Component	Description
Server (Daemons, Application)	Core EDM Server components. Java Daemon, FMS Java Daemon, DataView Daemon, Portmapper, initial Application. Note The Oracle database client 32Bit has to be already installed.
Server (J2EE Components)	J2EE Agile e6 components All components which will be deployed to Oracle WebLogic Server. Note The Oracle WebLogic Server has to be already installed.
Agile Fileserver	The Agile Application Files Server.

4. Select the component(s) to be installed and click Next.

   The Reference Configuration screen is opened.

Note Depending on the selected installer components, the following screen can look different.



5. Configure used Database Instance section.

Setting	Description
Client Home	The Oracle database client 32Bit home directory.
SQLNet Connect	The connect string as it is defined in your %ORACLE_HOME%/network/admin/tnsnames.ora file. ▫ Windows: Start the Oracle Net Manager. Start > All Programs > Oracle - OraDb11g_home1 > Configuration and Migration Tools > Net Manager. Note UNIX: ▫On UNIX this has to be configured manually in advance. ▫For further information about the SQLNet configuration, please refer to chapter Post-Installation Modification for the Oracle Database, section Configuring the Database Net Service Name.
Host Name	The host name of your database server.
SID	The SID of the database you want to connect to.
Port	The port where the listener listens on the database server.
Database User	The database user you want to use for the application.
Database Password	The password of the database user.
Verify Password	The password entered above has to be repeated for verification.

Import DB Dump	Select, if you want the standard dump to be imported to the above defined database user.
Create DB User	Select, if you want the database user to be created automatically.
SYSTEM Password	Password of the Oracle database user. You only have to apply a value here if you want to create a new database user and selected that in the field above.
Verify Password	The password entered above has to be repeated for verification.

6. Configure used WebLogic Server

Setting	Description
Oracle Home (WebLogic)	The Oracle Home directory where WebLogic is installed, e.g.: ▫ Windows: ▫D:/Oracle/Middleware/Oracle_Home ▫ UNIX ▫/opt/oracle/Middleware/Oracle_Home
Domain Root	The root directory where the Agile e6 WebLogic domains should be created, e.g.: ▫ Windows ▫D:/Oracle/Middleware/Oracle_Home/user_projects/domains ▫ UNIX ▫/opt/oracle/Middleware/Oracle_Home/user_projects/domains In this directory, the installer will create all domains used by the Agile e6 J2EE components.

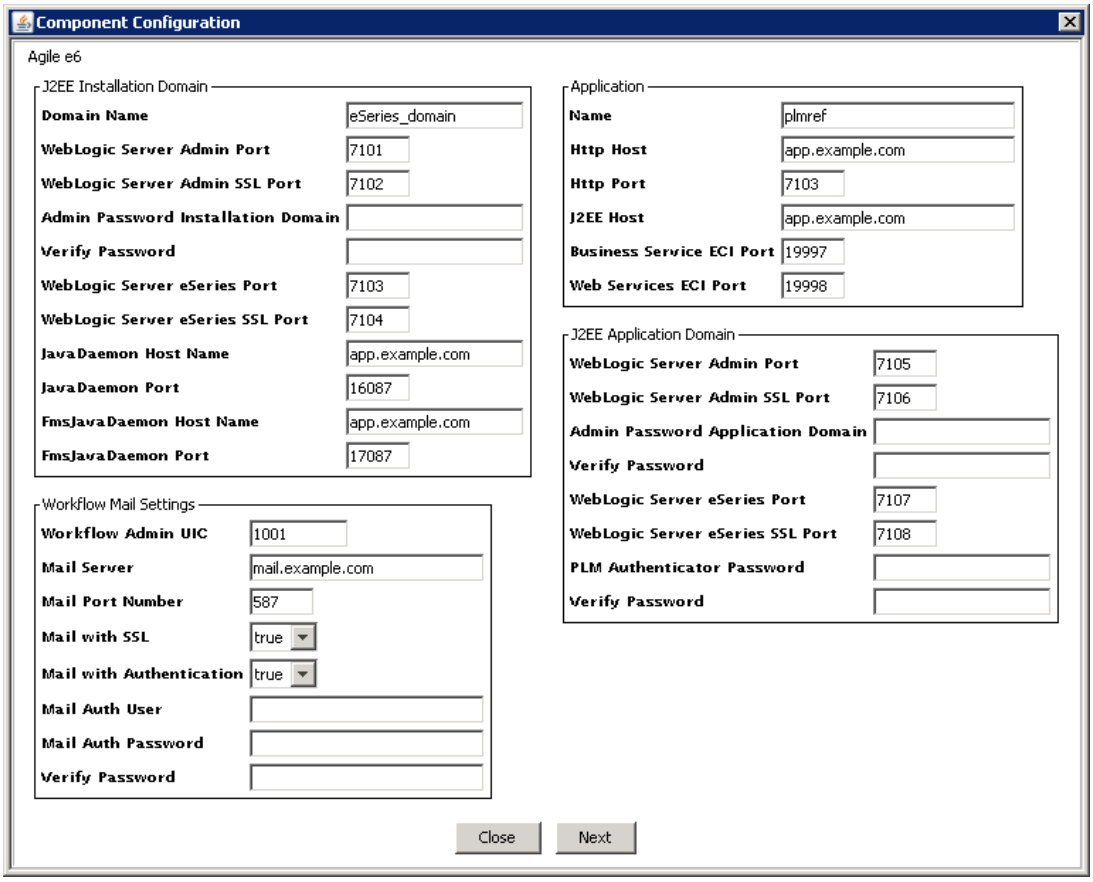
Note The Oracle Home (WebLogic) and the Domain Root directories must include only alphanumeric characters, hyphens ('-'), underscore characters ('_'), or slash characters ('/'), and contain at least one letter or digit.

On Windows, backslash characters ('\'), which will be used while using the Browse button, are later internally replaced to slash characters ('/') while installing the WebLogic server.

7. When the reference configuration options are defined, click Next.

The Component Configuration screen is opened.

Note Depending on the selected installer components the following screen can look different.



J2EE Installation Domain section

Setting	Description
Domain Name	Name of the domain for the installation specific Agile e6 J2EE components:
WebLogic Server Admin Port	The listen port for the WebLogic administration server
WebLogic Server Admin SSL Port	The SSL listen port for the WebLogic administration server for the installation domain.
Admin Password Installation Domain	The password of the WebLogic user used for the installation domain
Verify Password	The password entered above has to be repeated for verification.
WebLogic Server eSeries Port	The listen port for the WebLogic EDM server. The installer will create a separate managed server with name “eSeries-01” in addition to the administration server. This server will contain the installation specific deployments.
WebLogic Server eSeries SSL Port	The SSL listen port for the WebLogic EDM server.
Java Daemon Host Name	The host name where the Agile e6 Java Daemon is/will be running

Java Daemon Port	The Java Daemon port.
FmsJavaDaemon Host Name	The host name where the Agile e6 FMS Java Daemon is/will be running.
FmsJavaDaemon Port	The FMS Java Daemon port

Workflow Mail Settings section

Setting	Description
Workflow Admin UIC	The UIC of an Agile e6 user who has administrative rights for the Workflow module. He will receive mails about administrative problems in the Workflow module (1000 - 99999).
Mail Server	The name of your SMTP mail server if you want to send emails via the Business Services. Mailing will be disabled if no host name is set.
Mail Port Number	The port number of your SMTP mail server if you want to send emails via the Business Services. (587 is the Submission port for using encryption. 25 is the old standard SMTP port).
Mail with SSL	If enabled then SSL will be used to encrypt the connection to your SMTP mail server if you want to send emails via the Business Services.
Mail with Authentication	If enabled then use the following user/password to authenticate against the mail server if you want to send emails via the Business Services.
Mail Auth User	User name if the Mail Authentication for your SMTP mail server is activated.
Mail Auth Password	Password if the Mail Authentication for your SMTP mail server is activated.
Verify Password	The password entered above has to be repeated for verification.

Application section

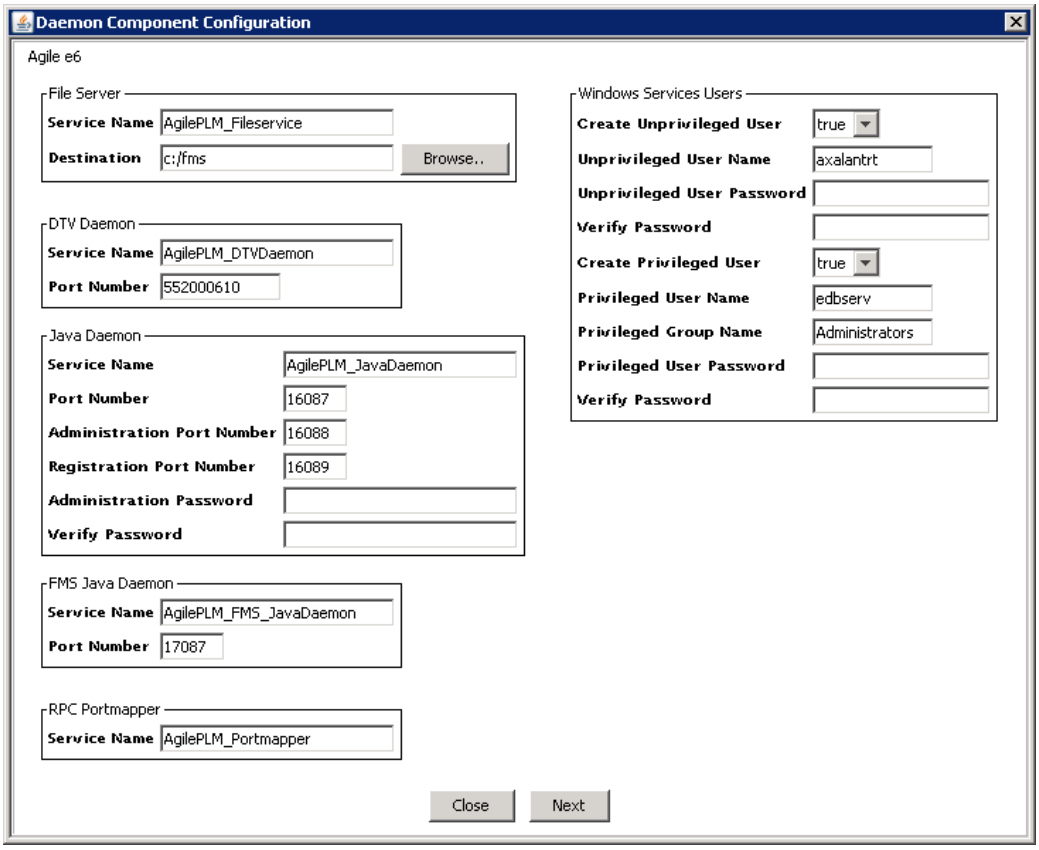
Setting	Description
Name	The name of the default application you want to create.
Http Host	The host where the Web Client can be reached over HTTP (the WebLogic Server hostname).
Http Port	The port where the Web Client can be reached over HTTP (the HTTP port of WebLogic Server).
J2EE Host	The host where Business and/or Web Services are running (the WebLogic server host name).
Business Service ECI Port	The port where the Business Service will be configured to “listen” for requests sent from an EDM Server process.
Web Services ECI Port	The port where the Web Services will be configured to “listen” for requests sent from an EDM Server process.

J2EE Application Domain section

Setting	Description
WebLogic Server Admin Port	The listen port for the WebLogic administration server for the application domain.
WebLogic Server Admin SSL Port	The SSL listen port for the WebLogic administration server for the application domain.
Admin PWD Installation	The password of the WebLogic user used for the application domain.
Verify Password	The password entered above has to be repeated for verification.
WebLogic Server eSeries Port	The listen port for the WebLogic EDM Server. The installer will create a separate managed server with name “eSeries-01” in addition to the administration server. This server will contain the application specific deployments.
WebLogic Server eSeries SSL Port	The SSL listen port for the WebLogic EDM Server.
PLM Authenticator Password	Password of the WebLogic user PlmAuthenticatorDSUser, which secures the Data Source PlmAuthenticatorDS used by the PLM Authentication provider.
Verify Password	The password entered above has to be repeated for verification.

8. When the component configuration options are defined, click Next.

   The Daemon Component Configuration screen is opened.



File Server section

Setting	Description
Service Name	The Windows Service name. Note UNIX: ▫This is not available on a UNIX operating system
Destination	The destination of the File Server binaries.

The File Server default RPC port is 804257548.

To use a different RPC port you have to change the value in the Windows registry after the installation has finished and restart the File Server service:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Agile\AgilePLM_Fileservice\RPC_
NMB
```

Note For further information regarding the configuration of the File Server and how to set up vaults, please refer to the Online Help > File Server > Manager Information documentation.

Dtv Daemon section

Setting	Description
Service Name	The Windows Service name. Note UNIX: ▫This is not available on a UNIX operating system
Port Number	The port number the daemon should use.

Java Daemon section

Setting	Description
Service Name	The Windows Service name. Note UNIX: ▫This is not available on a UNIX operating system
Port Number	The port number the daemon should use.
Admin Port Number	The admin port number the daemon should use.
Registration Port Number	The registration portnumber the daemon should use.
Administration Password	Password for the administration Interface of the Java Daemon.
Verify Password	The password entered above has to be repeated for verification.

FMS Java Daemon section

Setting	Description
Service Name	The Windows Service name. Note UNIX: ▫This is not available on a UNIX operating system
Port Number	The port number the daemon should use.

RPC Portmapper section

Note This section is only available on a Windows operating system.

Setting	Description
Service Name	The Windows Service name.

Windows Services Users section

Note This section is only available on a Windows operating system.

Setting	Description
Create Unprivileged User	Select 'true' if you want the Local Unprivileged Windows User to be created automatically.
Unprivileged User Name	Local Windows User which is used by the following services: DTV, Java, FMS Java, and Portmapper.
Unprivileged User PWD	Password for the above user.
Verify Password	The password entered above has to be repeated for verification.
Create Privileged User	Select 'true' if you want the Local Privileged Windows User to be created automatically.
Privileged User Name	Local Windows User which is used by the following service: File Server.
Privileged Group Name	Local Windows Group which is used by the privileged user.
Privileged User PWD	Password for the above user.
Verify Password	The password entered above has to be repeated for verification.

9. When the daemon component configuration options are defined click Next.

   The installation begins.

10. After the installation, the services status depends on the operating system.

- Windows

  All EDM Server services are not started.

- UNIX

  After the installation, all required processes should be running except the AdminClient service.

  To start the AdminClient running in Apache Tomcat, enter the following:

```
cd $HOME/agile/installer/6.1.3/admin/apache-tomcat/bin
./startup.sh
```

  This will start the standard Apache Tomcat on the port 8030 (HTTP) with the AdminClient application deployed inside.

Note Further information about secure environment with HTTPS can be found in the Security Guide for Agile e 6.1.3.0.

AutoVue Integration Setup

If you want to use the AutoVue integration, refer to the AutoVue Integration Installation and Administration Guide for Agile e6.1.3.0.

Chapter 4

Component Based Installation

The EDM Server J2EE components installation requires the WebLogic server on the machine where the installation is performed. If you have decided to have WebLogic running on a separate server you can follow the steps described below to install J2EE components and native components on separate server. This is called component based installation

Note On Unix, a component based installation also needs to be performed when installing the WebLogic server and the EDM Server on the same machine with two different OS users. Thus, two Administration Clients with the same port numbers are created.

To change the listening port numbers of the Administration Client, please refer to the section The Administration Client > Changing the Apache Tomcat Configuration in this guide.

The installation where J2EE components are installed will be called the “J2EE installation”, and the installation where the native components like java,dtv daemon are installed will be called “native installation”.

In general, follow the instructions in the section Agile e6 Server of the chapter Installation with the Agile e6 Installer.

This chapter describes the adaptations for a component based installation. Only the differences are described.

Requirements

The WebLogic software, as well as the Agile e6 native components need to be installed before installing the Agile e6 J2EE components.

Installing Agile e6 Native Components

Following components will be installed:

- Administration Client
- Java Daemon
- FMS Java Daemon
- DTV Daemon

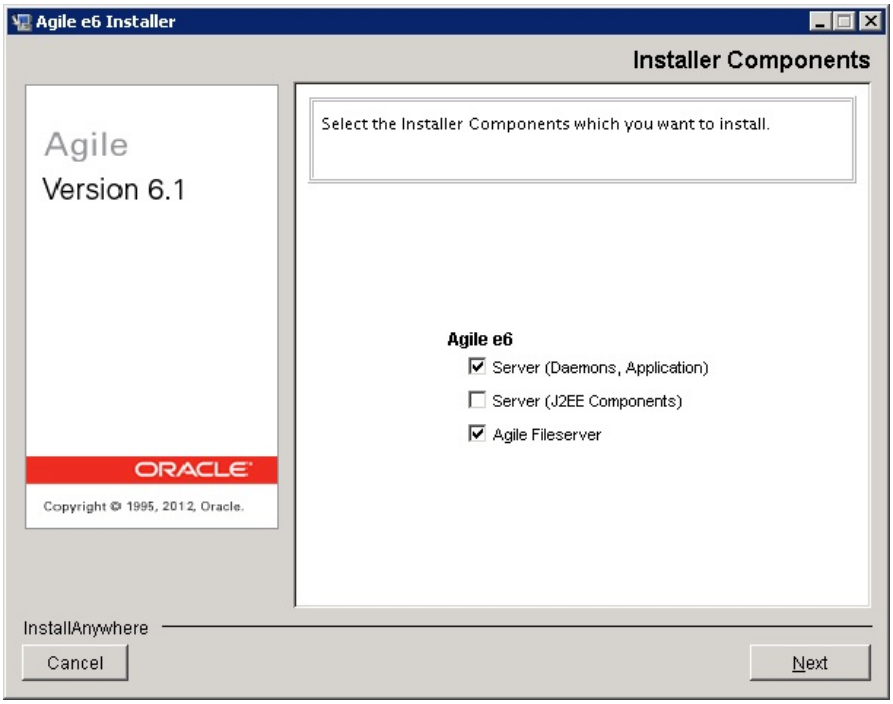
- Server libraries
- File Server
- Applications (plmref)

1. Login to the machine where you want to install “Agile e6 Native Components”.
2. Follow the instructions in the section Agile e6 Server of the chapter Installation with the Agile e6 Installer.

Note WebLogic server installation is not required.

Note Oracle 32 bit database client installation is required.

The Installer Component screen is opened.



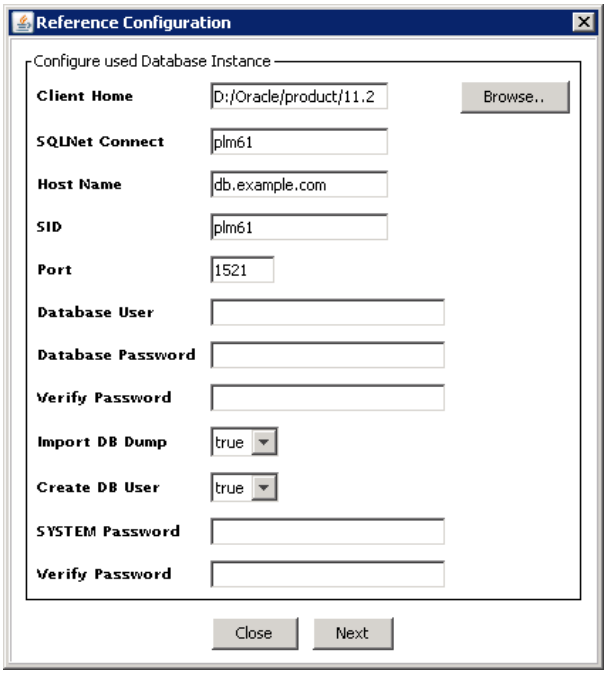
3. Deselect Server (J2EE Components).

   This will prevent the setup of the Agile e6 J2EE Components.

   If you do not want the Agile File Server to be installed, deselect it too.

4. After removing the selection of the Server (J2EE Components) click Next.

   The Reference Configuration screen is opened.

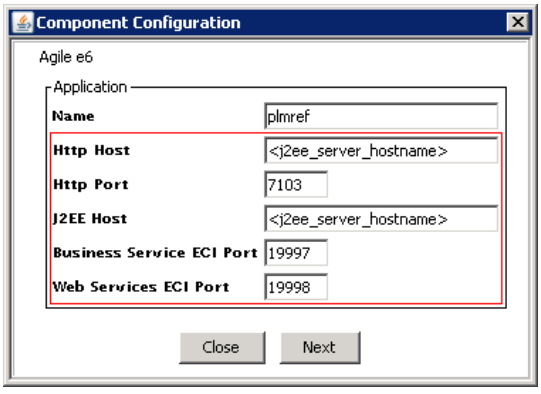


The following values must be identical for the native and the J2EE installation.

Setting	Description
Database User	The database user you want to use for the application.
Database Password	The password of the database user.

5. When the reference configuration options are defined, click Next.

6. Adapt the values in the Component Configuration mask.



The following values must be identical for the native and the J2EE installation.

Setting	Description
Name	The name of the default application you want to create.

The J2EE Components are not installed at this point. You have to use the values marked in red later to setup the Agile e6 J2EE components.

Following values must match the values of your J2EE installation. These are references to these values.

Setting	Description
J2EE Host	The host where WebLogic is running (the WebLogic server host name).
Http Host	The host where the Web Client can be reached over HTTP (the WebLogic server hostname).
Http Port	The port where the Web Client can be reached over HTTP (the HTTP port of WebLogic server).
Business Service ECI Port	The port where the Business Service will be configured to "wait" for requests.
Web Services ECI Port	The port where the Web Services will be configured to "wait" for requests.

The Daemon Component Configuration screen is opened.

To continue, please follow the instructions in section Agile e6 Server step Daemon Component Configuration.

Note WebLogic domains will not be set up.

Note Batch deployment tasks must be executed on the J2EE installation only

Installing Agile e6 J2EE Components

Following components will be installed:

- Administration Client
- Staging directory (see section "Deploying Customer Adapted Files" in the Administration Guide for Agile e6.1.3.0)
- Applications (plmref)
- WebLogic Domains containing deployments

To install Agile e6 J2EE components:

1. Login to the machine where you want to install Agile e6 J2EE components.

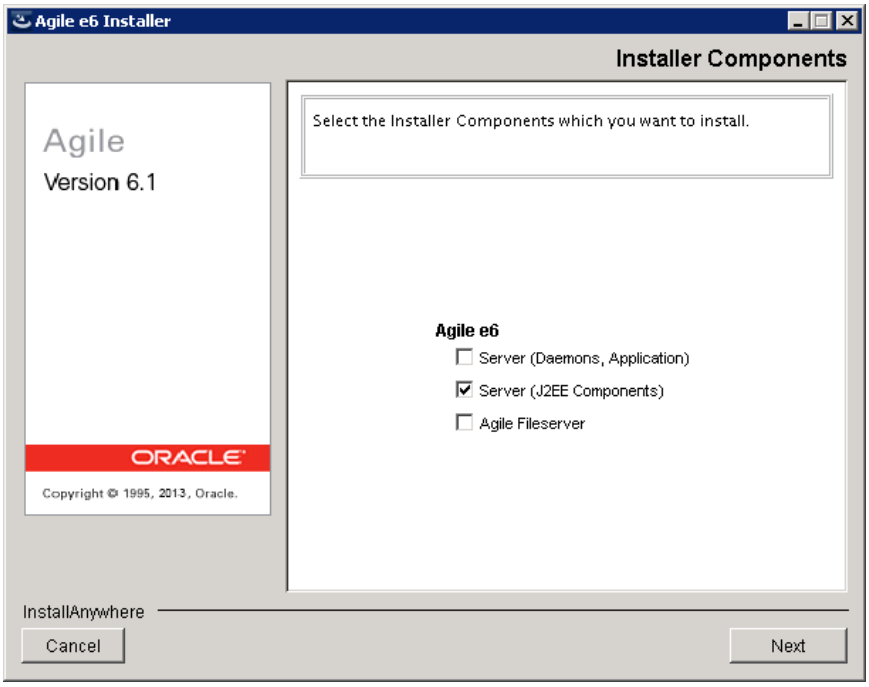
   Note You have to use the WebLogic installation user to install the Agile e6 J2EE components.

2. Follow the instructions in the section Agile e6 Server of the chapter Installation with the Agile e6 Installer.

Note Oracle database client installation is not needed.

The “Installer Component” screen is opened.

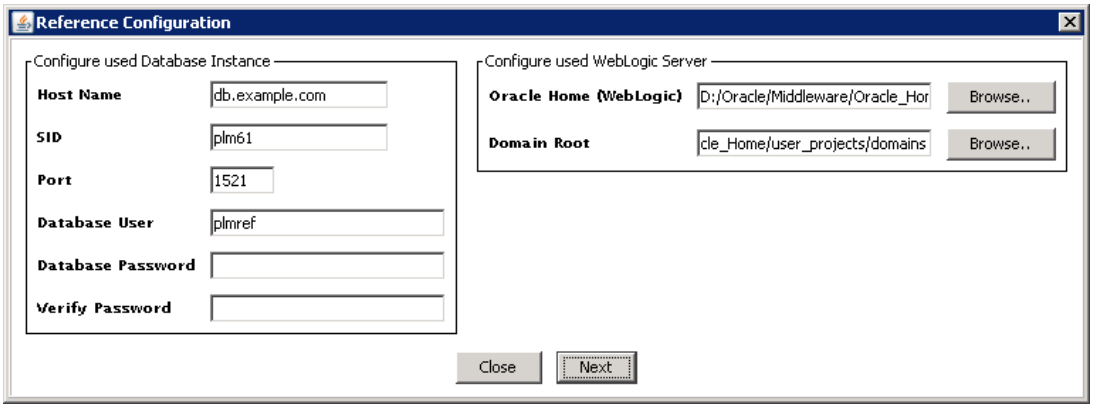
3. Deselect Server (Daemons, Application).



This will prevent the setup of the “Agile e6 Native Components”.

4. Select Server (J2EE Components) and click Next.

The Reference Configuration screen is opened.

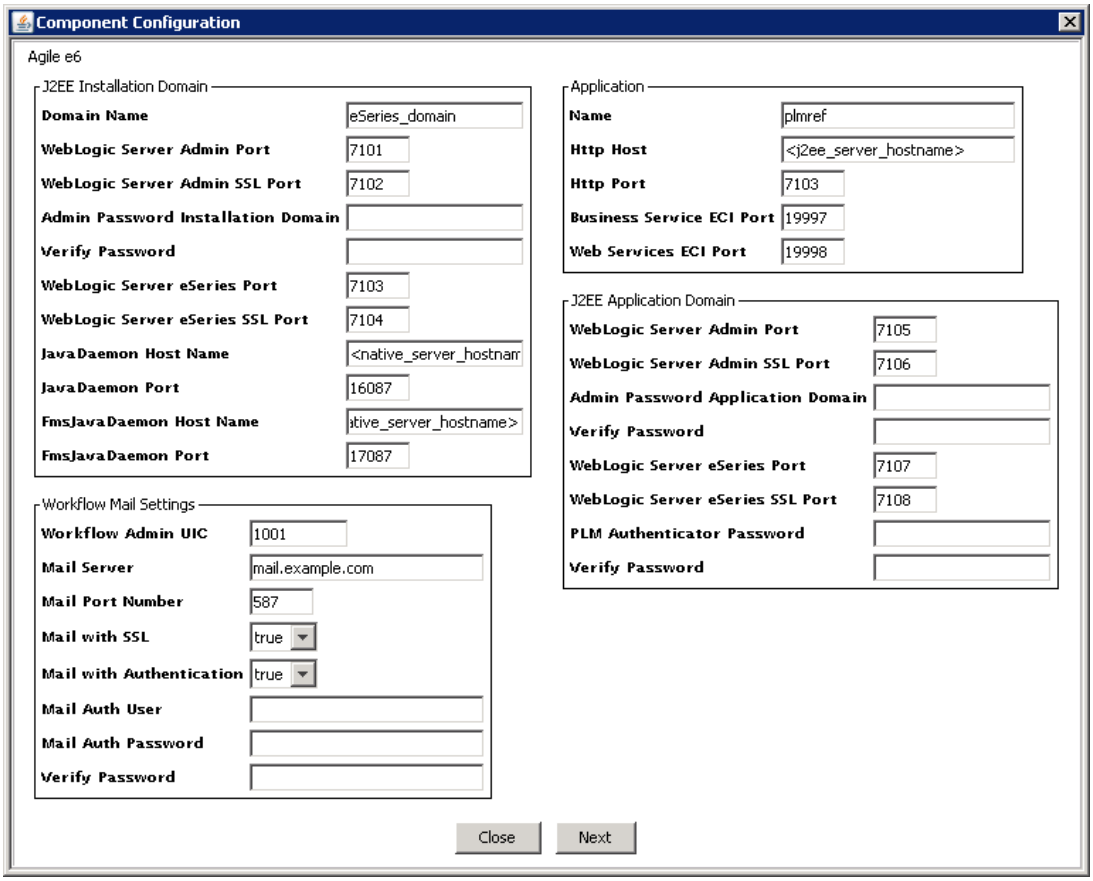


The following values must be identical for the native and the J2EE installation.

Setting	Description
Database User	The database user you want to use for the application.
Database Password	The password of the database user.

5. When the reference configuration options are defined, click Next.

   The Component Configuration screen is opened.



The following value must be identical for the native, and the J2EE installation.

Setting	Description
Name	The name of the default application you want to create

6. Apply the values of your native installation as given in fields.

   Following values must match the values of your native installation. These are references to these values.

Setting	Description
Java Daemon Host Name	The hostname where the Agile e6 Java Daemon is/will be running.

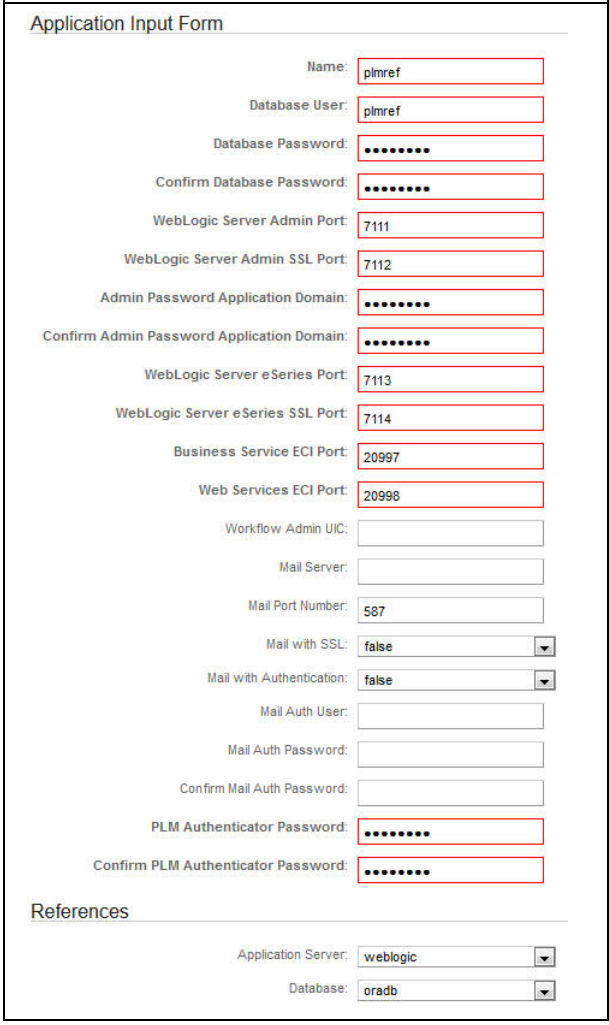
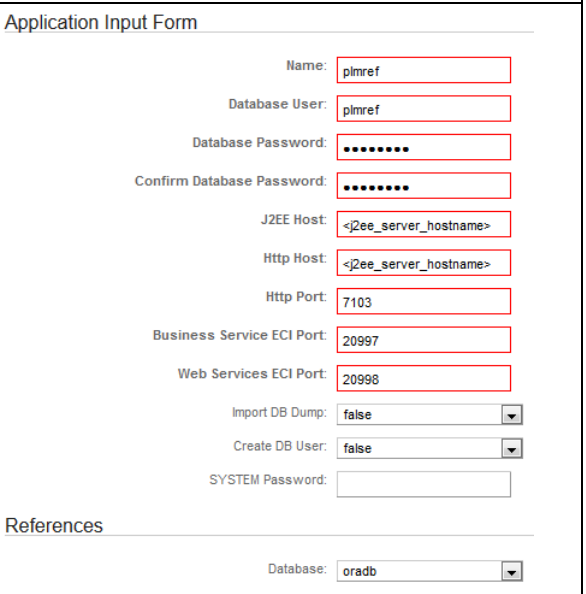
Java Daemon Port	The Java Daemon port.
FmsJava Daemon Host Name	The hostname where the Agile e6 FMS Java Daemon is/will be running.
FmsJava Daemon Port	The FMS Java Daemon port.

7. Follow the instructions in the installation documentation of your operating system.

Creating the Application

In a component based installation, every application has to be created on the native installation, and on the J2EE installation. The Administration client, however, is available for both installations. The Administration client checks whether it should manage a J2EE or a native installation.

Applications can be created as usual. Following two screenshots show the differences to the default web forms for the application creation with the Administration Client.

J2EE Application Creation	NATIVE Application Creation
	

Chapter 5

Batch Installation of the Agile e6 Server

This chapter describes the batch installation of the Agile e6 Server components

Note The Agile e6.1.3.0 installer is fully batch enabled.

Note Database Client and Server, and WebLogic Server installation have to be available. The Database must be running before starting to install Agile e6 J2EE and EDM Server.

Note Deploying the J2EE application in batch modes requires a WebLogic Node Manager which has been configured and is running. WebLogic domains will be setup and started during the batch installation.

All installation tasks can be done in batch mode providing all necessary attributes in a property file.

Batch Modes

The batch installation has two modes:

- Complete EDM Server installation (without the WebLogic server and the Database Client/Server) - default
- Component based installation

The batch installation scripts for UNIX (batchinstall.csh) and Windows (batchinstall.cmd) have two parameters.

- First parameter (mandatory):

  Property file with the installation attributes.

- Second parameter (optional):

  Defines the components which should be installed.

The following table describes the components which will be installed, based on the second parameter. There are also different example files for the required property attributes which can be used as a start for your own property file.

Note It is not possible to start the batch installation script once and then restart it with a second parameter to install other component(s). The second installation will either cancel with an error or destroy the installation from the first execution.

Second Parameter	Components	Example properties file (located in <install-media-path>\installer\properties)
ALL	The native EDM Server, File Server and WebLogic domains with all deployments (default).	tpl_installation.properties
E6S	The native EDM Server.	tpl_installation.properties
E6F	The native EDM Server and the File Server.	tpl_installation.properties
E6J	The native EDM Server and WebLogic domains with all deployments.	tpl_installation.properties
DFM	The File Server, FMS Java Daemon, and the Tomcat server with the DFM deployments.	examples\batch_install_dfm.properties
FMS	The File Sserver.	examples\batch_install_fms.properties
J2EE	The WebLogic domains with all deployments.	tpl_installation.properties

Preparation of a Properties File

1. Copy the example property file from the table above to <install-media-path>\installer\properties\installation.properties.

   This file contains the default values for a Windows batch installation

   Note On Windows you have to use double backslashes for plm.inst.root, plm.applicationserverdefinition.mw_home, and plm.applicationserverdefinition.domain_root:

   E.g. plm.inst.root=C:\\plm613

   Note On Windows you have to use quadruple backslashes for plm.fileserver.destination:

   E.g. plm.fileserver.destination:C:\\\\fms

2. Enter the values for all properties with value <CHANGETHIS>.

   Note '$' character in property values should be replaced with '$$'.

   e.g. the property value 'pa$$word$' has to be changed to 'pa$$$$word$$'

- plm.databasedefinition.dbhost:

  Host name of the Oracle 11gR2 Database server.

- plm.j2eeappserver.jadehost:

  Host name where the Java Daemon is/will be running.

- plm.j2eeappserver.fmsjadehost:

  Host name where the FMS Java Daemon is/will be running.

- plm.j2eeappserver.adminserver_password:

  Password of the WebLogic administration user (weblogic) for the installation domain.

- plm.application.j2eehost:

  Host name where WebLogic is running (the WebLogic Server host name).

- plm.application.httphost:

  Host name where the Agile e6 Web Client can be reached over HTTP (the WebLogic server hostname).

- plm.application.dbpassword:

  Password of the database user for the application.

- plm.application.dbpassword.wlscrypt:

  Password of the database user for the Business Service application. For information about using a different property while (re)deploying the Business Service, please refer to the Administration guide for Agile e6.1.3.0.

- plm.application.mailrelay:

  To send emails with the business services, define the name of your SMTP mail server. Otherwise use "nn".

- plm.application.mail_auth_user:

  User name if the Mail Authentication for your SMTP mail server is activated. Leave it empty if the plm.application.mail_use_authentication property is set to false.

- plm.application.mail_auth_password:

  Password if the Mail Authentication for your SMTP mail server is activated. If the plm.application.mail_use_authentication property is set to false, leave it empty.

- plm.application.plm_auth_provider_password:

  Password of the WebLogic user PlmAuthenticatorDSUser, which secures the Data Source PlmAuthenticatorDS that is used by the PLM Authentication provider.

- plm.application.adminserver_password:

  Password of the WebLogic administration user (weblogic) for the application domain.

- plm.javadaemon.admpwd:

  Password for the administration interface of the Java Daemon.

- Plm.userdefinition.priv_password:

  Password of the local Windows user which is used by the following service: File Server.

- Plm.userdefinition.unpriv_password:

  Password of the local Windows user which is used by the following services: DTV, Java, FMS Java, and Portmapper.

Note The values for the following password properties have to be entered in clear text:

plm.j2eeappserver.adminserver_password

plm.application.dbpassword.wlscrypt

plm.application.plm_auth_provider_password

plm.application.adminserver_password

Note The values for the following password properties can be encrypted with epkeytool:

plm.application.dbpassword

plm.application.mail_auth_password

plm.userdefinition.priv_password

plm.userdefinition.unpriv_password

For further information about the epkeytool please refer to the Security Guide for Agile e6.1.3.0.

Additionally, check if the remaining values match your environment and change the values if you do not want to use the default values.

On a UNIX operating system, you need to change the following properties, which also contain a directory path:

- plm.inst.root:

  The destination directory for the Agile e6 installation.

- plm.databaseconnection.client_home:

  The path to the existing 32bit Oracle 11gR2 Database client.

- plm.fileserver.destination:

  The destination path for the File Server installation.

- plm.applicationserverdefinition.ora_inventory_unix_home:

  Inventory root directory for the Oracle Universal Installer for WebLogic.

- plm.applicationserverdefinition.ora_inventory_unix_group:

  Name of the group which has write permissions to create/update the Oracle Home Inventory directory for the WebLogic server.

- plm.applicationserverdefinition.mw_home:

  The Oracle Home directory under which the Middleware software is installed.

- plm.applicationserverdefinition.domain_root:

  The root directory where the Agile e6 WebLogic domains should be created.

- plm.wls.installer:

  Full path to the WebLogic installer jar file.

- plm.wls.java.executable.name:

  The Windows name is the default.

  The value for UNIX is commented out below it. Reverse the comments for the two lines.

Execution of the Batch Script

- Windows

  1. Open an Administrative command shell and change to the installer directory:

     ```
     cd <installation-media-path>\installer.
     ```

  2. Set the JAVA_HOME environment variable to the installed Java Development Kit. This has to be a 32Bit Java 7 Development Kit.

```
set JAVA_HOME=C:\Program Files (x86)\Java\jdk7
```

3. Execute the following command in your previously opened command shell:

```
batchinstall.cmd properties\installation.properties
```

- UNIX

1. Open a csh shell and change to the installer directory:

```
cd <install-media-path>/installer
```

2. Set the JAVA_HOME environment variable to the installed Java Development Kit. This has to be a 32Bit Java 7 Development Kit.

```
setenv JAVA_HOME /usr/local/java/jdk7
```

3. Execute the following command in your previously opened csh shell:

```
./batchinstall.csh properties/installation.properties |& tee
installation.log
```

- The batch installation will take about 20 min. A log file, installation.log, is created and will be overwritten every time you will call batchinstall.cmd again.

Note Please make sure that the created installation.properties file is either highly secured, or will be deleted once the installation is done because it contains passwords.

The Resulting Default Agile e6 Environments

Using the default values, the following Agile e6 environments are created:

Windows Services

Following Windows Services are available but not started:

- AgilePLM_DTVDaemon
- AgilePLM_Fileservice
- AgilePLM_JavaDaemon
- AgilePLM_FMS_JavaDaemon
- AgilePLM_Portmapper

WebLogic Domains

During the installation, 2 domains were created. Each domain consists of an AdminServer and an Agile eSeries-01 server.

- The AdminServer is only for the administration of the domain.
- The Agile eSeries-01 servers contain the Agile e6 deployments.

The domains directory, as defined in plm.applicationserverdefinition.domain_root, contains the domains eSeries_domain, and eSeries_domain_plmref.

Ports

E6 AdminClient	8030
Java Daemon	16087
Dtv Daemon	552000610
Fileservice	804257548
“plmref” BusinessService ECI Port	19997
“plmref” WebServices ECI Port	19998
WebLogic eSeries_domain -> AdminServer	7101
WebLogic eSeries_domain -> AdminServer, SSL	7102
WebLogic eSeries_domain ->eSeries-01	7103
WebLogic eSeries_domain ->eSeries-01, SSL	7104
WebLogic eSeries_domain_plmref -> AdminServer	7105
WebLogic eSeries_domain_plmref -> AdminServer, SSL	7106
WebLogic eSeries_domain_plmref -> eSeries-01	7107
WebLogic eSeries_domain_plmref -> eSeries-01, SSL	7108
WebLogic Node Manager	5559
Oracle Database Listener	1521

Links

- Java Client WebStart: https://<servername>:7104/Jacc/jacc.jnlp
- Web Client: https://<servername>:7104/AgilePlmWps
- DaemonAdminServlet: https://<servername>:7104/DaemonAdminServlet
- HTTPSupport: https://<servername>:7104/plm-api-axis/services
- AdminClient: http://<servername>:8030/AdminClient
- WebLogic Admin Console:

  eSeries_domain: https://<servername>:7102/console

eSeries_domain_plmref: https://<servername>:7106/console

DFM Batch Installation

A remote side for DFM (Distributed File Management) usually contains the following components:

- File Server
- FMS Java Daemon
- Web Fileservice
- Web File Server
- AutoVue Components
  - If you are using the central AutoVue installation, it is possible to install the wrapper for the AutoVue viewer deployment on the remote location (JVue.war) for performance reasons.
  - If the AutoVue server is installed on the remote location, the complete AutoVue integration (VueLink.war) has to be deployed.
- Java Client WebStart
  - If the Java Client WebStart is used, it is possible to install the Java Client deployment on the remote location (Jacc.war) for performance reasons.

Requirements

- The latest Tomcat version 7 with Java 7 has to be installed on the DFM site(s) server. The Tomcat 7 core binary distribution can be downloaded from http://tomcat.apache.org/

  Note Only on Windows the Tomcat 7 32bit version is supported by the batch installation.

  - The Metro web service stack has to be installed too if File Web Services are used. The Metro web service stack zip archive can be downloaded from http://metro.java.net/

  Note Tomcat 7 and the Metro web service stack can be installed with the batch installation for the FMS services.

- A fully extracted Agile e6 package from the Oracle Software Delivery Cloud on the DFM site(s) server.

Installation Components

The batchinstall script with the DFM option will install the following components:

- Tomcat with the Metro web service stack
  - On Windows it will create a service entry for starting the Tomcat
  - Deployments for:
    - Java Client WebStart
    - Wrapper for the AutoVue viewer
    - AutoVue integration
    - Web Fileservice
    - Streaming Fileservice
- FMS Java Daemon
- File Server

Installation

To perform the DFM Batch Client installation, please execute the DFM properties file as mentioned in section Batch Modes.

Chapter 6

Oracle Database Prerequisites

Note This chapter describes prerequisites for installing the Oracle Database 11g R2 (11.2.0.3) client and server on all supported operating systems.

Windows

Create the directories/drives for the distribution of the data files depending on the number of disks prepared for the Oracle installation.

For instance, if you have prepared 3 disks -

- E:\
- F:\
- H:\

The drive letters E:\, F:\, and H:\ are just examples. Subdirectories will be created later in these directories by either:

- Manual installation
  - Installing Oracle Database Server
  - Installing Oracle Database Client
- Automatic installation
  - Installation with the Agile e6 Installer

UNIX

Setting Up an Oracle Operating System User

Several operating system groups and users might have to be installed, depending on:

- If Oracle software is installed on this system the first time
- Installed products

For complete information on how to set up an Oracle Operating System User, refer to the Oracle Database Software documentation.

To create an Oracle account:

1. Create the dba group for the machine on which Oracle is being installed:

   ```
   groupadd -g 502 dba
   ```

   Note On AIX you have to use the following command instead:

   mkgroup id=502 dba

2. Create an Oracle user “oracle” with the following parameter and execute the following command.

   - Home directory ”/opt/oracle”

     Note Is also value for ORACLE_BASE. The directory must be created first.

   - Login shell ”/bin/csh”
   - Member of the group "dba"

   ```
   useradd -u 502 -g dba –d /opt/oracle –s /bin/csh oracle
   ```

3. Log into Oracle and create the subdirectories:

- /opt/oracle/bin
- /opt/oracle/product
- /opt/oracle/product/11.2

Note If ORACLE_BASE is not set to /opt/oracle, the above mentioned subdirectories have to be created in the designated directory.

4. Create the directory, links, and mount points for distribution of the data files, depending on the number of disks prepared for the Oracle installation.

   For instance, if you have prepared 3 disks:

   - …/data1
   - …/data2
   - …/data3

   The names data1, data2, and data3 are just examples.

Subdirectories will be created later in these directories by the database:

- Manual installation
  - Installing Oracle Database Server
  - Installing Oracle Database Client
- Automatic installation
  - Installation with the Agile e6 Installer

Note For recommended disk layout, please check the Hardware Sizing Guide for Agile e6.1.3.0.

Setting Up the Shell Environment Variables for Oracle 11g

To set up the shell environment variables, do the following:

1. Download and uncompress the Oracle Agile Engineering Data Management Application (Release e6.1.3.0) from the Oracle Software Delivery Cloud website.

   Under Oracle Agile Applications > Oracle Agile Engineering Data Management (Release e6.1.3.0) Media Pack.

2. Copy the script csh_ORA11.2 from the folder addon/db/unix/scripts to /opt/oracle/bin

   If ORACLE_BASE is not set to /opt/oracle, open the script with an editor and change the value for ORACLE_BASE. Then source the script to set the environmental variables.

   ```
   chmod 754 csh_ORA11.2
   source $HOME/csh_ORA11.2
   ```

3. Set the file creation permissions with the “umask” command:

   ```
   umask 022
   ```

4. Verify the environment.

5. Log off and log in as the Oracle user to ensure all environment settings are active.

6. Type env | sort in the UNIX prompt to view all environment variables.

Software Item	Requirements
DISPLAY	Set it to the machine name and monitor the station from which you are connecting to the server machine (setenv DISPLAY hostname: 0.0).
LD_LIBRARY_PATH SHLIB_PATH (HP-UX)	Required for Oracle products using shared libraries. Must include: ▫ $ORACLE_HOME/lib.

Software Item	Requirements
LIBPATH (AIX)	
ORACLE_BASE	Not required, but recommended as part of an OFA-compliant installation.
ORACLE_HOME	Must be set to the directory where the Oracle software will be installed.
ORACLE_SID	Specifies the instance name, or SID of the Oracle Server. Must be unique for Oracle instances running on the same machine. Oracle Corporation recommends using four characters or less.
ORACLE_TERM	Required by all character mode and Motif mode Oracle products. 386 386x 386u 386s dgd2 dgd4 hftc hft hpterm 3151 ncd220 sun sun5 vt100 vt220 wy50 wy150 xsun xsun5.
ORA_NLS10	Required when creating a database with characters set other than US7ASCII. Set to $ORACLE_HOME/nls/data
PATH	The search path must include: $ORACLE_HOME/bin, /bin, /usr/bin, and /usr/local/bin.
TMPDIR	A directory with free space where the Oracle account has write permission. The default location on UNIX is /usr/tmp.

Free Up Disk Space in the /tmp Directory

The Oracle Installer needs some temporary disk space during the installation in /tmp. Check the required space in tmp directory under Hardware Requirements for the relevant operating system.

Note For disk space requirements check the specific Quick Installation Guide Section provided with the Operating System.

To determine the amount of free disk space available in the /tmp directory, enter the following command in a command shell:

```
df /tmp
```

If the space available in the /tmp directory is less than required, complete one of the following steps:

1. Delete unnecessary files from the /tmp directory to achieve the required disk space.
2. Set the TEMP and TMPDIR environment variables when setting the Oracle user's environment (described later).

3. Extend the file system that contains the /tmp directory. If necessary, contact your system administrator for information about extending file systems.

If you have determined that the /tmp directory had insufficient free disk space when checking the hardware requirements, enter the following commands to set the TEMP and TMPDIR environment variables. Specify a directory on a file system with sufficient free disk space.

- In a Bourne, Bash, or Korn shell:

```
TEMP=/directory
TMPDIR=/directory
export TEMP TMPDIR
```

- In a command shell:

```
setenv TEMP /directory
setenv TMPDIR /directory
```

Copying the Database Start and Stop Scripts for the Oracle Server

Copy the start and stop scripts from folder addon/db/unix/scripts to the directory /opt/oracle/bin.

- start_plm61
- stop_ plm61
- stop_ plm61_immediate
- stop_ plm61_transactional

Chapter 7

Installing Oracle Database Server

Note This chapter describes the manual installation of the Oracle Database 11g Release 2 (11.2.0.3) Server. Keep in mind that on UNIX only the manual installation can be performed. For the installation on a Windows operating system with the Agile e6 Installer see chapter Installation with the Agile e6 Installer.

1. Start the Oracle Database installation.

- Windows

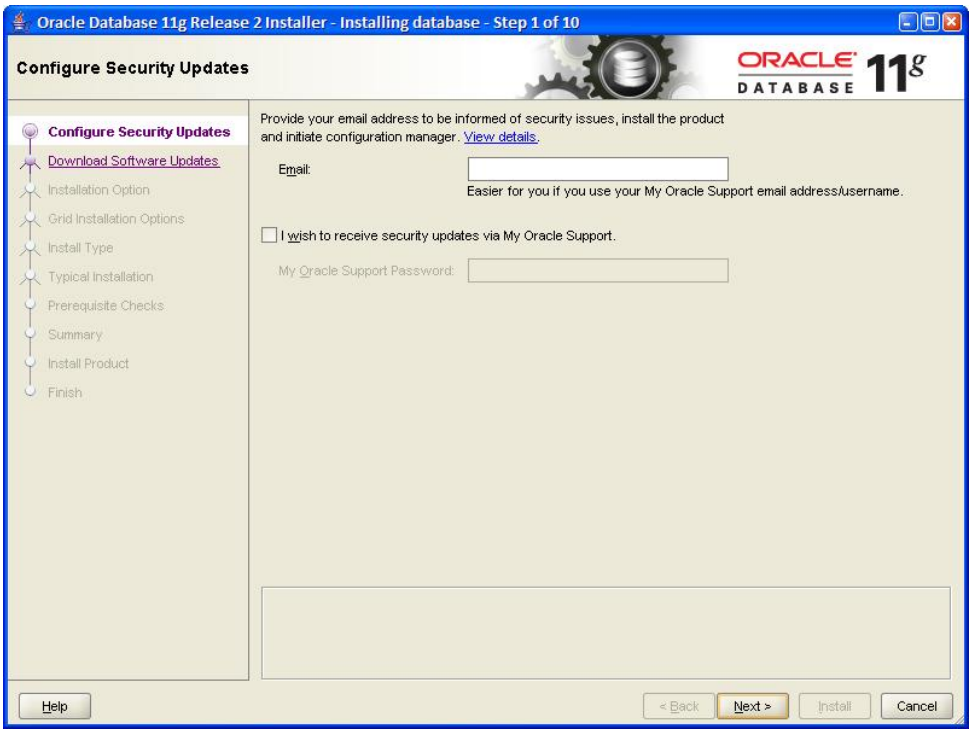
  Run setup.exe from the downloaded Oracle Installation Media.

- UNIX

  Log in as the oracle user and navigate to the database directory. Start the Oracle Universal Installer with the following command:

  ```
  ./runInstaller
  ```

2. The Configure Security Updates screen is opened.



You can opt for notifications about security issues and security updates from My Oracle Support.

1. To receive notifications about the security issues via email, enter your email address in the Email text field.

2. To receive security updates:

    1. Enter the email address you have provided when registering with My Oracle Support.

    2. Select the I wish to receive security updates via My Oracle Support option and enter your My Oracle Support password.

Note If you wish not to receive security updates, do not check the I wish to receive security updates via My Oracle Support check box.

By default, the I wish to receive security updates... option is not selected. If your company's policy requires such updates, then this option should be selected.

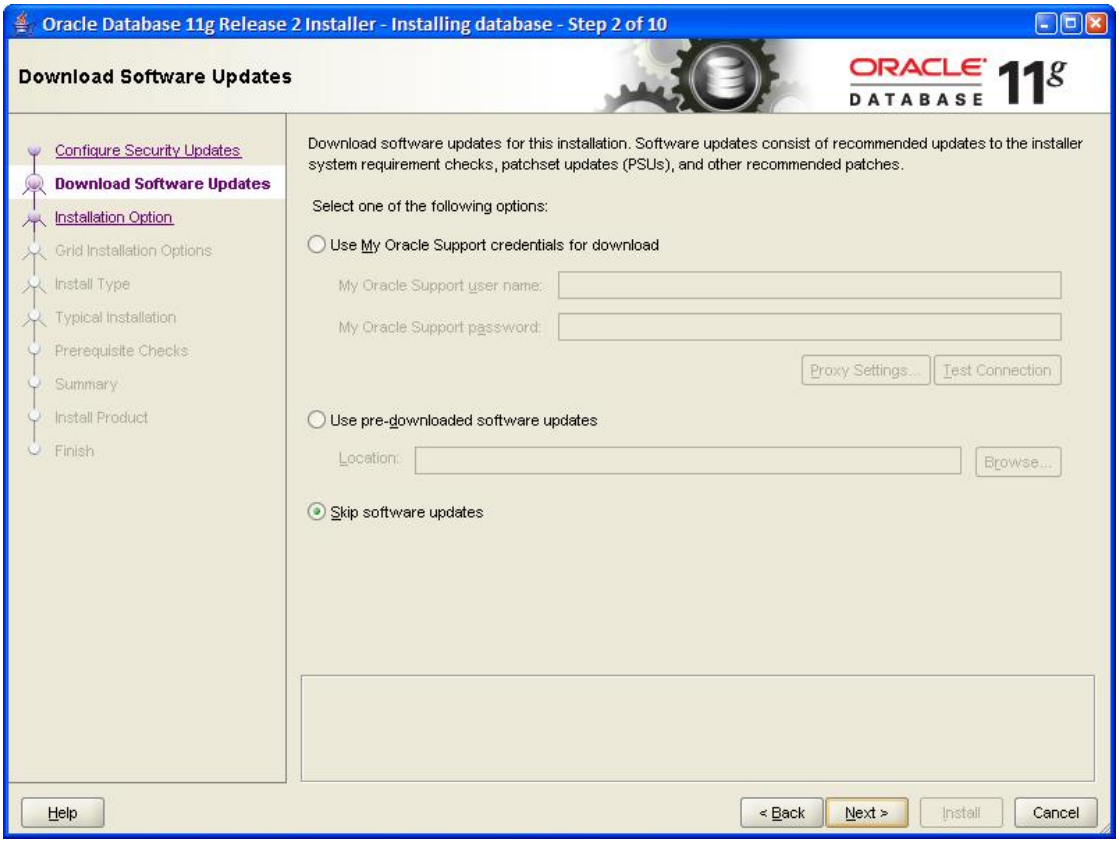
3. Click Next.

    The My Oracle Support Username/Email Address Not Specified warning appears.



4. Click Yes.

    The Download Software Updates screen is opened.



3. To download software updates for this installation, select Use My Oracle Support credentials for download.

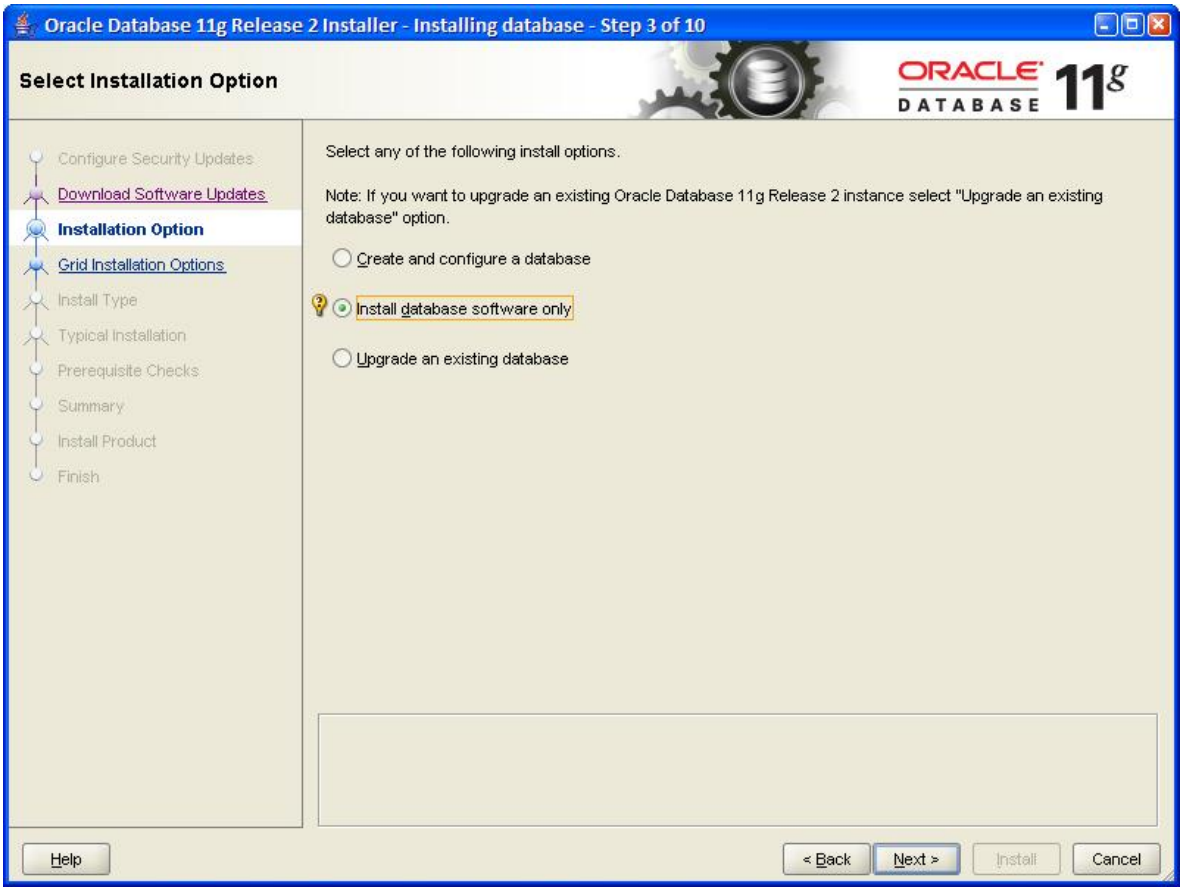
4. Enter your My Oracle Support user name.

5. Enter My Oracle Support password.

   If you wish not to download software updates for this installation, select Skip software updates.

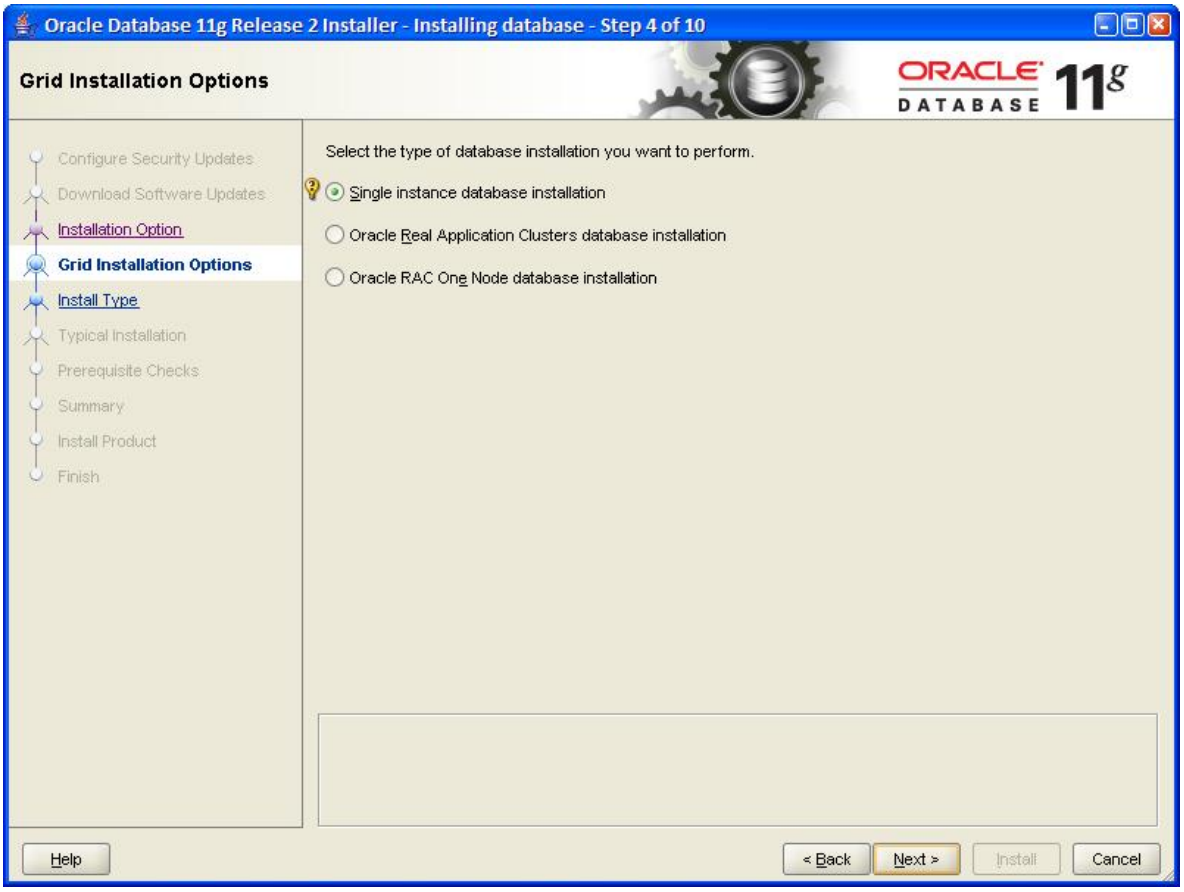
6. Click Next.

   The Select Installation Option screen is opened.



7. Select Install database software only and click Next.

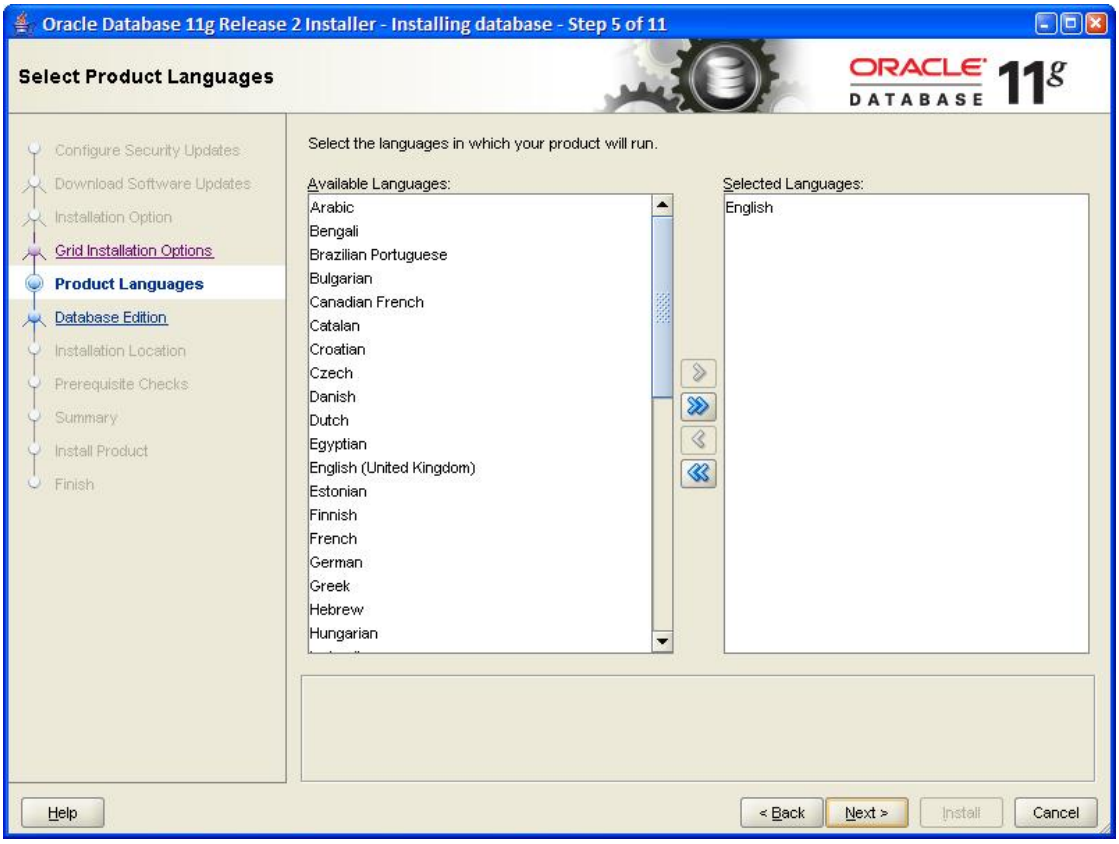
   The Grid Installation Options screen is opened.



8. Select Single instance database installation and click Next.

Note The Real Application Cluster database installation is not a subject of this guide.

The Select Product Languages screen is opened.



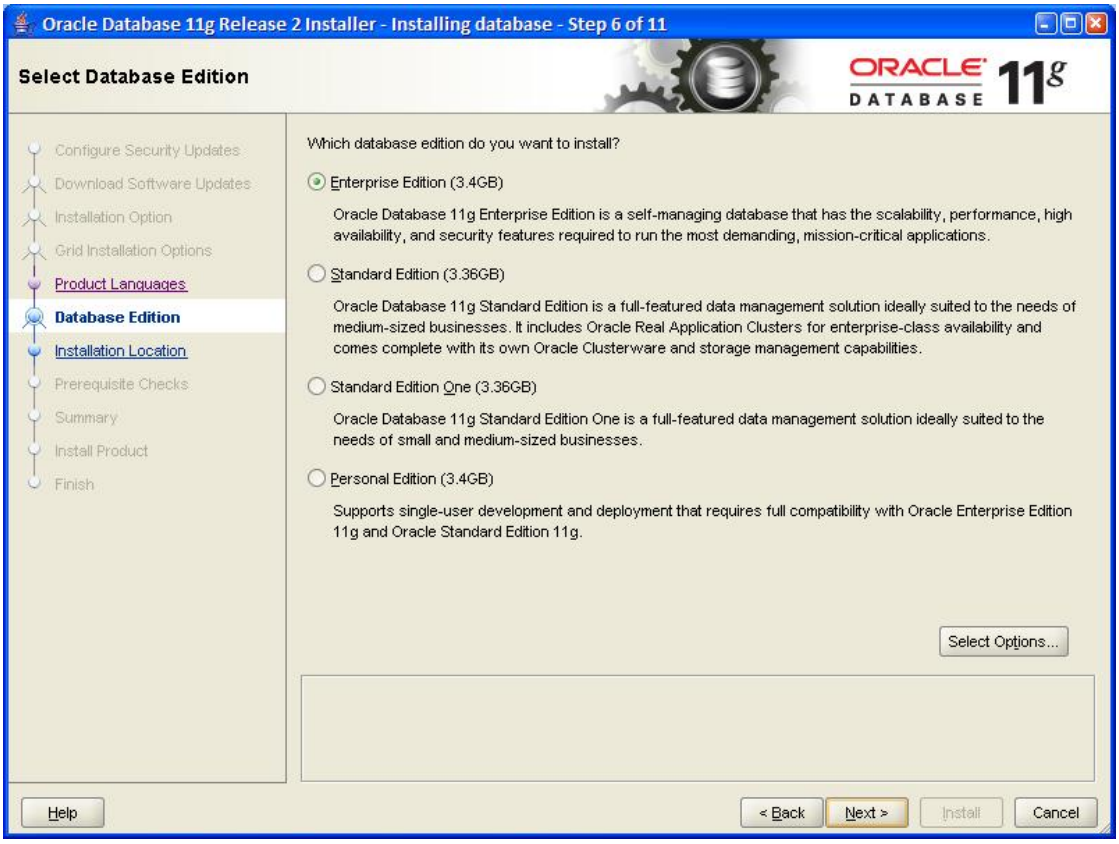
9. Select English as the product language.

   If you want the Oracle database to operate in any other language select the required language from the list of the product languages.

   Note The scope of translation for a given component may differ from language to language. For example, some translations may include all the user interface texts, while some may include only the error messages without any help file.

10. Click Next.

    The Select Database Edition screen is opened.



The Enterprise Edition is set as the default database edition.

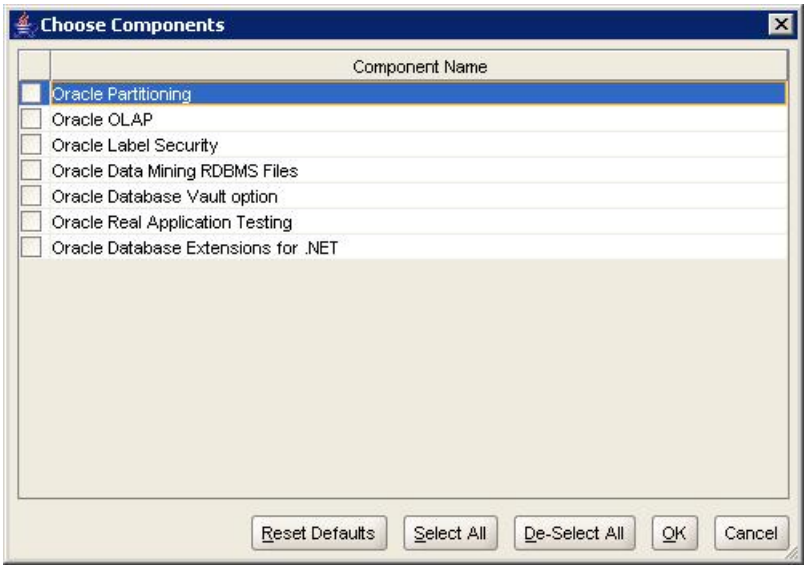
Note Do not select the Enterprise Edition if you have the Standard Edition license.

If you select the Standard Edition, no further action is required and you can proceed with the installation, step 13.

Select only those options for which you have a license.

11. If you select Enterprise Edition, you are required to click the Select Options... button to select further options.

    The Choose Components screen is opened.



12. Select the required components and click OK
13. In the Select Database Edition screen click the Next button to proceed with the installation.

    The Specify Installation Location screen is opened.



14. Specify the installation location for the Oracle Base directory and the Software Location which is the Oracle Home directory (default: $ORACLE_BASE/product/11.2).

    If the Oracle base location is the same as the user home directory, the following warning message appears:

    [INS-32008] Oracle base location can’t be the same as the user home directory.

    Note If possible, avoid having the same directory for the Oracle Base and the Oracle home directory.

    If the selected Oracle home location is outside of Oracle base, the following warning message appears:

    [INS-32018] The selected Oracle home is outside of Oracle base.

    If possible avoid having the Oracle home outside of Oracle base.

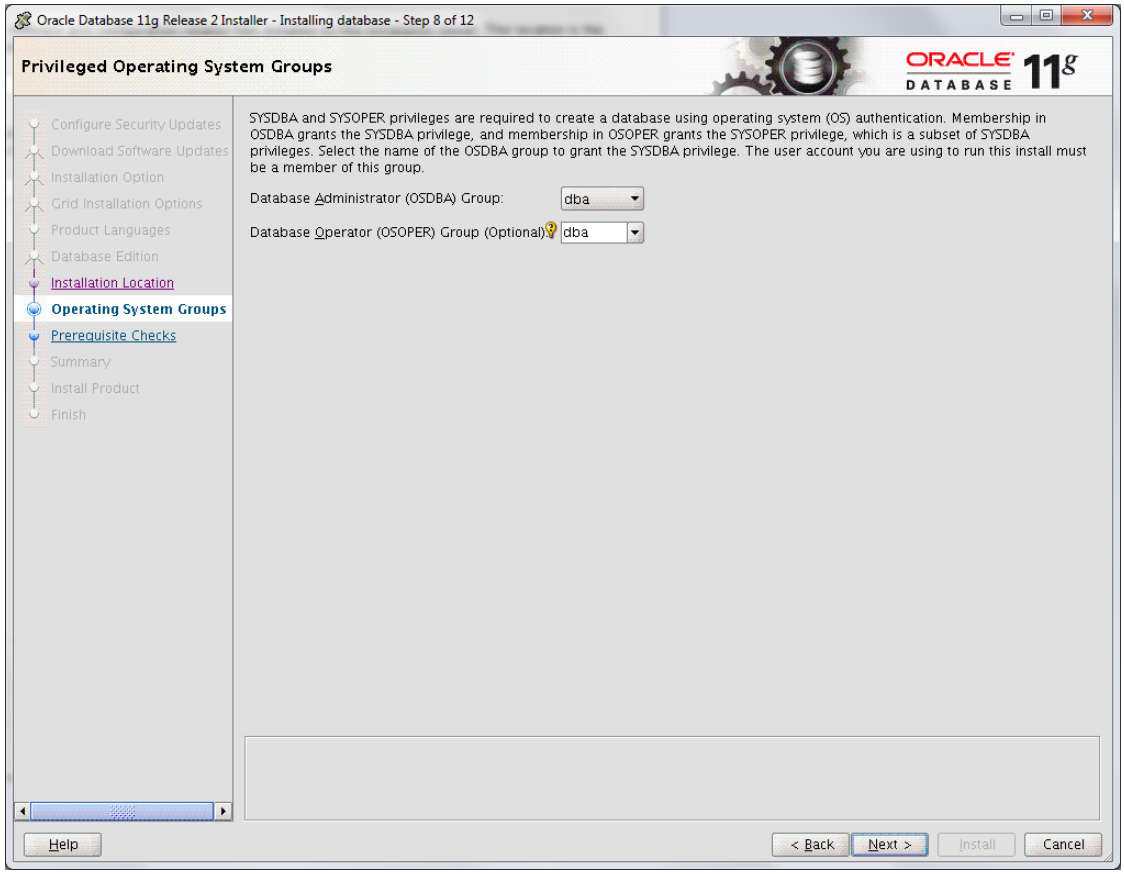
15. To override the warning, click Yes.

    The Privileged Operating System Groups screen is opened.

    Note UNIX:

    The “Privileged Operating System Group” screen will only appear on a UNIX operating system.

    Note The Privileged Operating System Groups screen is ONLY opened if this is the first Oracle installation on your machine, NOT the first Oracle 11g version 11.2.0.3 installation.

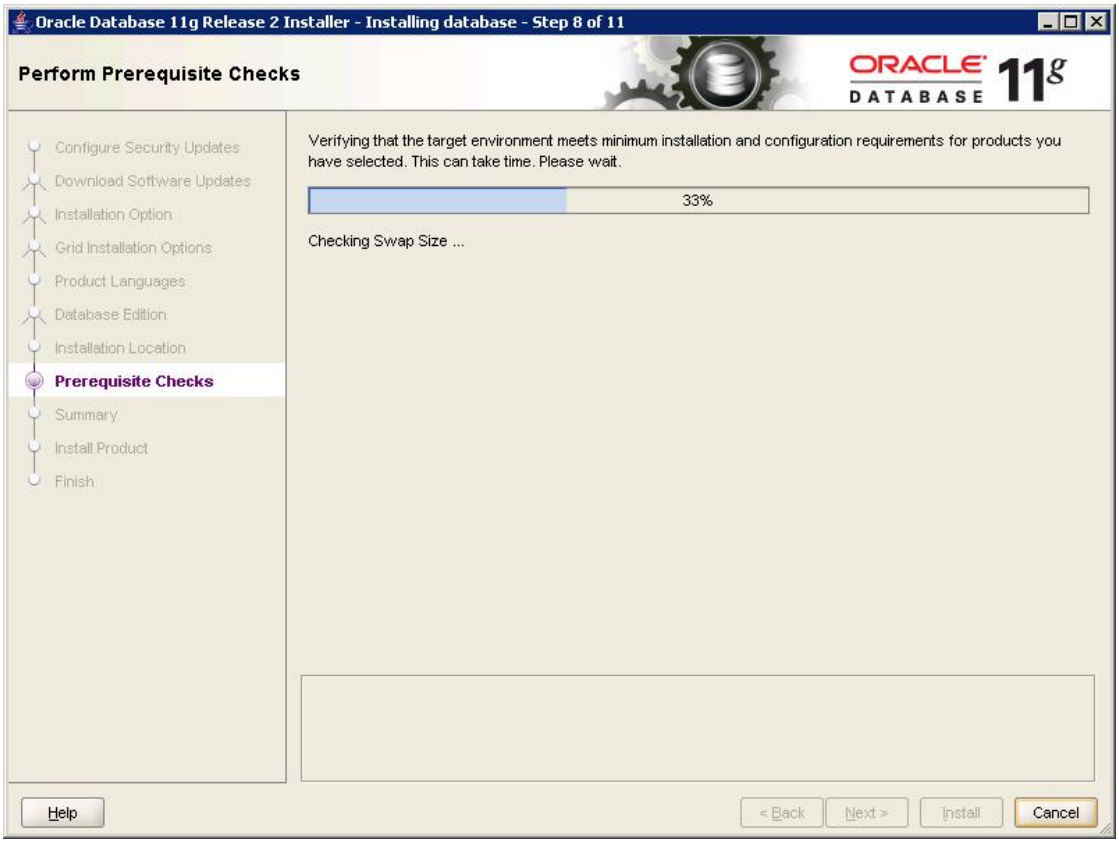


16. Select the Database Administrator Group from the drop down menu, and optionally, select or specify the Database Operator Group from the drop down menu (members have write permission to the Inventory Directory).

Note You can also accept the default values.

17. Click Next.

    The Perform Prerequisites Checks screen is opened, displaying the verification process.



Upon completion of the checks, the installer displays the results for review.

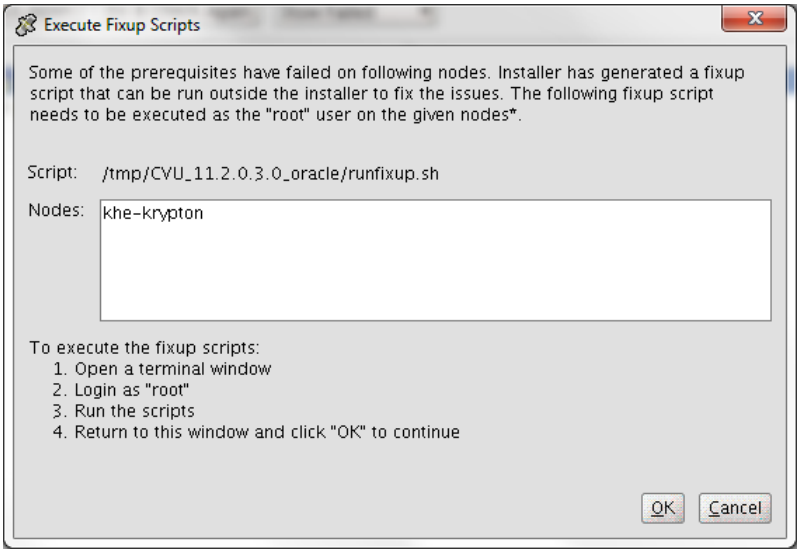
If any of the requirements are not met, the installer displays a list of the failed checks and their actual and expected values.

Note UNIX:

The “Fix & Check Again” button and the function to create a Fixup Script will only appear on a UNIX operating system.

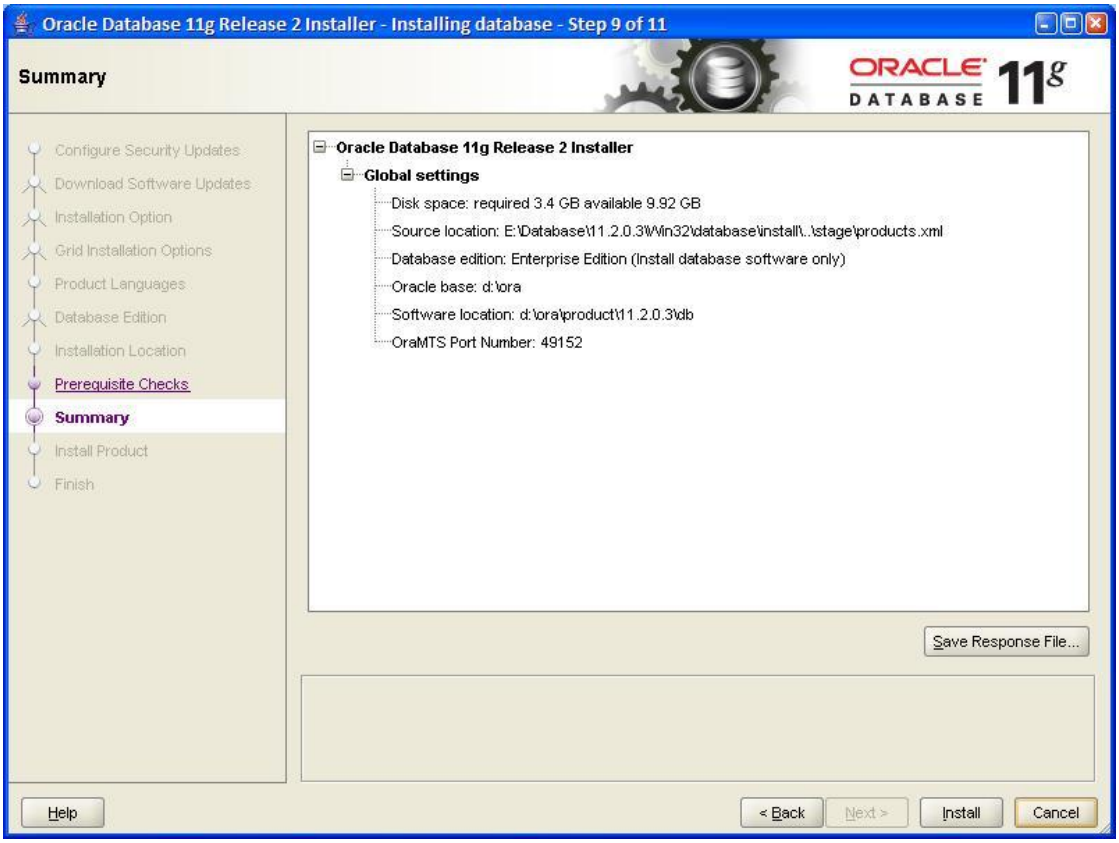
You may click the Fix & Check Again button to generate a fixup script.

The nodes on which the prerequisites failed are listed in the Execute Fixup Script window. You can run the fixup script as a root user to complete the required pre-installation steps.



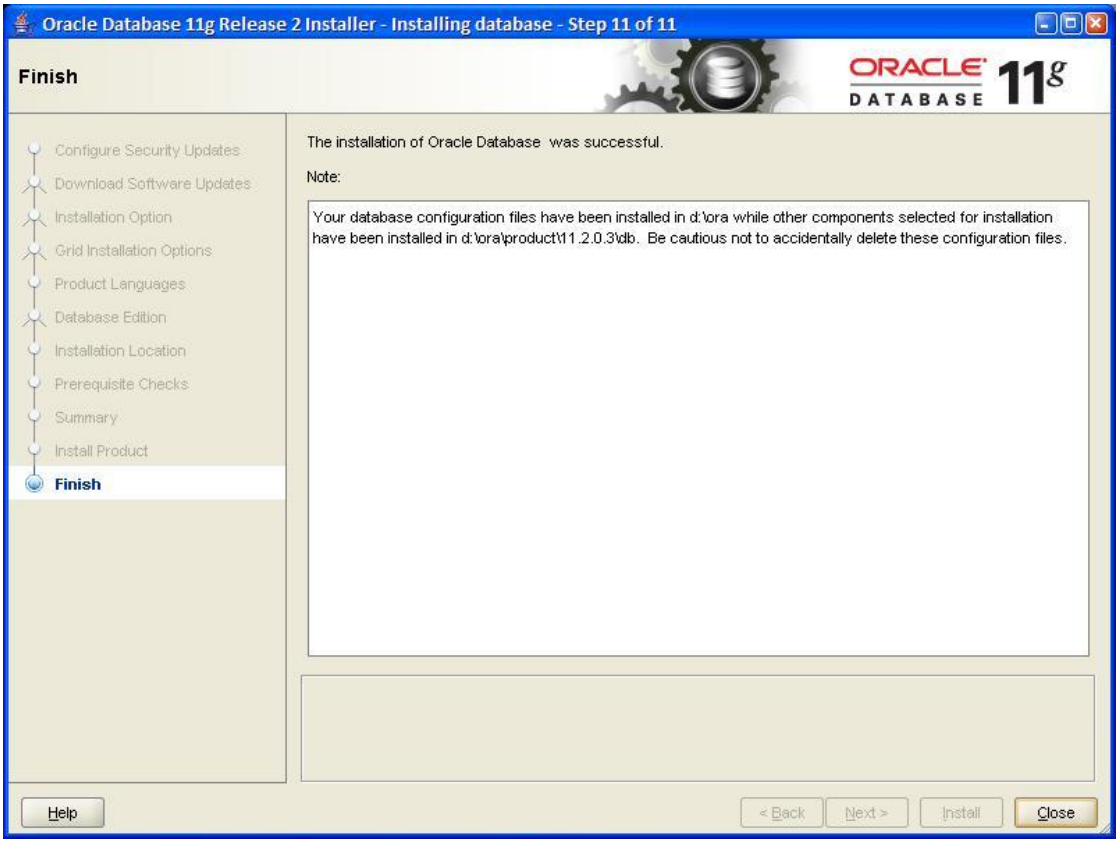
Using the fixup scripts does not ensure that all the prerequisites for installing the Oracle database are satisfied. You still have to verify that all the pre-installation requirements are met to ensure a successful installation.

When all of the minimum requirements are met, a Summary screen is opened.



18. In the Summary screen, review the global settings you have chosen and click Install to start the installation.

    When the installation completes, the Finish screen is opened.



19. Click Close to exit.

Chapter 8

Installing Oracle Database Client

Note This chapter describes the manual installation of the Oracle Database 11g Release 2 (11.2.0.3) client. Keep in mind that on UNIX only the manual installation can be performed. For the automatic installation on a Windows operating system refer to the chapter Installation with the Agile e6 Installer.

Note The 32bit Oracle client must be installed on the same machine where Agile e6.1.3.0 is installed.

- Windows

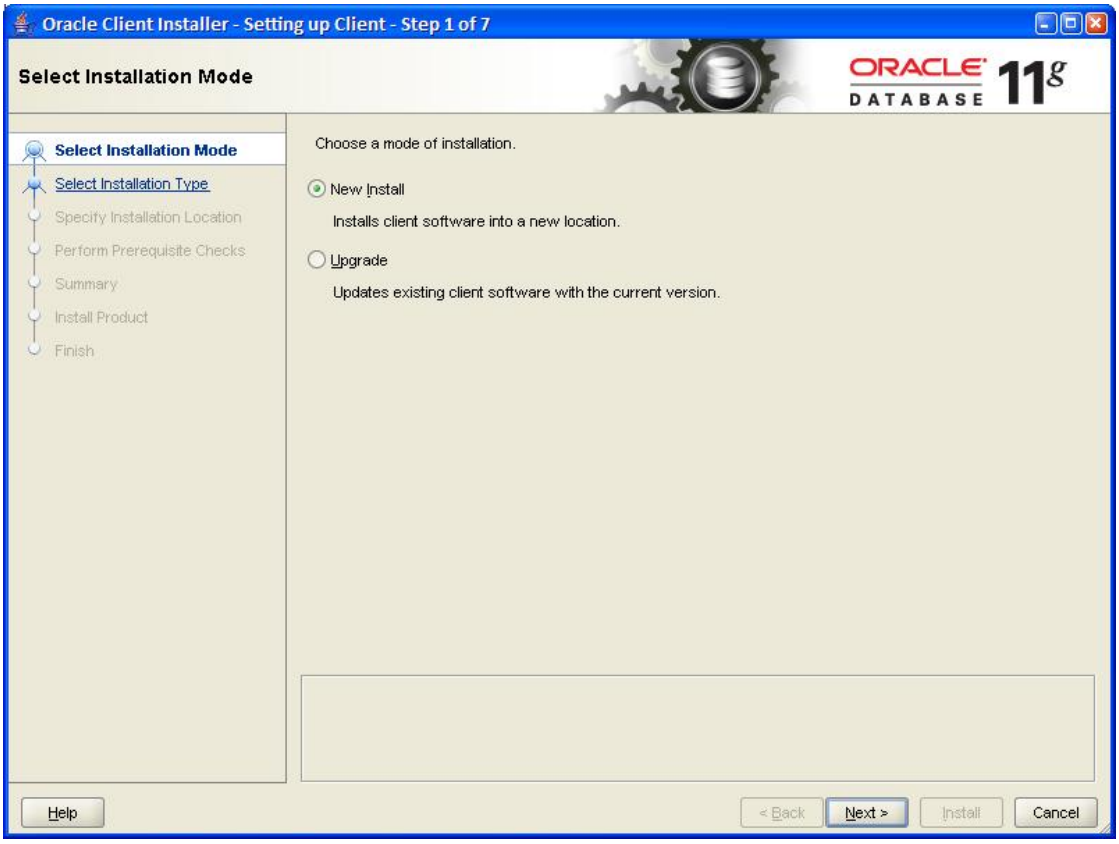
1. Run setup.exe from the downloaded Oracle Installation Media.

- UNIX

1. Log in as the Oracle user and start the Oracle Universal Installer with the following command:

   ```
   ./runInstaller
   ```

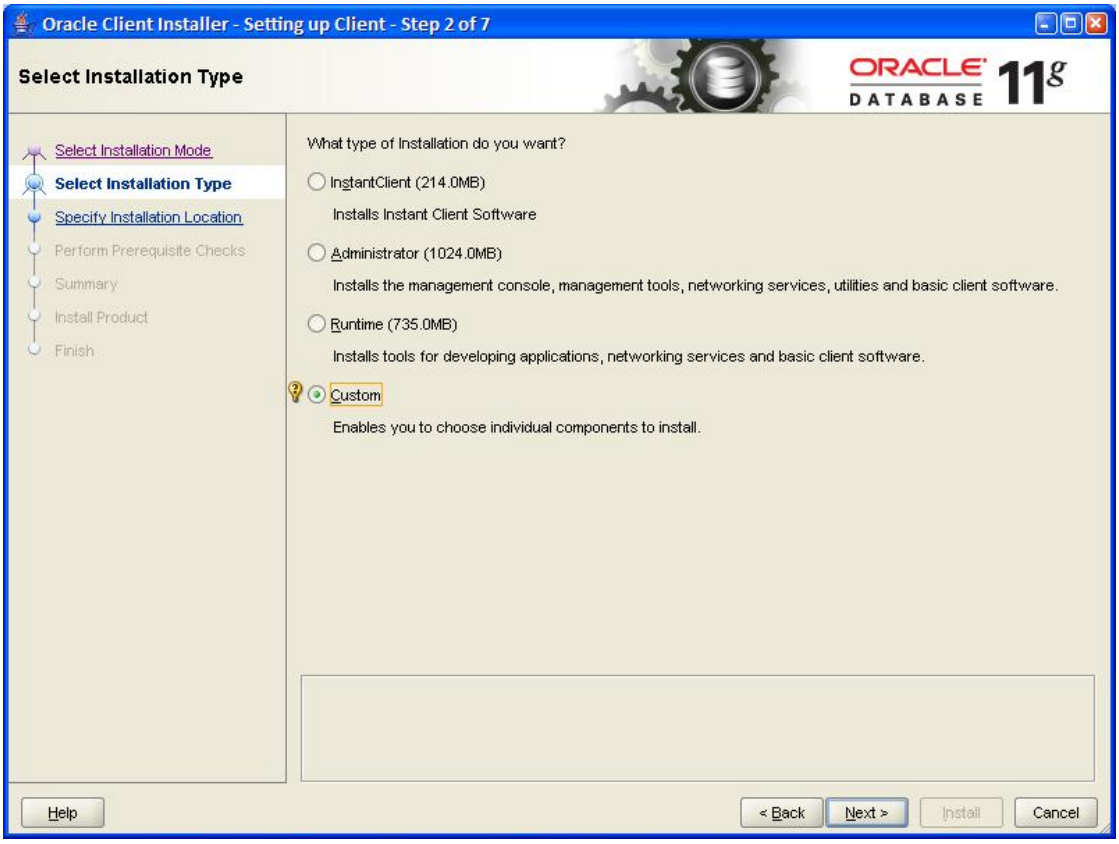
   The Select Installation Mode screen is opened.



2. Select New Install and click Next.

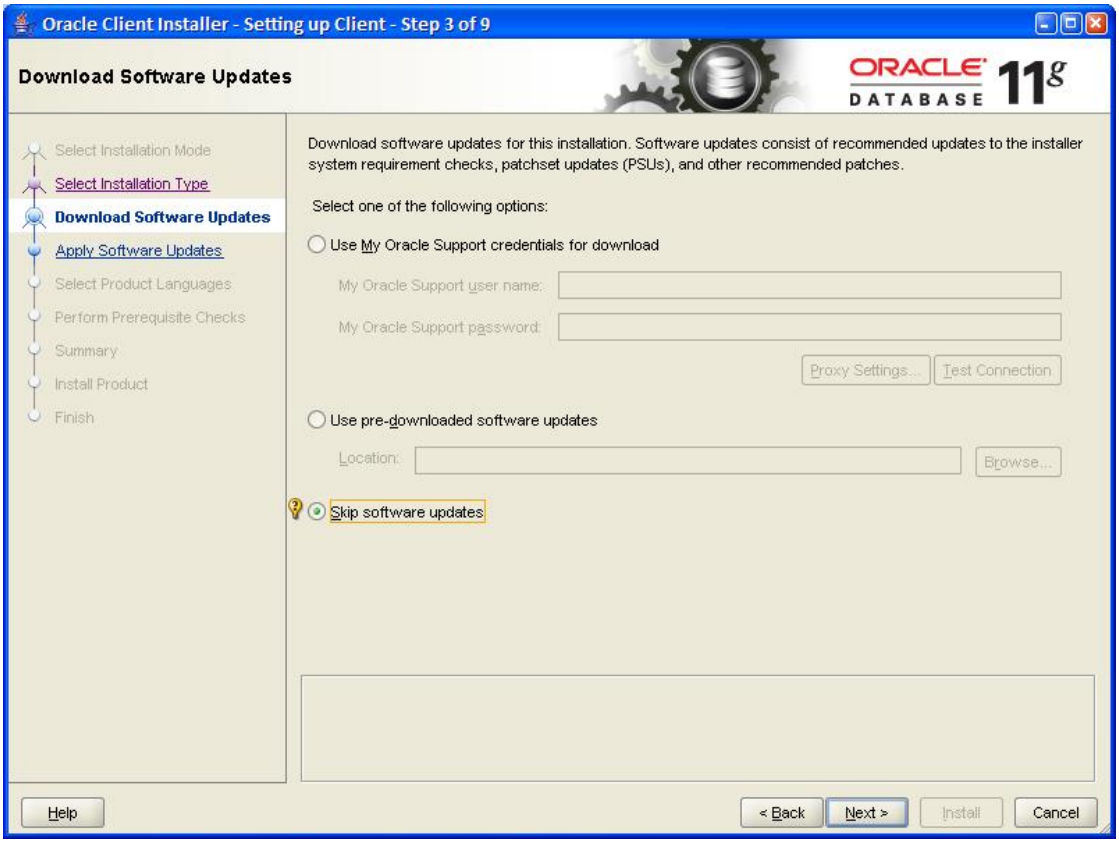
   New Install is the default selection.

   The Select Installation Type screen is opened.



3. Select Custom and click Next.

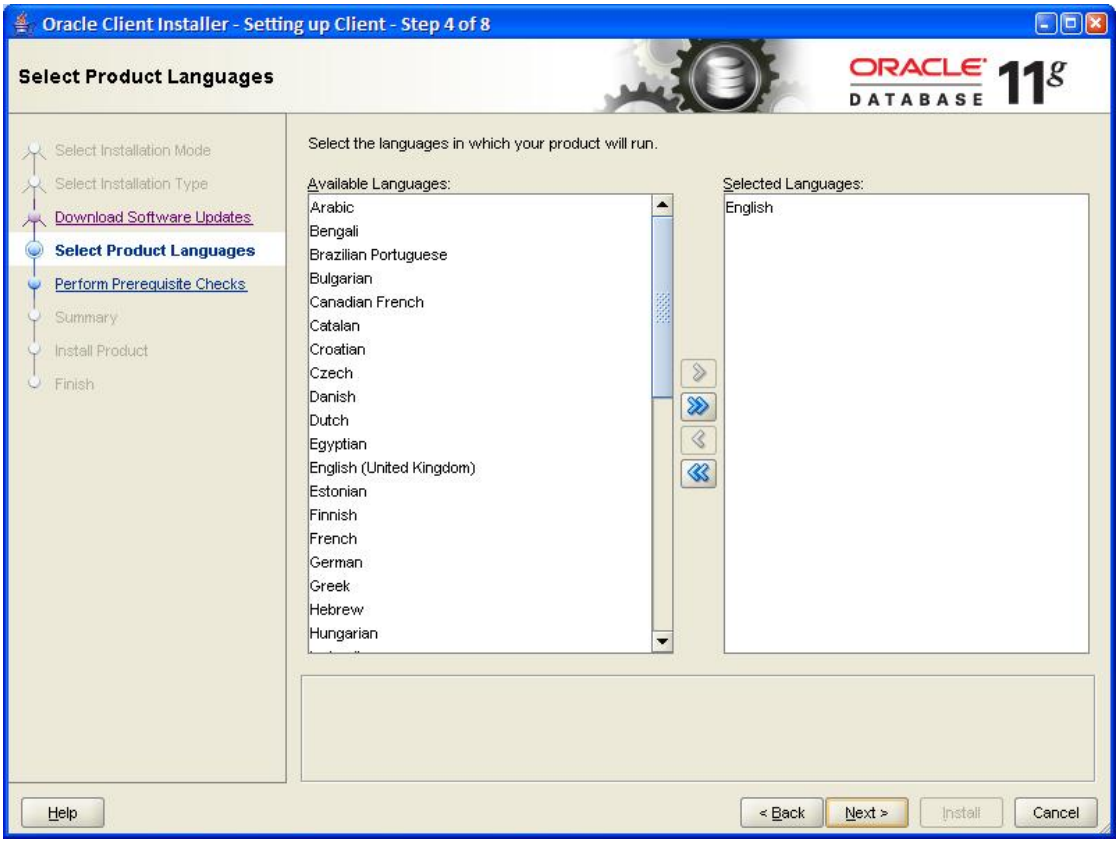
   The Download Software Updates screen is opened.



4. Select Skip software updates and click Next.

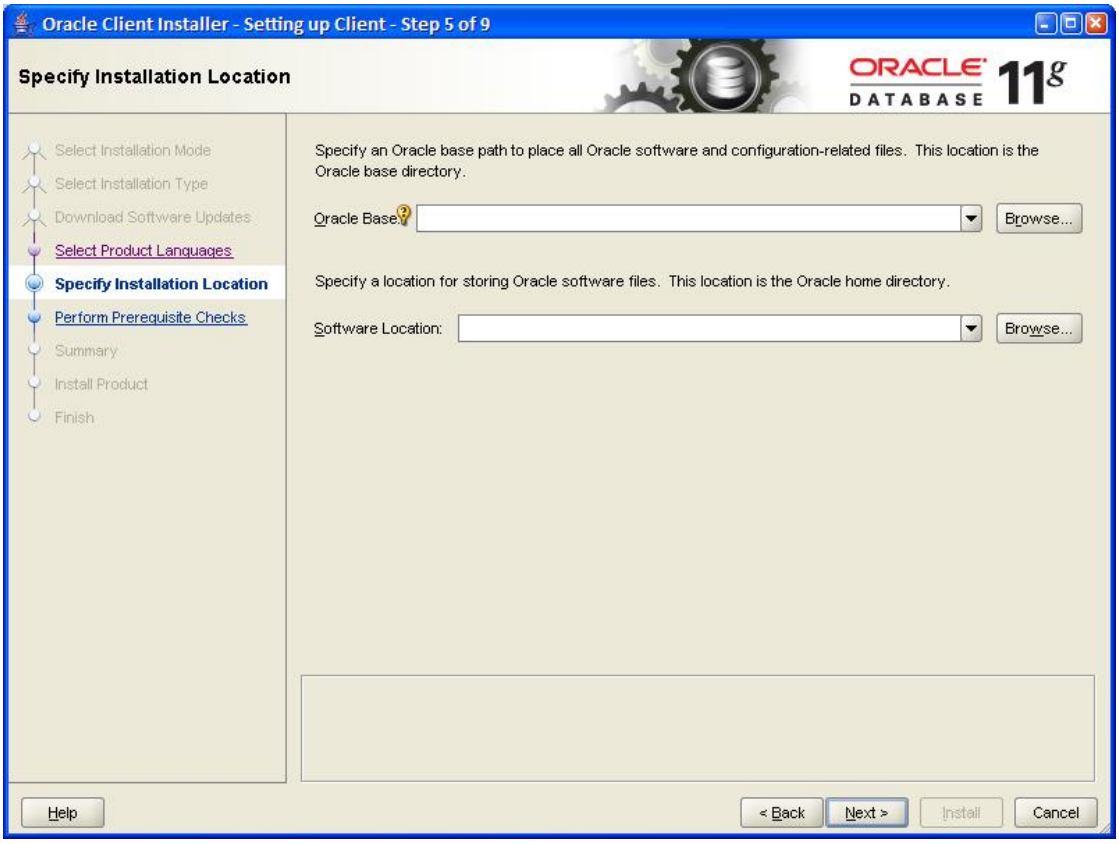
   Skip software updates is the default selection.

   The Select Product Languages screen is opened.



5. Select English as the product language and click Next.

   The Specify Installation Location screen is opened.



6. Specify the installation location for the Oracle base directory and the Oracle home directory.

7. Click Next.

- If the Oracle base location is the same as the user home directory, the following warning message appears:

  [INS-32008] Oracle base location can't be the same as the user home directory.

  Note If possible, avoid having the same directory for the Oracle Base and the Oracle home directory.

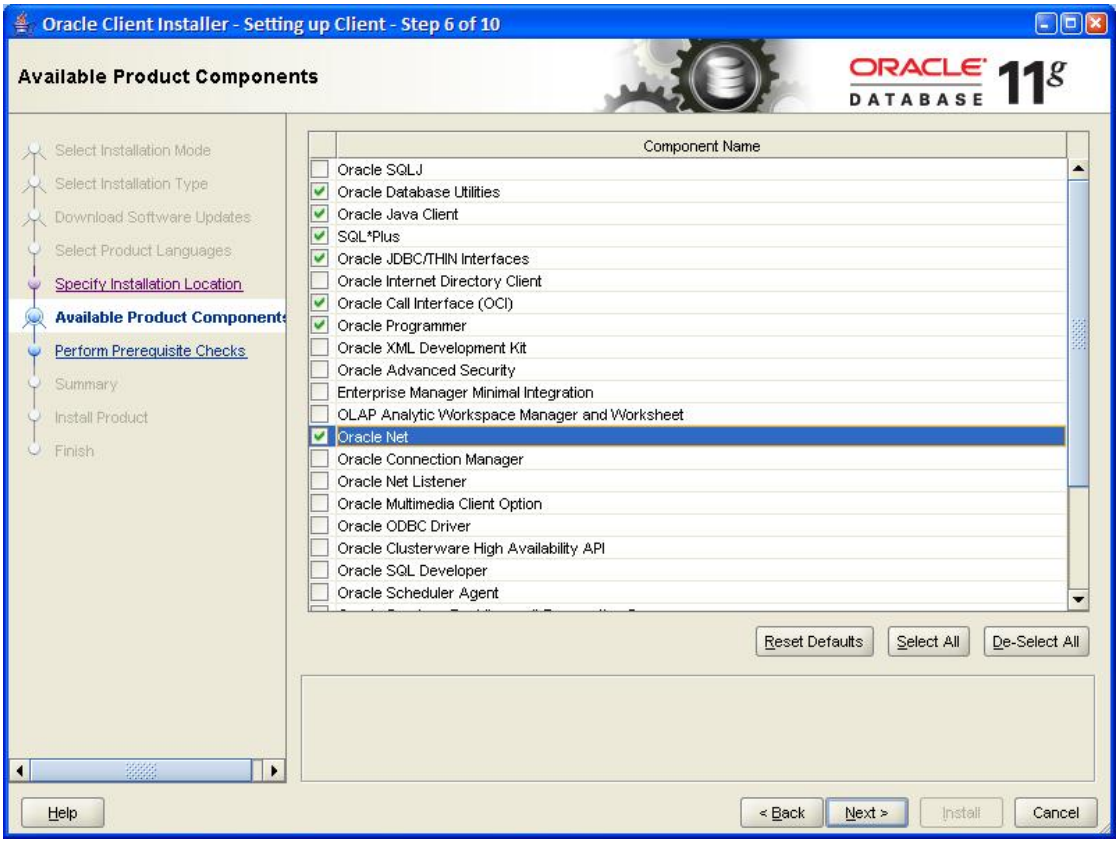
- If the selected Oracle home location is outside of Oracle base, the following warning message appears:

  [INS-32018] The selected Oracle home is outside of Oracle base.

  Note If possible, avoid having the Oracle home outside of Oracle base.

8. Click Yes to override the warning.

   The Available Product Components screen is opened.

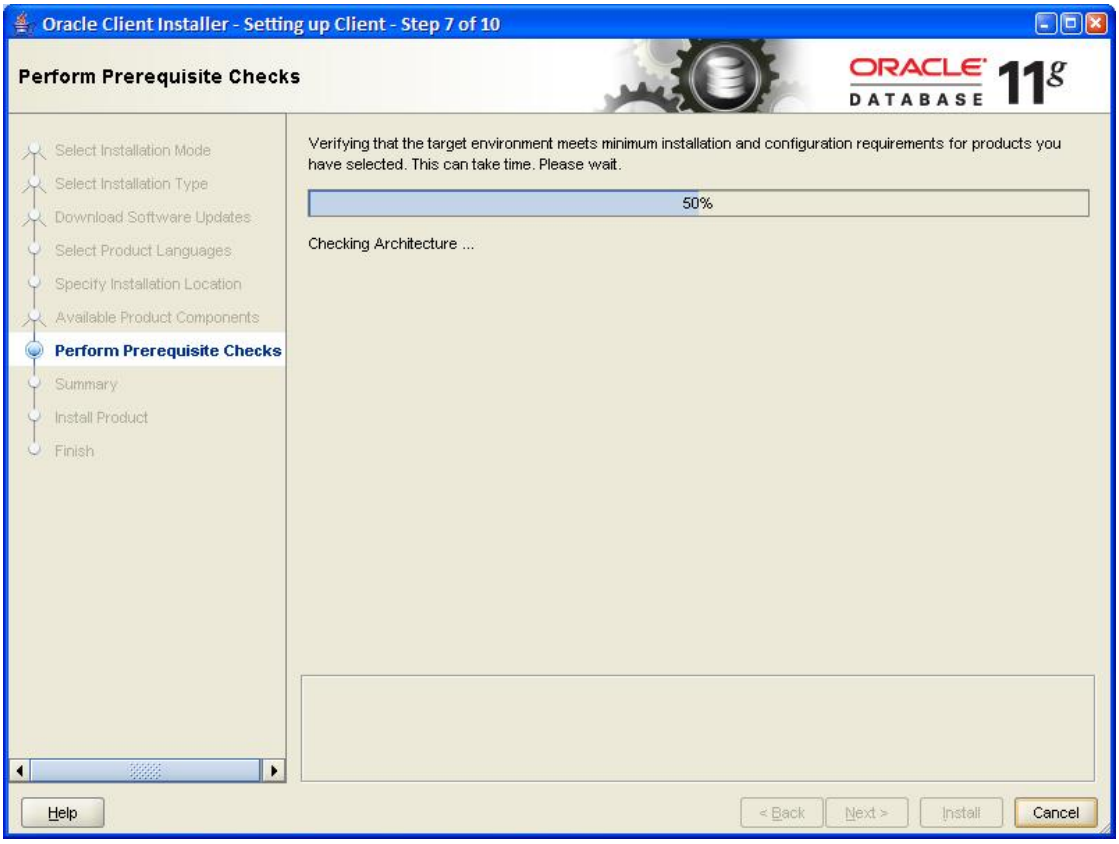


9. Select the following components to install (as shown in the screen above):

   - Oracle Database Utilities
   - Oracle Java Client
   - SQL*Plus
   - Oracle JDBC/THIN Interfaces
   - Oracle Call Interface (OCI)
   - Oracle Programmer
   - Oracle Net

10. Click Next.

    The Perform Prerequisites Checks screen is opened, displaying the verification process.



Upon completion of the checks, the installer displays the results for review.

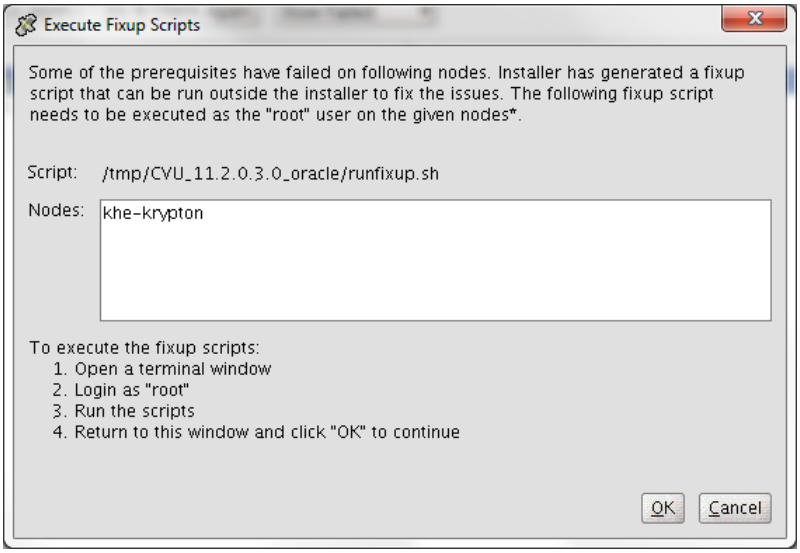
If any of the requirements are not met, the installer displays a list of the failed checks and their actual and expected values.

Note UNIX:

The “Fix & Check Again” button and the function to create a Fixup Script will only appear on a UNIX operating system.

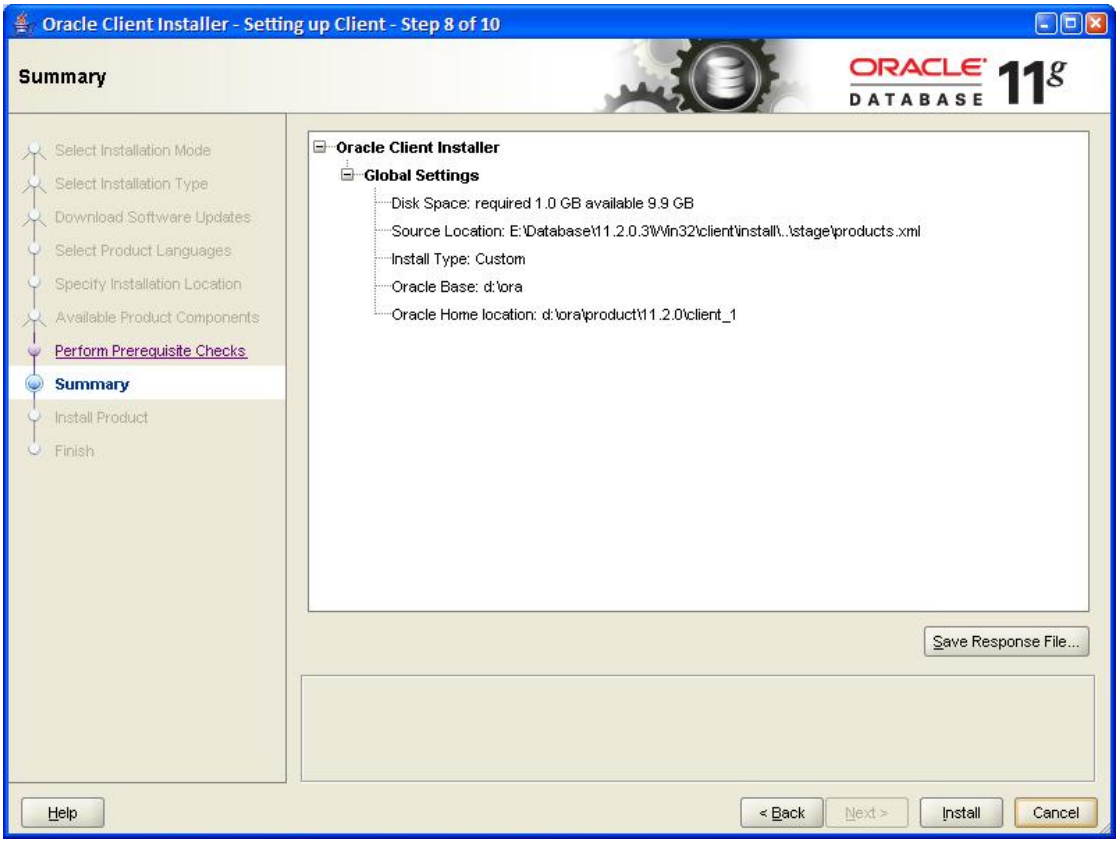
You may click the Fix & Check Again button to generate a fixup script.

The nodes on which the prerequisites failed are listed in the Execute Fixup Script window. You can run the fixup script as a root user to complete the required pre-installation steps.



Using the fixup scripts does not ensure that all the prerequisites for installing the Oracle database are satisfied. You must still verify that all the pre-installation requirements are met to ensure a successful installation.

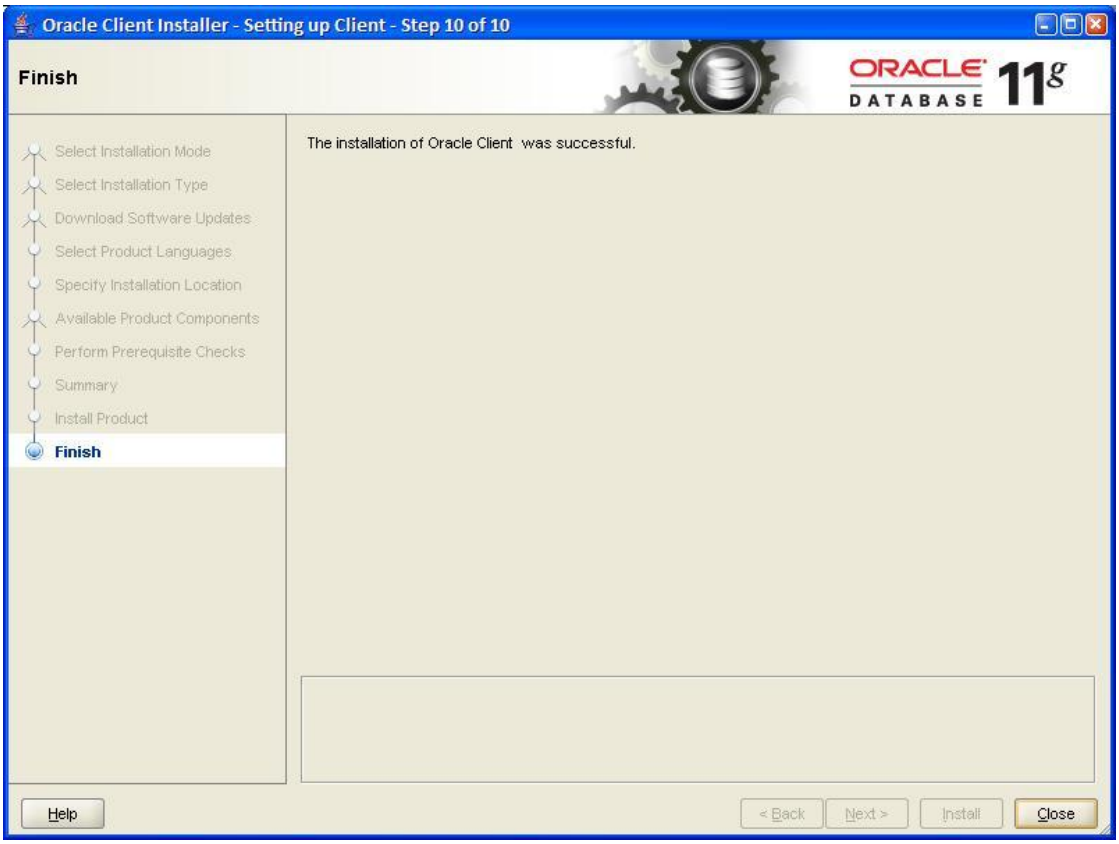
When all of the minimum requirements are met, a Summary screen is opened.



11. In the Summary window, review the global settings you have chosen and click Install to start the installation.

    The installation takes some time to complete.

    Upon completion, the Finish screen is opened.



12. Click Close to exit the Oracle Client Installer.

Chapter 9

Post-Installation Modifications for the Oracle Database

Creating the Database

Note This chapter describes the manual creation of the Database schema. Keep in mind that on UNIX, only the manual creation can be performed. For the automatic creation on a Windows operating system see chapter Installation with the Agile e6 Installer.

The database is created by using the Database Configuration Assistant (DBCA) templates. DBCA templates include database options, initialization parameters, and storage information for data files, table spaces, control files and redo logs.

Five different templates are predefined to meet different requirements according to the purpose, size, and number of users of the Agile e6.1.3.0 database installation.

For additional information on significant database parameters and settings of each template, refer to the Hardware Sizing Guide for Agile e6.1.3.0.

Note In all the examples given in this chapter, the name of the Oracle Home for Oracle database installation is OraDb11g_home1. You may use a different name in your installation.

1. Refer to the downloaded media pack - Oracle Agile Engineering Data Management Application (Release e6.1.3.0).

- Windows

    1. All the templates are in the addon\db\windows\templates directory.

    2. Copy the required DBCA template file (e.g. plm_prod_medium.dbt) to the %ORACLE_HOME%\assistants\dbca\templates directory.

    3. Start the Oracle Database Configuration Assistant from the Windows Start menu.

        Start > All Programs > Oracle - OraDb11g_home1 > Configuration and Migration Tools > Database Configuration Assistant.

- UNIX

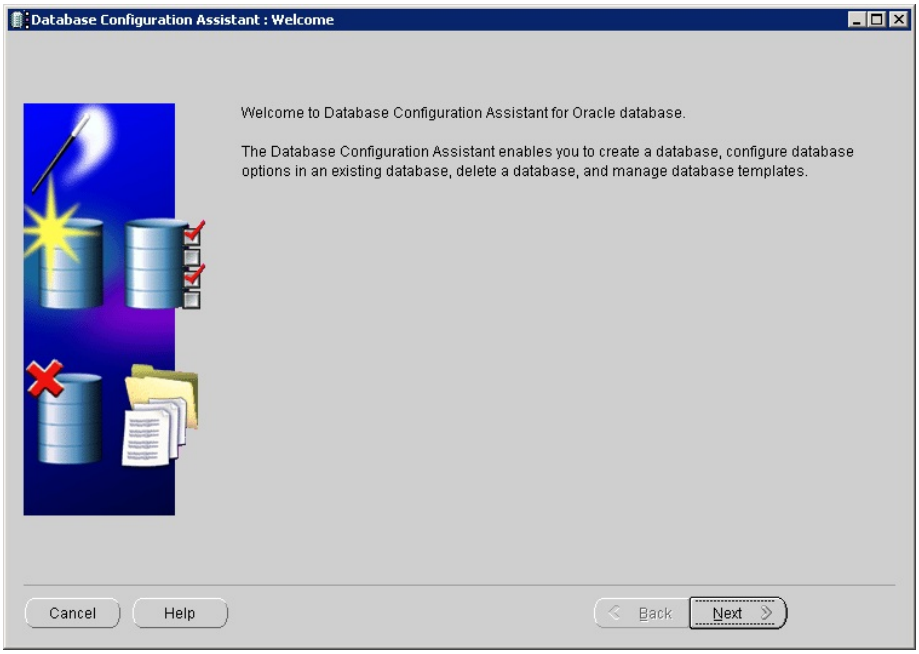
    1. All the templates are in the addon/db/unix/templates directory.

2. Copy the required DBCA template file (e.g. plm_prod_medium.dbt) to the $ORACLE_HOME/assistants/dbca/templates directory.

3. Start the Oracle Database Configuration Assistant

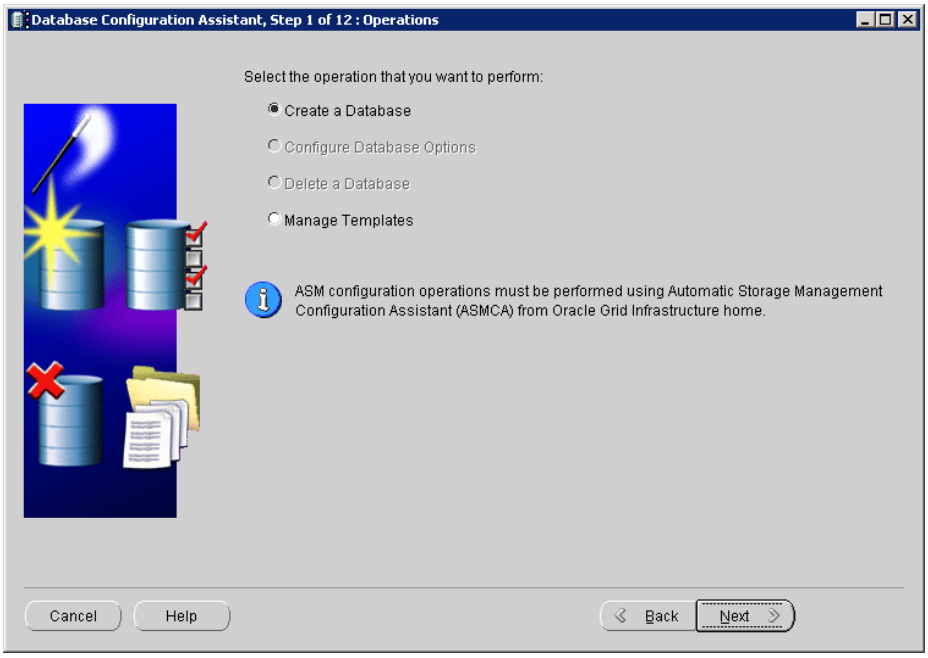
   ```
   $ORACLE_HOME/bin/dbca
   ```

   The Database Configuration Assistant: Welcome screen is opened.



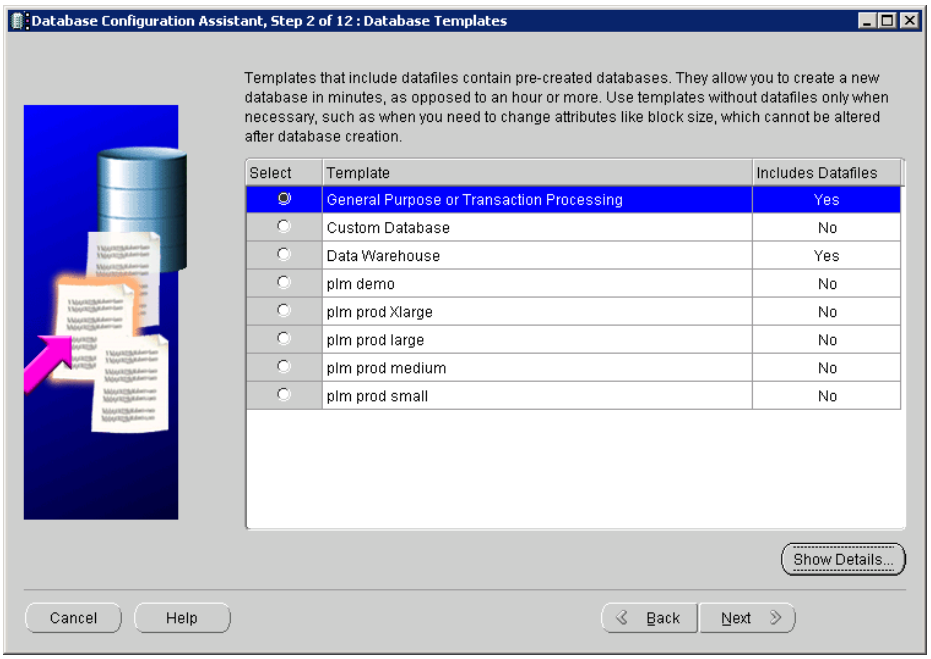
2. Click Next to start the database configuration.

   The Database Configuration Assistant – Operations screen is opened.



3. Select Create a Database and click Next.

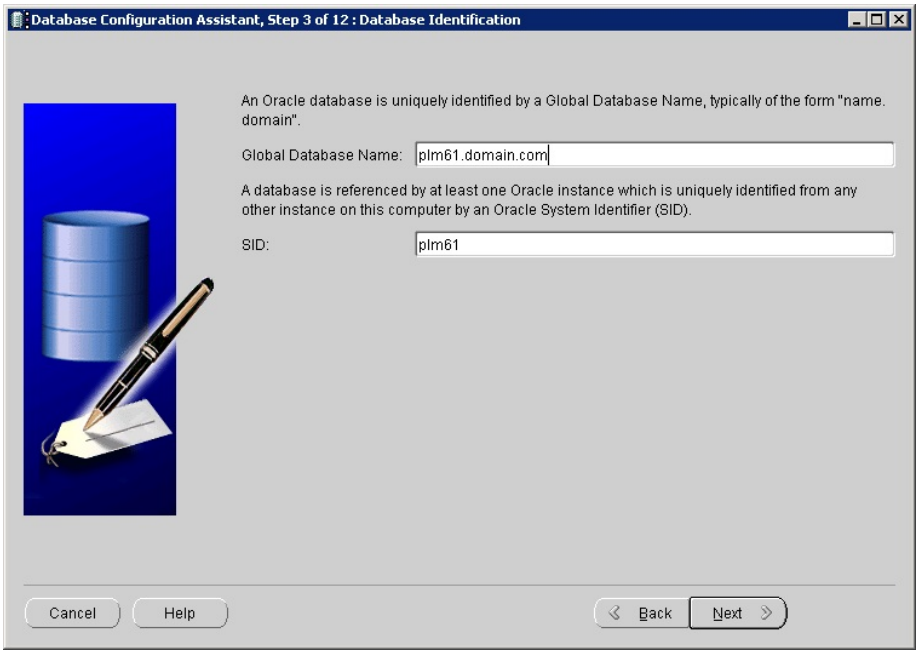
   The Database Configuration Assistant – Database Templates screen is opened.



   The template that you have chosen and copied in sub-step 2 is available in this list.

4. Select the template you want to use and click Next.

   The Database Configuration Assistant – Database Identification screen is opened.



5. Enter the Global database name and database SID.

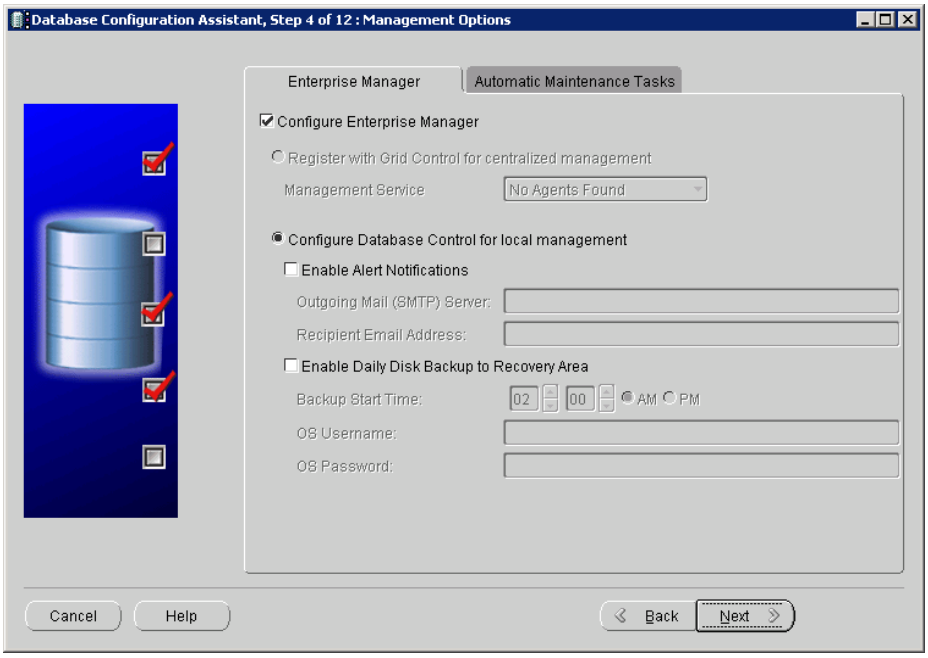
   The default SID is plm61. It is recommended to set the global database name to SID.<domain name>; for example, plm61.mydomain.com. But it can be left the same as the database SID.

   Note Do not leave this field blank.

6. Click Next.

   The Database Configuration Assistant – Management Options screen is opened.

   Here, you can centrally manage the Oracle databases using Oracle Enterprise Manager Database Control.

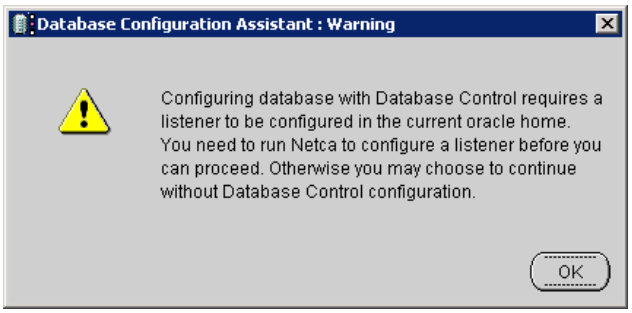


7. Select the option Configure Enterprise Manager.

8. Open the tab Automatic Maintenance Tasks.

Note If a configured listener for this Oracle Home already exists, the following warning message will be skipped and by clicking on the tab Automatic Maintenance Tasks, you will see the screen from step 17. In this case, continue with step 18.

A message is displayed that a listener has to be configured first - prior to configuring the database by DBCA.



9. Click OK to close the warning message.

- Windows

  1. Start the Oracle Net Configuration Assistant.

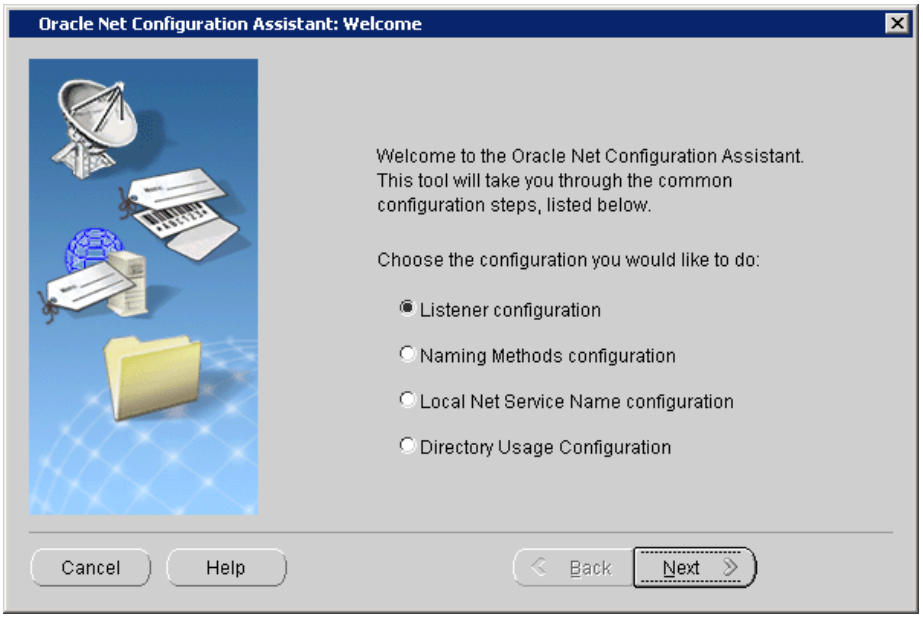
  2. Click Start > All Programs > Oracle - OraDb11g_home1 > Configuration and Migration Tools > Net Configuration Assistant.

- UNIX

    1. Open a new terminal and start the Oracle Net Services Configuration Tool with the following command:

        ```
        $ORACLE_HOME/bin/netca
        ```

10. The Oracle Net configuration Assistant – Welcome screen is opened.



11. Select the Listener configuration and click Next.

    The Oracle Net configuration Assistant – Listener Configuration, Listener screen is opened.



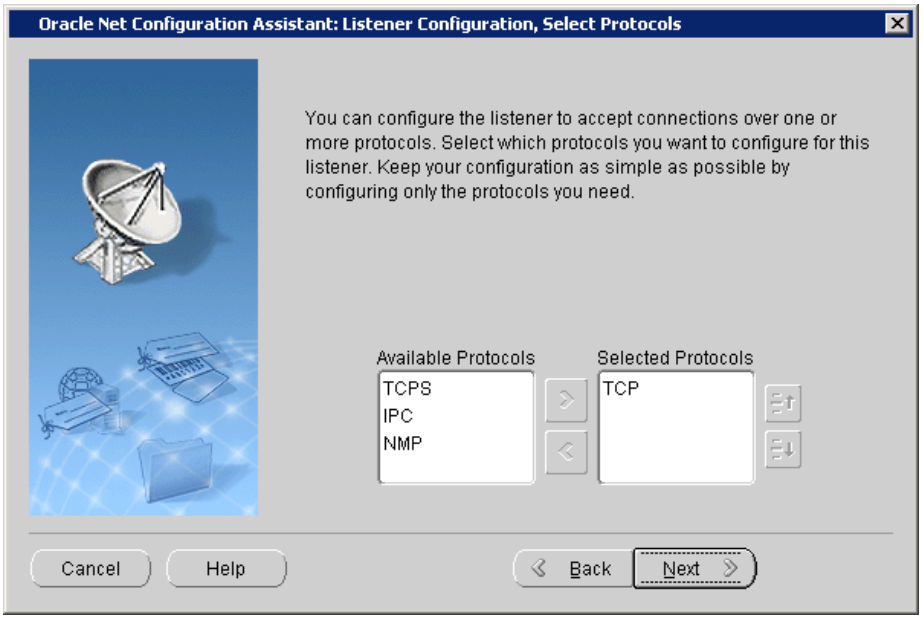
12. Select Add and click Next.

    The Oracle Net configuration Assistant – Listener Configuration, Listener Name screen is opened.



13. Enter the Listener name to be created and click Next.

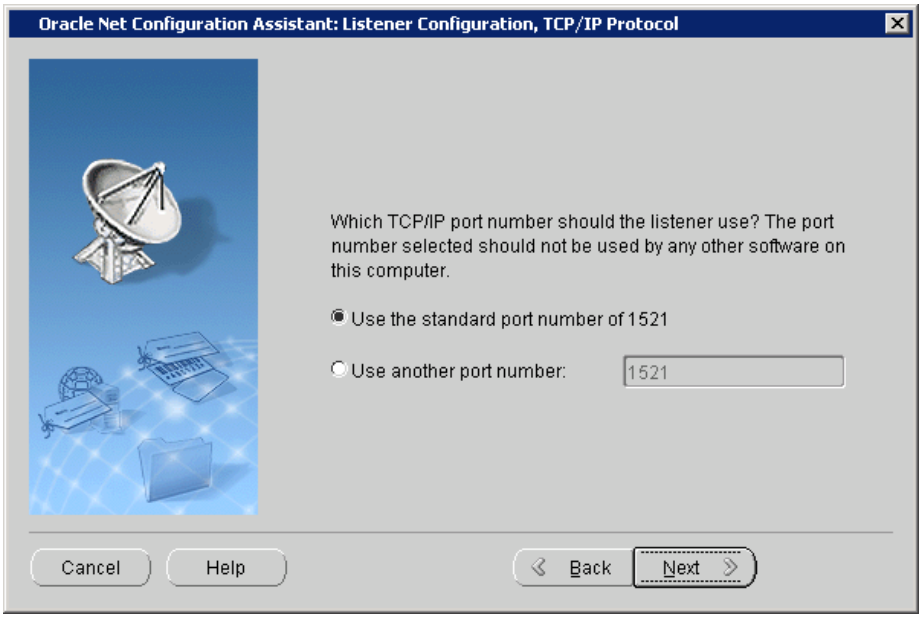
    The Oracle Net configuration Assistant – Listener Configuration, Select Protocols screen is opened.



14. Make sure TCP is listed in the Selected Protocols list and click Next.

    TCP is the default selection.

    The Oracle Net configuration Assistant – Listener Configuration, TCP/IP Protocol screen is opened.



15. Select the standard port number of 1521.

    You may choose any port number that has not been used yet.

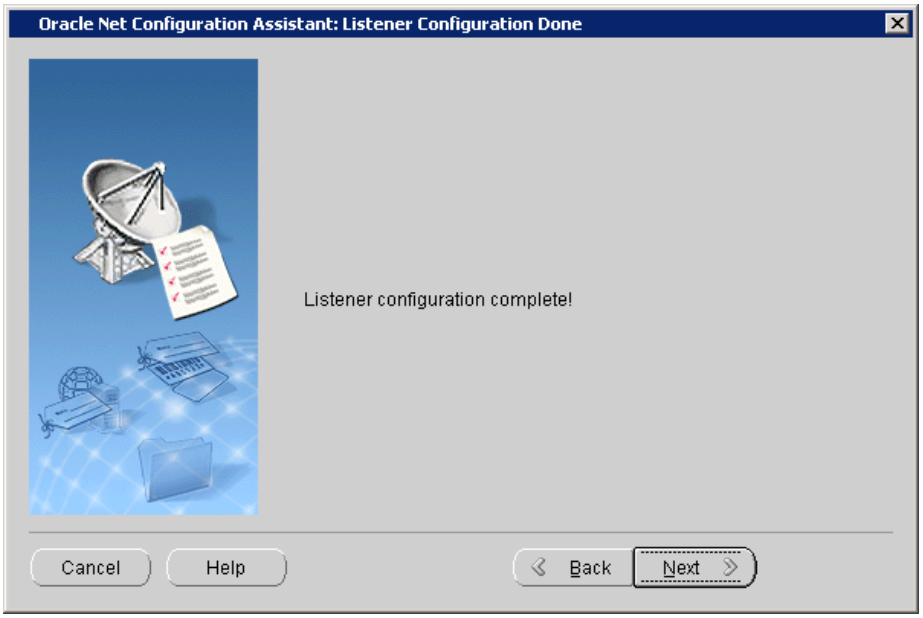
16. Click Next.

    The Oracle Net configuration Assistant – Listener Configuration, More Listeners? screen is opened.



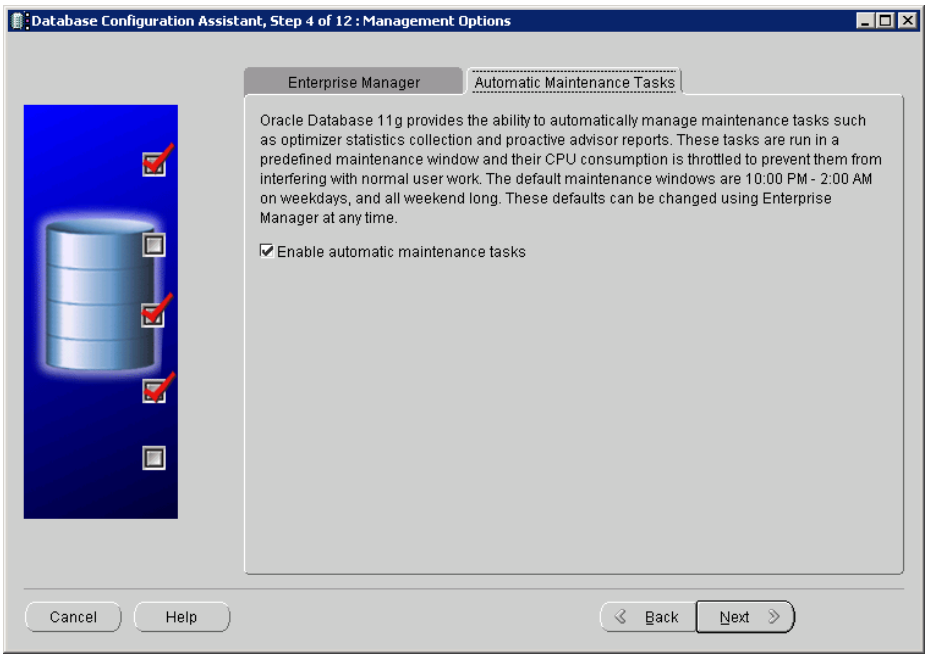
17. Select No and click Next.

    The Oracle Net configuration Assistant – Listener Configuration Done screen is opened.



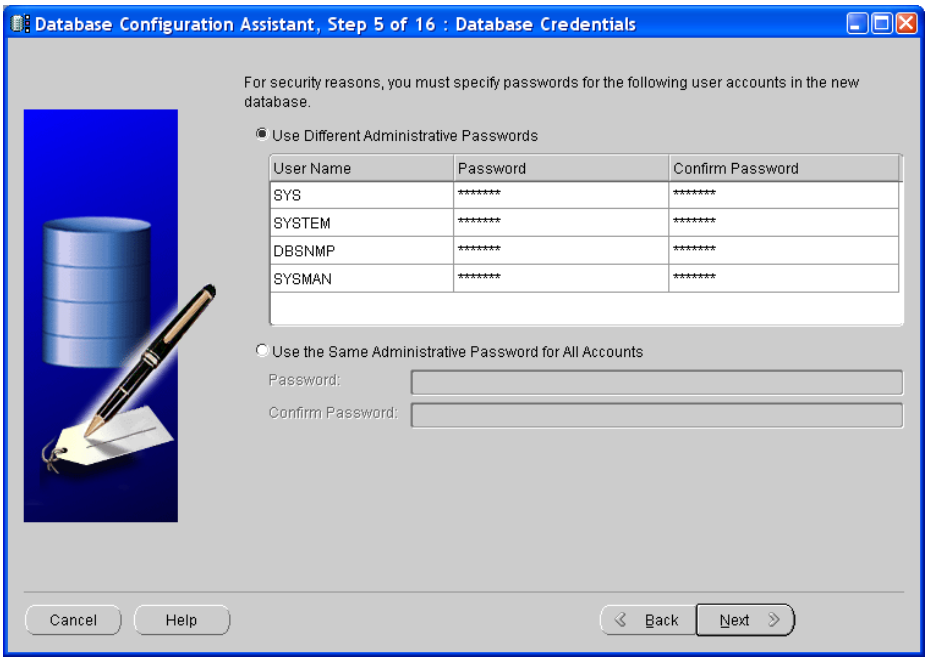
18. Click Next.

The Oracle Configuration Assistant – Management Options screen with tab Automatic Maintenance Tasks open is opened.



19. Select Enable automatic maintenance tasks and click Next.

    The Oracle Configuration Assistant – Database Credentials screen is opened.



20. Enter passwords for SYS, SYSTEM, DBSNMP, and SYSMAN and click Next.

Note It is highly recommended to use different passwords for these accounts.

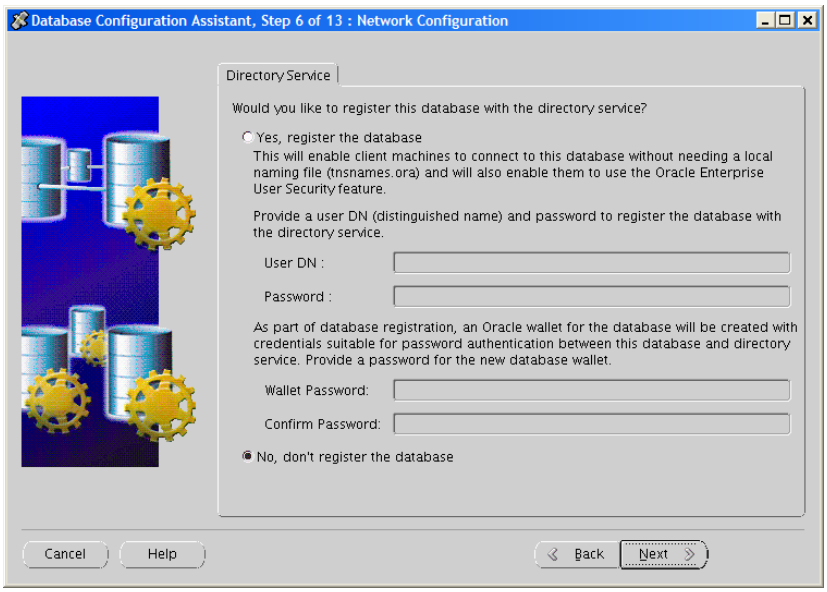
Note UNIX

We recommend to use a minimum of 8 characters for each password. In addition, the password must contain at least one upper and one lower case character, and one digit.

The following screen is only available on UNIX.

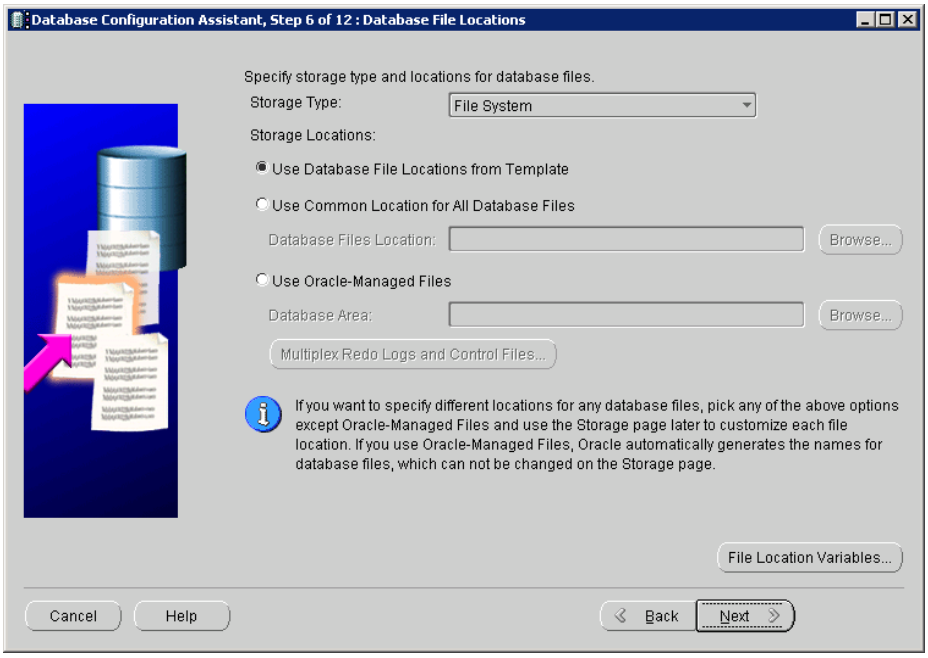
The Database Configuration Assistant – Network Configuration screen is opened.

Note Only on UNIX, the Database Configuration Assistant:Network Configuration is opened.



1. Select No, don’t register the database.
2. Click Next.

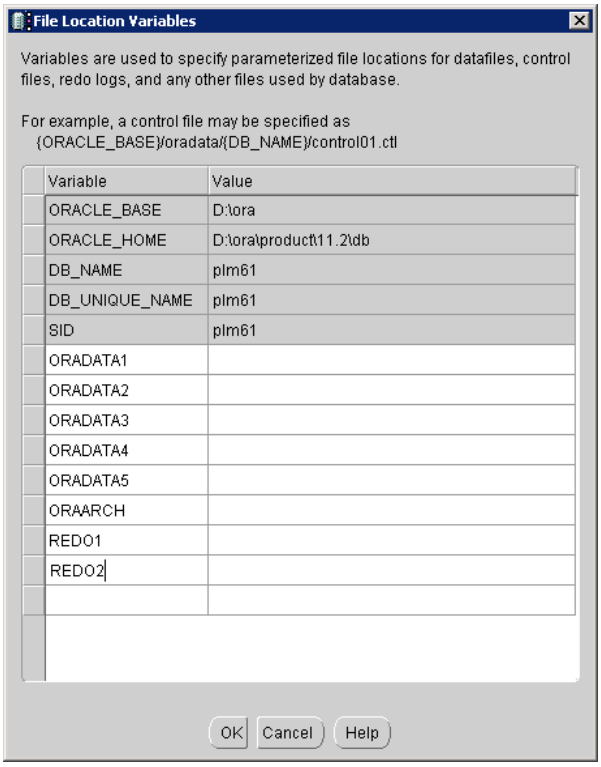
The Oracle Configuration Assistant – Database File Locations screen is opened.



21. Select Use Database File Locations from Template.

22. Click the File Location Variables… button.

    The File Location Variables screen is opened.



1. Enter the value for the variables.

   The values that you have to provide are the directories created, as described in chapter Oracle Database Prerequisites(example E:, F:, H:). DBCA will create the subdirectory plm61 in the directories where the database data files will be created.

Note If missing, please add File Creation Variables as described below.

Example: Depending on the selected template, the following table provides information on predefined file destination variables.

Variable	Description
ORADATA1	Directory for data files of tablespaces EDB, EDB_LOB, EDB_TMPIDX
ORADATA2	Directory for data files of tablespaces EDB_IDX, EDB_TMP
ORADATA3	Directory for data files of temporary tablespace TEMP
ORADATA4	Directory for data files of undo tablespace
ORADATA5	Directory for data files of tablespaces SYSTEM, TOOLS, USERS
ORAARCH	Directory for Archive log files
REDO1	Directory for redo log files
REDO2	Directory for redo log files

The following listing gives values that you can set for the variables when you have different number of disks:

- Number of disks: 1 (there is only one directory – e.g. /data1)

  Disk1: ORADATA1, ORADATA2, ORADATA3, ORADATA4, ORADATA5, REDO1, REDO2, ORAARCH – all variables will be set to /disk1

- Number of disks: 2 (there are two directories – e.g. /data1, /data2)

  Disk1: ORADATA1, ORADATA4, ORADATA5, REDO1 – they get the value of /data1
  Disk2: ORADATA2, ORADATA3, ORAARCH, REDO2 – they get the value of /data2

- Number of disks: 3

  Disk1: ORADATA1, ORADATA5
  Disk2: ORADATA2, ORADATA4, REDO1
  Disk3: ORADATA3, ORAARCH, REDO2

- Number of disks: 4

  Disk1: ORADATA1, REDO1
  Disk2: ORADATA2, REDO2
  Disk3: ORADATA3, ORAARCH
  Disk4: ORADATA4, ORADATA5

- Number of disks: 5

  Disk1: ORADATA1, REDO1
  Disk2: ORADATA2, ORAARCH
  Disk3: ORADATA3, ORADATA5
  Disk4: ORADATA4
  Disk5: REDO2

- Number of disks: 6

  Disk1: ORADATA1
  Disk2: ORADATA2, ORAARCH
  Disk3: ORADATA3
  Disk4: ORADATA4
  Disk5: ORADATA5, REDO1
  Disk6: REDO2

- Number of disks: 7

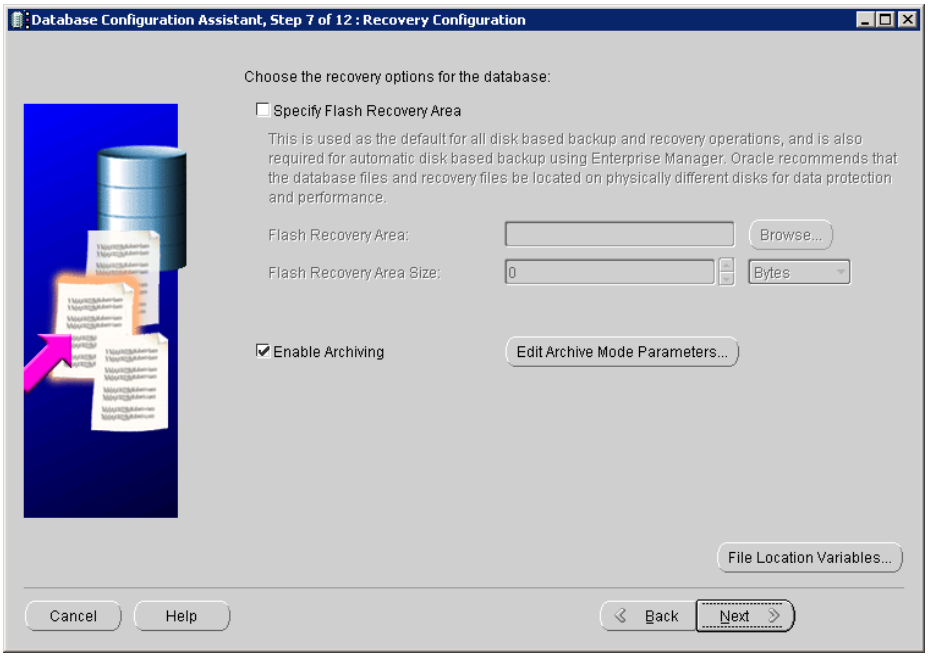
  Disk1: ORADATA1
  Disk2: ORADATA2
  Disk3: ORADATA3
  Disk4: ORADATA4
  Disk5: ORADATA5, ORAARCH
  Disk6: REDO1
  Disk7: REDO2

- Number of disks: 8

  Disk1: ORADATA1
  Disk2: ORADATA2
  Disk3: ORADATA3
  Disk4: ORADATA4
  Disk5: ORADATA5
  Disk6: ORAARCH
  Disk7: REDO1
  Disk8: REDO2

2. Click OK and then Next.

The Database Configuration Assistant – Recovery Configuration screen is opened.

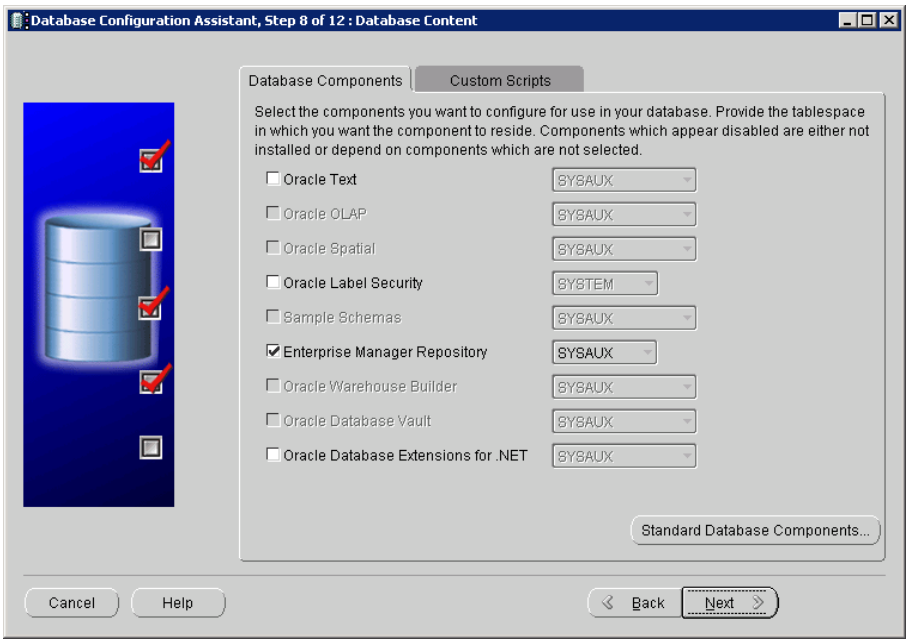


23. Deselect the option Specify Flash Recovery Area.

    Depending on your backup strategy and used template, archiving can be enabled.

Note	For a productive database it is highly recommended to archive the database. To specify the destination of the archive directory, click the button Edit Archive Mode Parameters button (predefined by the variable ORAARCH).

24. Click Next.



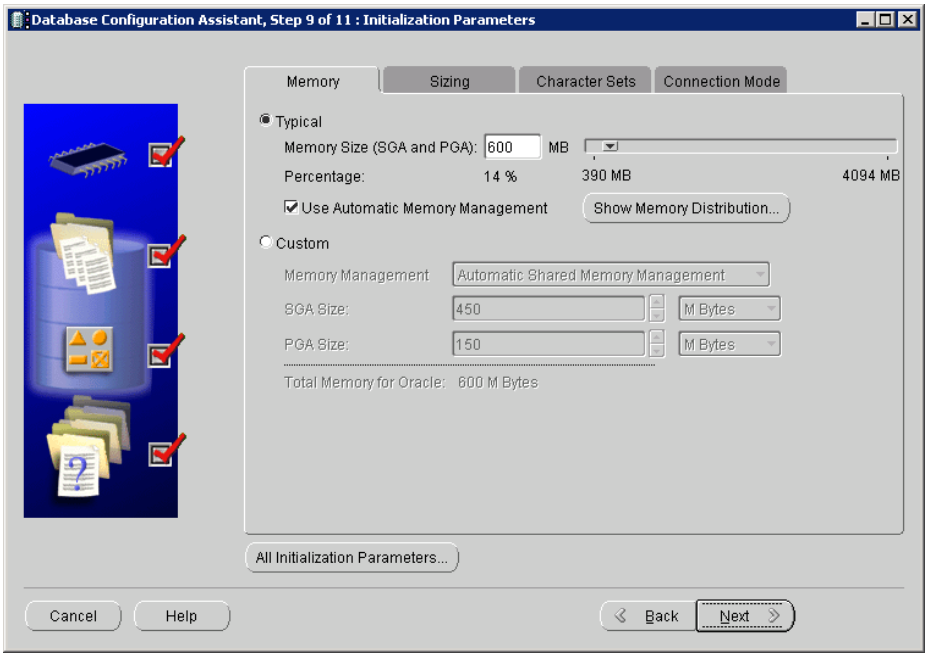
This screen provides database features as well as the possibility to run custom scripts after the database creation.

We do not recommend changing the settings provided by the template.

25. Click Next.

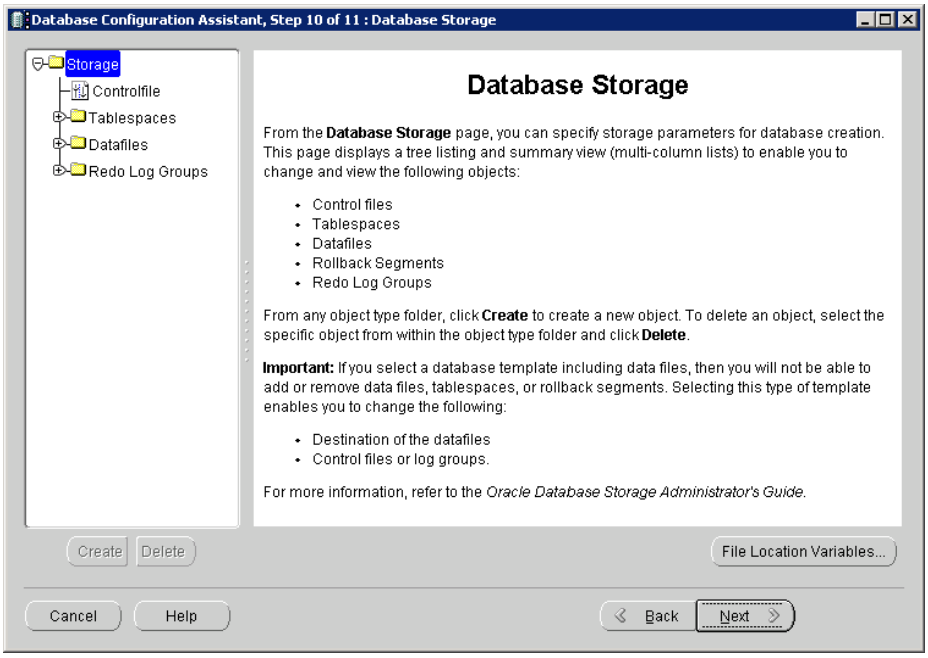
The next screen provides different database parameters. You can navigate to the setting of memory, character sets, database sizing, and connection mode. Usually all parameters are set by the selected template and you don't need to change them. Experienced users can modify some parameters, depending on the database size and number of users.

For complete information on additional parameters, e.g. memory, refer to the Hardware Sizing guide for Agile e6.1.3.0.



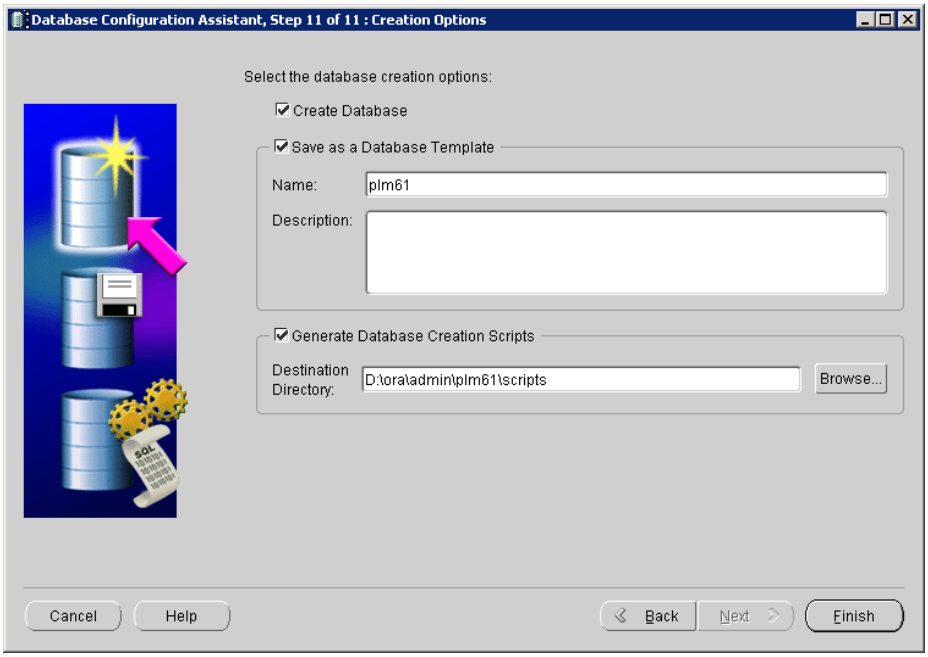
26. Click Next.

The Database Configuration Assistant – Database Storage screen is opened and shows table space, data files, control files, and redolog groups/files to be created.



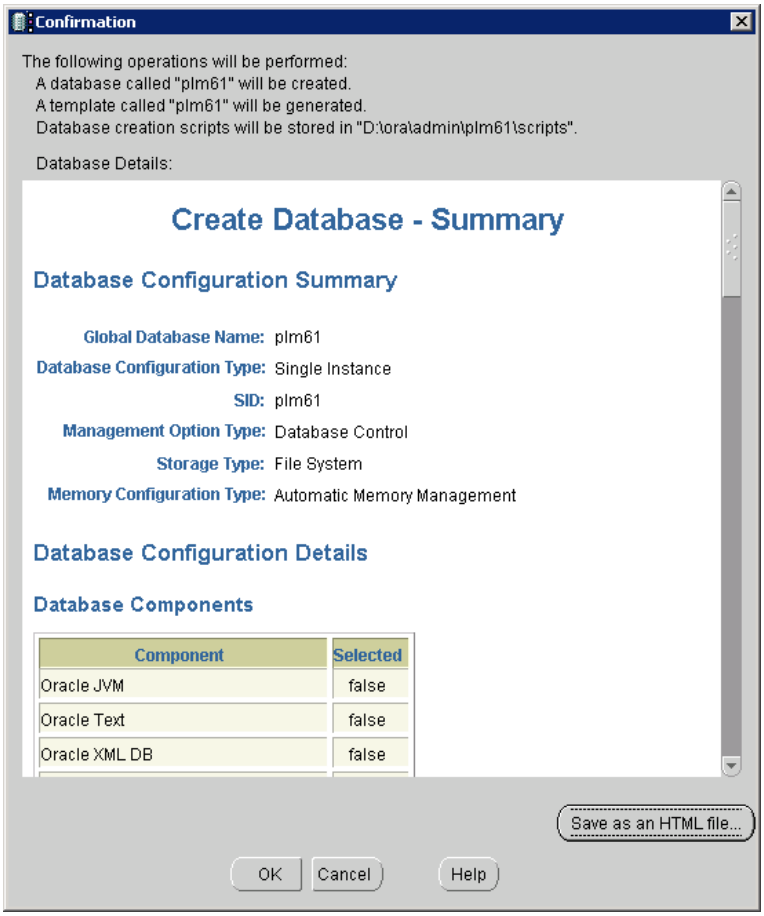
27. Click Next.

    The Database Configuration Assistant - Creation Options screen is opened.



28. Select Create Database, Save as a Database Template, and Generate Database Creation Scripts, and click Finish.

    The Confirmation screen is opened, showing a summary of the database parameters.



29. Click OK.

    The database creation process is started.

30. When the database creation is done, click Exit to finish the process.

Configuring the Database Net Service Name

This chapter describes the manual configuration of the Database Net Service Name.

Note The following instruction is only necessary for the database!.

Note On UNIX, only the manual configuration can be performed. For the configuration on a Windows operating system see chapter Installation with the Agile e6 Installer.

Configuring tnsnames.ora and sqlnet.ora

1. Start the Oracle Net Manager.

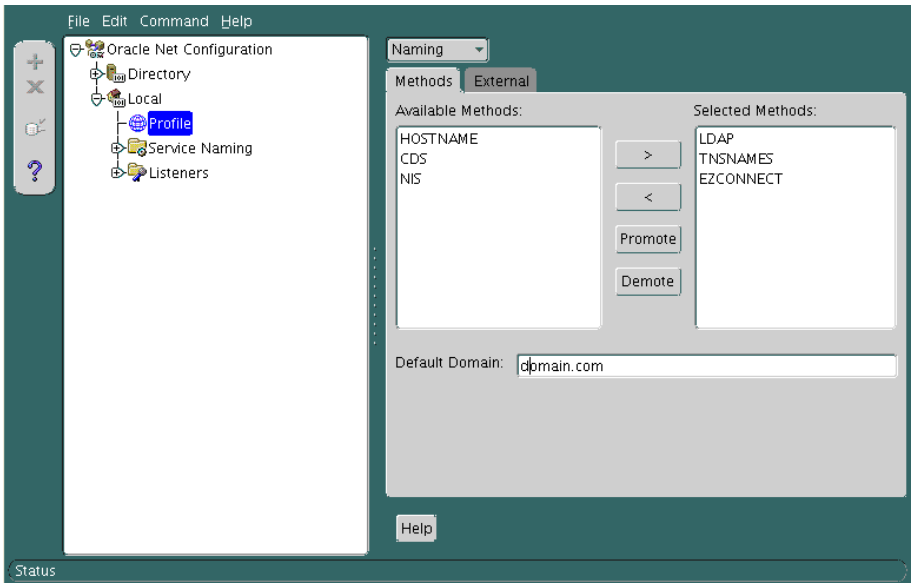
- Windows:

  Click Start > All Programs > Oracle - OraDb11g_home1 > Configuration and Migration Tools > Net Manager.

- UNIX

  Enter the command: $ORACLE_HOME/bin/netmgr

2. Expand the view for Local and click on Profile.



3. On the tab Methods, enter your domain name in the field Default Domain.

4. In the main menu, click File > Save Network Configuration.

5. Click File > Exit.

6. Start the Oracle Net Services Configuration Tool.

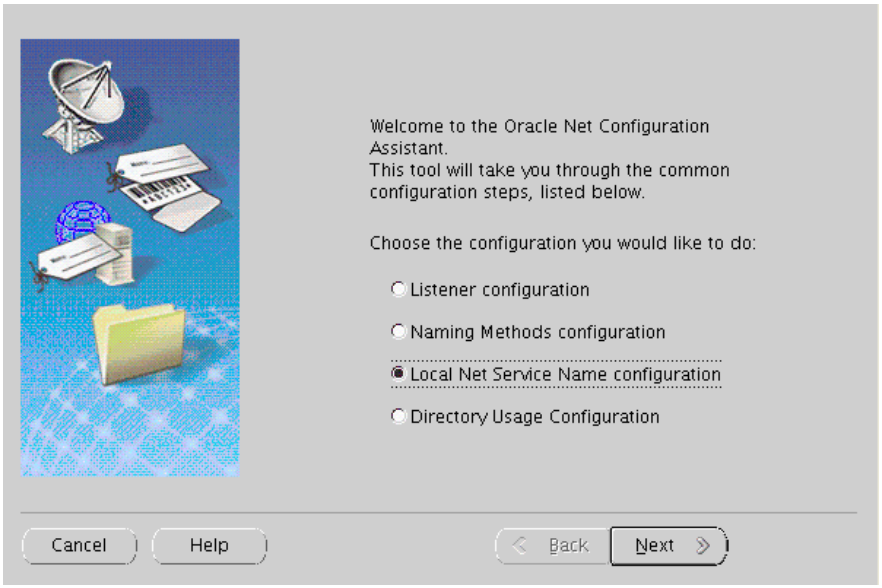
- Windows

  Click Start > All Programs > Oracle - OraDb11g_home1 > Configuration and Migration Tools > Net Configuration Assistant.

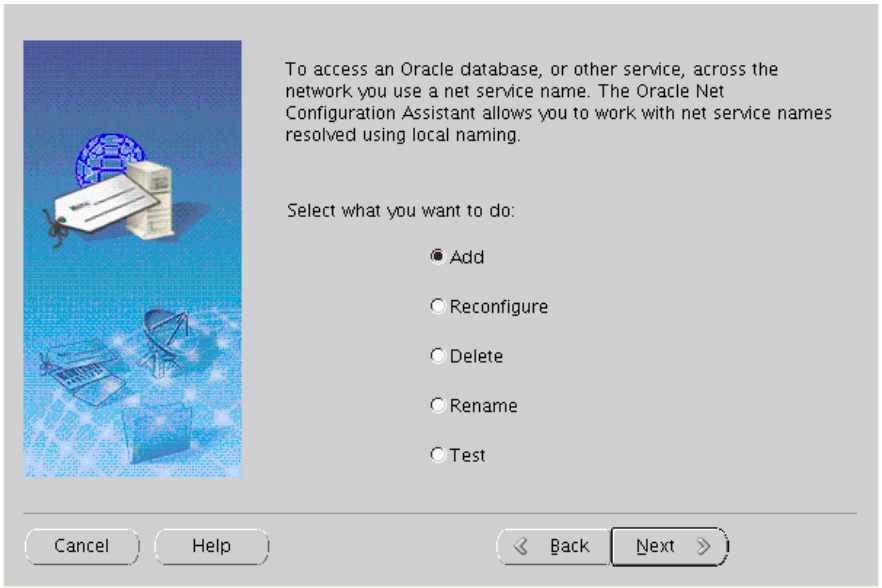
- UNIX

  Enter the command: $ORACLE_HOME/bin/netca

  The Welcome to the Oracle Net Configuration Assistant screen is opened.



7. Select the Local Net Service Name configuration and click Next.



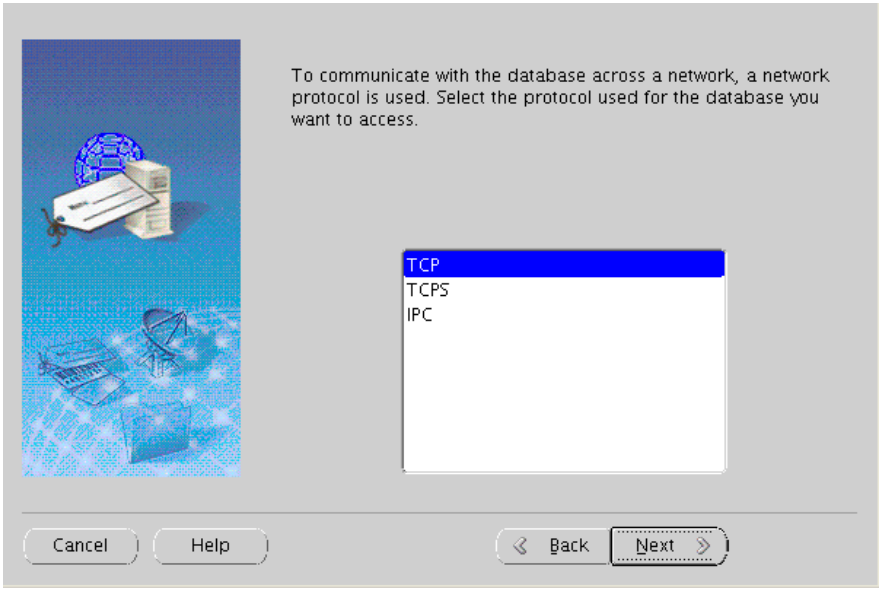
8. Select Add and click Next.



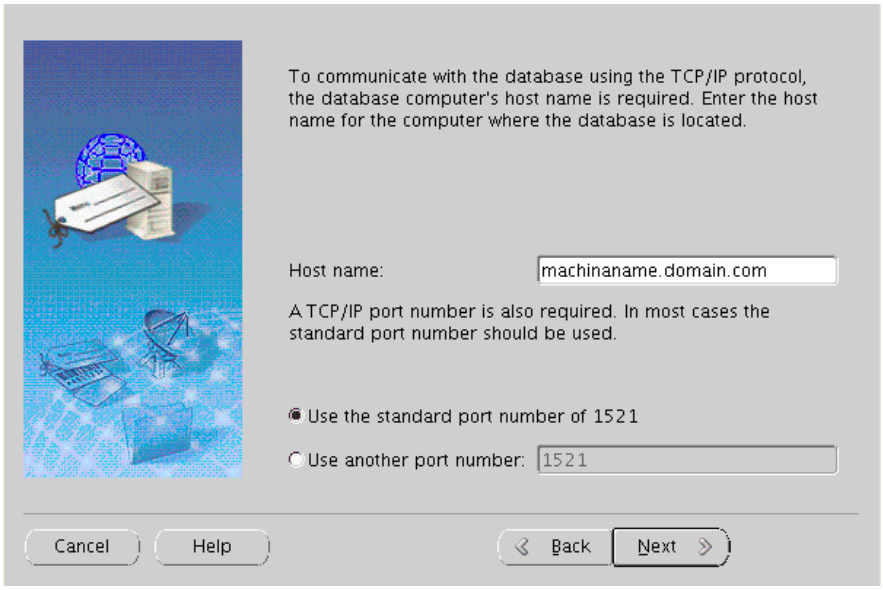
9. Enter the Service Name.

   This is the global database name you provided by the database creation. In the example it is plm61.domain.com.

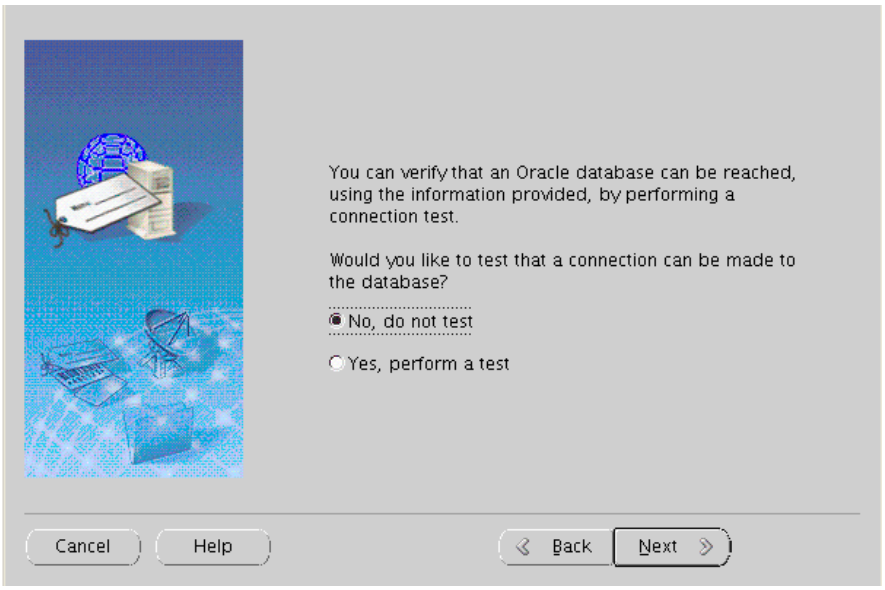
10. Click Next.



11. Select the TCP protocol and click Next.



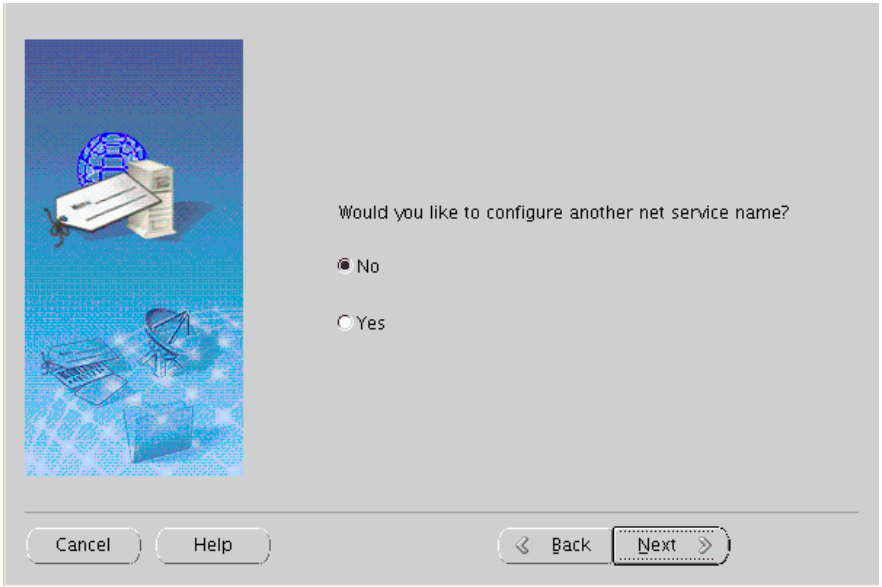
12. Enter the fully qualified host name – where the Oracle database is located and click Next.



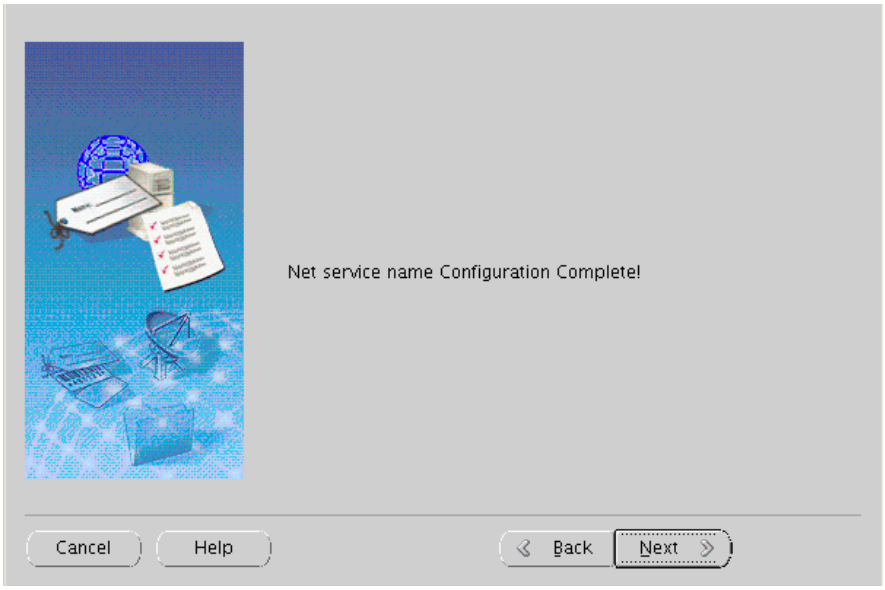
13. Select No, do not test and click Next.



14. Enter the Net Service Name and click Next.



15. Select No and click Next.



The Net service name configuration is completed.

16. Click Next.
17. Click Finish to quit.
18. Test the database connection with the following command:

```
sqlplus system@plm61/<SYSTEM password>
```

Modifying the Oracle Database

Note This section describes the manual modification of the Database. Keep in mind that on UNIX only the manual modification can be performed.

Create Directories for the Oracle Data Pump Utility

1. Create a directory which will be used for the Oracle Data Pump Export/Import Utility with two subdirectories - system and user (for instance D:\ora_dmp\system; D:\ora_dmp\user).
2. Open an SQLplus session and connect as user ‘system’.

   ```
   sqlplus system/<system password>
   ```
3. Run the script ddl_pump_dir.sql.

   It is located in the addon/db/sql directory of the downloaded Oracle Agile Engineering Data Management Application (Release e6.1.3.0) package.

   ```
   SQL>@<full path to the file ddl_pump_dir.sql>
   ```

4. Enter the path to the main directory created under step 1 (for instance d:\ora_dmp).

   The script will create two directory objects – one for system users, and one for normal users and will give rights for the second directory to user PLM.

Create a Database User and Role

You will need to create the Agile e6.1.3.0 database user and role and provide the necessary privileges and quotas. You can do this by using the following commands, or by using the Oracle Enterprise Manager Database Control as described in the section below.

You can create AGILE_E_ROLE role and plm schema also by executing the script cre_plm_usr.sql in the directory …/addon/db/sql.

```
SQL>@<full path to the file cre_plm_usr.sql>
```

Username (e.g. PLM) and password have to be provided.

Using SQL to Create a Role

1. Check if the plm role exists.

   1. Open an SQLplus session
   2. Connect as SYS or SYSTEM.
   3. Execute the following command:

      ```
      select role from dba_roles where role='AGILE_E_ROLE';
      ```

2. If string 'AGILE_E_ROLE' is returned, the role exists.

   If it exists, skip the role creation and continue with Using SQL to Create a User.

   Otherwise, the role has to be created.

3. Use the SQL code below to create the role AGILE_E_ROLE:

```
CREATE ROLE AGILE_E_ROLE;
GRANT CONNECT TO AGILE_E_ROLE;
GRANT CREATE TABLE TO AGILE_E_ROLE;
GRANT CREATE VIEW TO AGILE_E_ROLE;
GRANT CREATE SYNONYM TO AGILE_E_ROLE;
GRANT CREATE DATABASE LINK TO AGILE_E_ROLE;
GRANT CREATE SEQUENCE TO AGILE_E_ROLE;
GRANT ALTER SESSION TO AGILE_E_ROLE;
GRANT CREATE PROCEDURE TO AGILE_E_ROLE;
GRANT CREATE TRIGGER TO AGILE_E_ROLE;
GRANT ALL ON DIRECTORY ORA_DMP TO AGILE_E_ROLE;
```

Using SQL to Create a User

1. Use the SQL code below to create the plm schema (e.g. PLM):

```
CREATE USER PLM
IDENTIFIED BY <PASSWORD>
DEFAULT TABLESPACE "EDB"
TEMPORARY TABLESPACE "TEMP"
PROFILE DEFAULT
QUOTA UNLIMITED ON "EDB"
QUOTA UNLIMITED ON "EDB_IDX"
QUOTA UNLIMITED ON "EDB_TMP"
QUOTA UNLIMITED ON "EDB_TMPIDX"
QUOTA UNLIMITED ON "EDB_LOB"
ACCOUNT UNLOCK;
GRANT "AGILE_E_ROLE" TO PLM;
ALTER USER PLM DEFAULT ROLE AGILE_E_ROLE;
```

Using Enterprise Manager Database Control to Create a User

You can access the Oracle Enterprise Manager Database Control as follows:

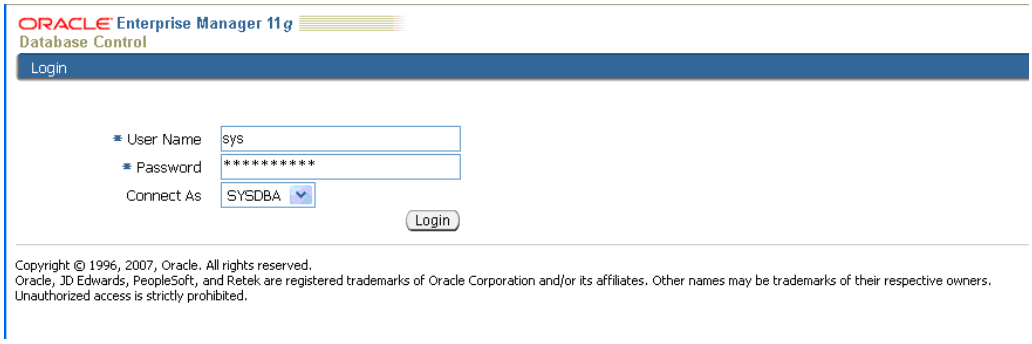
1. Open your browser and enter the following URL:

   https://<hostname>:<port>/em

   DB Control port can be found by checking the status of the DB Control:

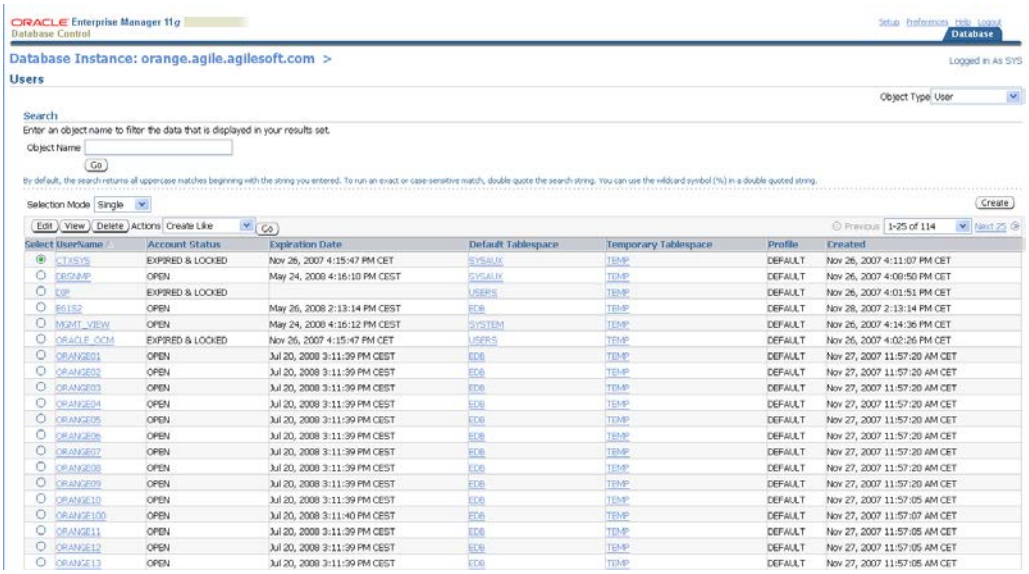
```
emctl status dbconsole
    Oracle Enterprise Manager 11g Database Control Release 11.2.0.3
    Copyright (c) 1996, 2010 Oracle Corporation.  All rights
    reserved.
    https://hostname:port/em/console/aboutApplication
    ….
```

2. Enter your user credentials and click Login.



3. Open the tab Server, and in the Security section click on Users.

4. Click Create.



5. Open the tab General, and insert a user name and password.

6. Assign default and temporary table space for this user.

7. Open the tab Roles and click Edit List.

8. From the list with Available Roles, select the role AGILE_E_ROLE.

   The role AGILE_E_ROLE got created in the previous section.

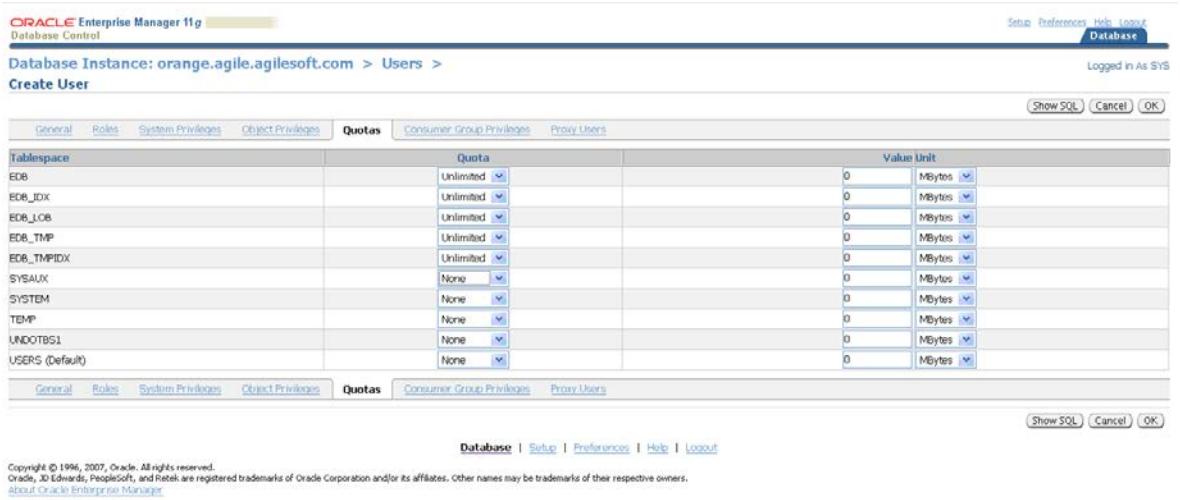
9. Click Move.

   The role is moved to the list Selected Roles.

10. Click OK.



11. Open the tab Quotas, and assign unlimited quota to EDB, EDB_IDX, EDB_LOB, EDB_TMP, and EDB_TMPIDX.



12. Click OK to finish the database user creation.

Import the Database Dump

Import the Agile e6.1.3.0 dump, using the following commands, and then check the log file for errors.

- Windows

  Make sure that the variable NLS_LANG is set to AMERICAN_AMERICA.WE8MSWIN1252.

  Check the registry for the value of the variable NLS_LANG - HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\KEY_<11gR2 installation>

- UNIX

  Make sure that the correct value is set for the environment variable NLS_LANG (value from the file csh_ORA11.2 - AMERICAN_AMERICA.WE8MSWIN1252).

1. Start the import.

```
imp username/pass@plm61 file=plm61.dmp log=plm61.log buffer=500000
commit=y statistics=none full=y
```

Note username/ pass are the name and the password of the user you created in the database.

commit=y	Rollback segments cannot get too small
statistics=n	No statistics will be created
buffer=500000	Necessary for lobs, better performance

full=y	Imports full dump, even if the dump was exported by different users

Compile All Invalid Objects in Schema PLM

After importing the Agile e6.1.3.0 dump, some objects might be invalid. This can be verified by the following way:

1. Open an SQLplus session and connect as 'sys' – as sysdba.

   ```
   sqlplus sys/<sys password> as sysdba
   SQL> select count(*) from dba_objects where status <> 'VALID' and
   owner='PLM';
   ```

   If the returned message is 'no rows selected', then you have no invalid objects.

2. Otherwise, execute the script utlrp.sql.

   The script will compile all invalid objects in the database.

   ```
   SQL> @?/rdbms/admin/utlrp.sql
   ```

3. Verify that there are no invalid objects:

   ```
   SQL> select count(*) from dba_objects where status <> 'VALID' and
   owner='PLM';
   ```

Gather Statistics

In Oracle 11gR2, the default value for the OPTIMIZER_MODE initialization parameter is ALL_ROWS, which means that a cost-based approach will be used for all SQL statements. Oracle highly recommends creating statistics in order to avoid performance losses. This should be done after the dump import and has to be repeated periodically.

1. Calculate statistics of all tables and indexes in db schema PLM:

   ```
   SQL> EXECUTE DBMS_STATS.GATHER_SCHEMA_STATS('PLM',CASCADE =>true);
   ```

Note Statistic information can be viewed, e.g. in user_tables and user_indexes. These views provide information about average width of the row and number of rows.

For more information about statistics management please refer to the Oracle Database manuals.

Problems During Database Creation

When having problems with the database creation, perform the following checks:

- Database creation logs: %ORACLE_BASE%\cfgtools\dbca\<db name>
- Instance Parameter file: %ORACLE_BASE%\admin\<db name>\pfile\init.ora
- Instance SPFILE: %ORACLE_HOME%\dbs\spfile<db name>.ora
- Database Diagnostics: %ORACLE_BASE%\diag\rdbms\<db name>\<db name>
- Network configuration: %ORACLE_HOME%\network\admin*.ora

Chapter 10

Installing Oracle WebLogic Server

Note This chapter describes the manual installation of the Oracle WebLogic 12c (12.1.2.0) Server. For the automatic installation please see Installation with the Agile e6 Installer.

Note Before you begin with the installation of Oracle WebLogic Server, note the following:

- The generic Oracle WebLogic Installer must be started with the installed 64-bit Java 7 JDK.
- The Generic Oracle WebLogic Server (jar file) cannot be started with 32-bit JVM.

Windows Prerequisites

There are no prerequisites referring only to Windows.

UNIX Prerequisites

Note Installing the WebLogic Server and the EDM Server on the same UNIX server machine, requires special attention:

If the operating system user for the WebLogic installation is different to the operating system user for the EDM Server installation, a component based installation is required. For further information please refer to the chapter Component Based Installation.

The Java on HP-UX and Oracle Solaris must be started with the -d64 option. If the option -d64 is not supplied, the Java executable starts in its default 32bit mode.

The –d64 option is supported on all operating systems, so you can always use it while installing the Oracle WebLogic Server.

Generic Prerequisites

1. Before starting the installation, ensure that the bin directory of the appropriate JDK, used to run the installer, is at the beginning of the PATH variable, or called with the full path to the java executable.

2. Set the JAVA_HOME environment variable to the installed 64bit Java Development environment.

Note This setting is important, because the WebLogic server will use this Java based on this setting.

- Windows

```
set JAVA_HOME=C:\Program Files\Java\jdk1.7
```

- UNIX

```
setenv JAVA_HOME /usr/local/java/jdk7
```

3. Check the Java version with:

```
java –d64 -version
```

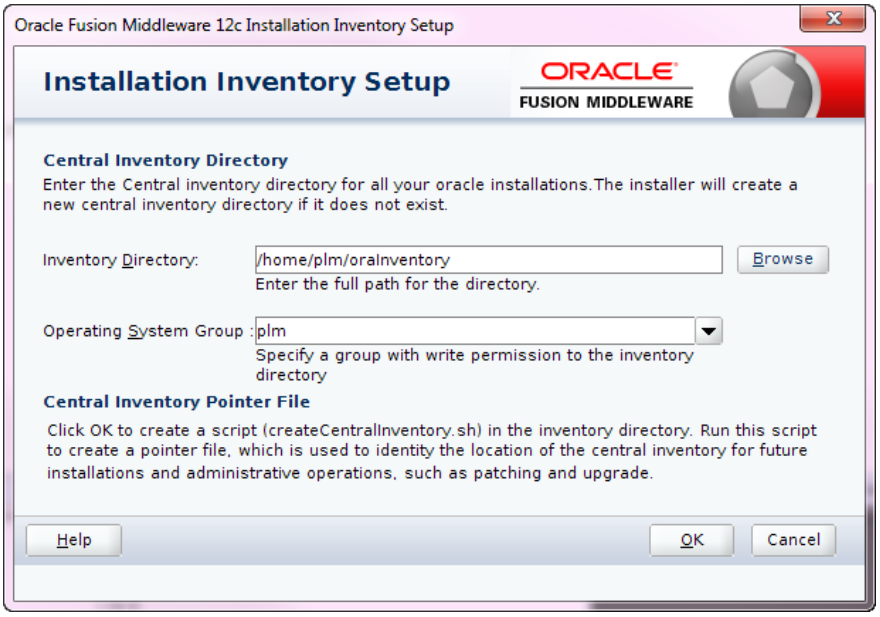
- If you try to start a 32bit Java, or start a 64bit Java on a 32bit operating system, this command will fail.
- In this case, run the installer as follows:

```
java -d64 -jar wls_121200.jar
```

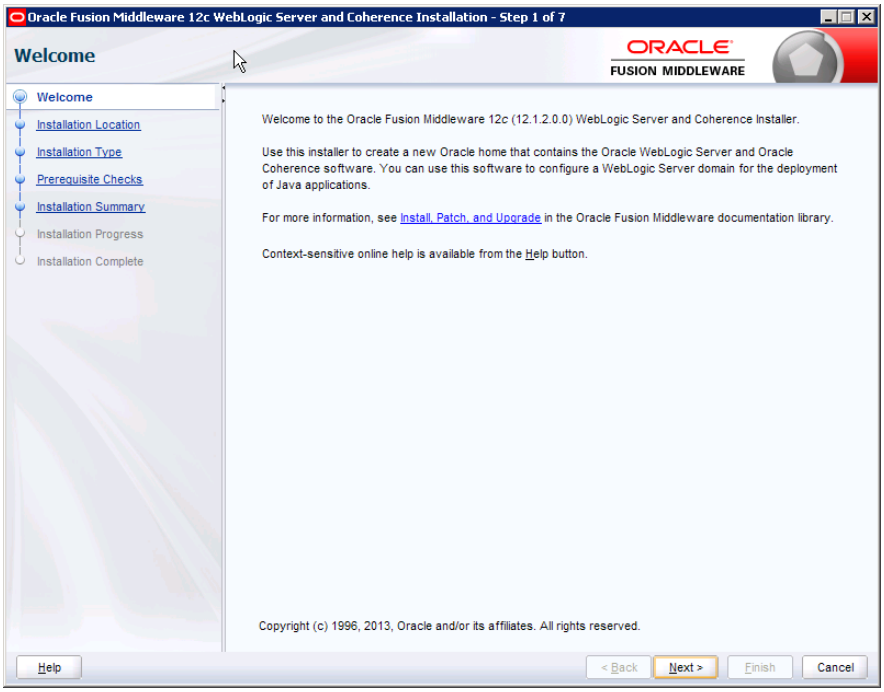
Installation

1. Run the Oracle WebLogic installer file.

   On UNIX the Installation Inventory Setup screen is opened.

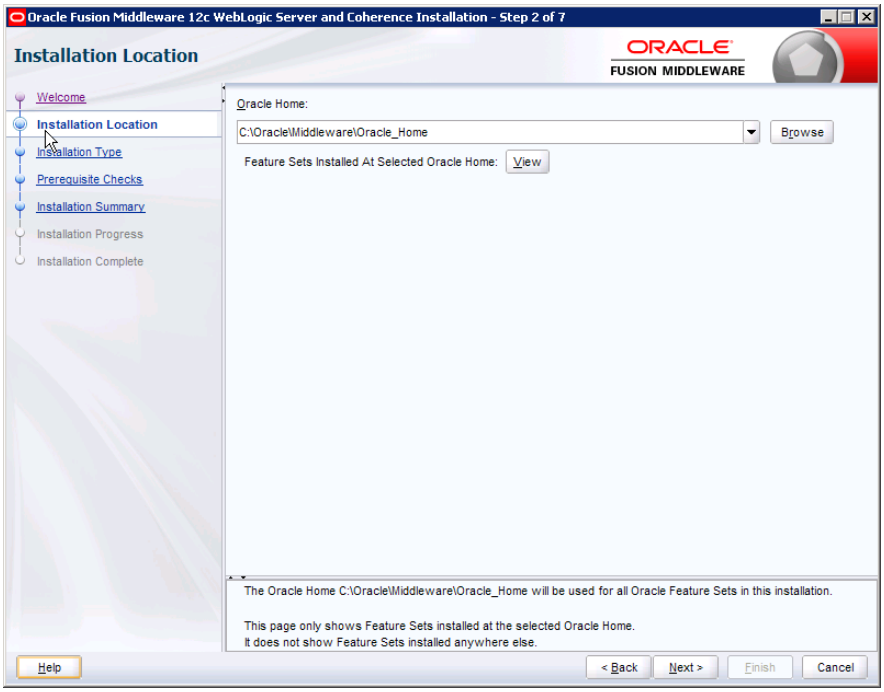


Note The following screens is opened for all Operating Systems.



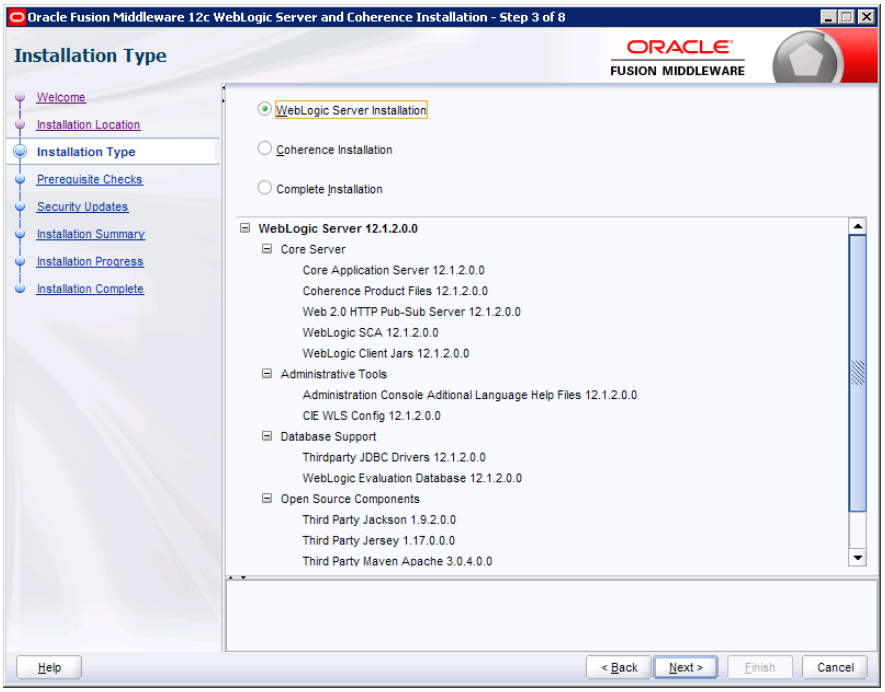
2. Click Next.

   The Installation Location screen is opened.



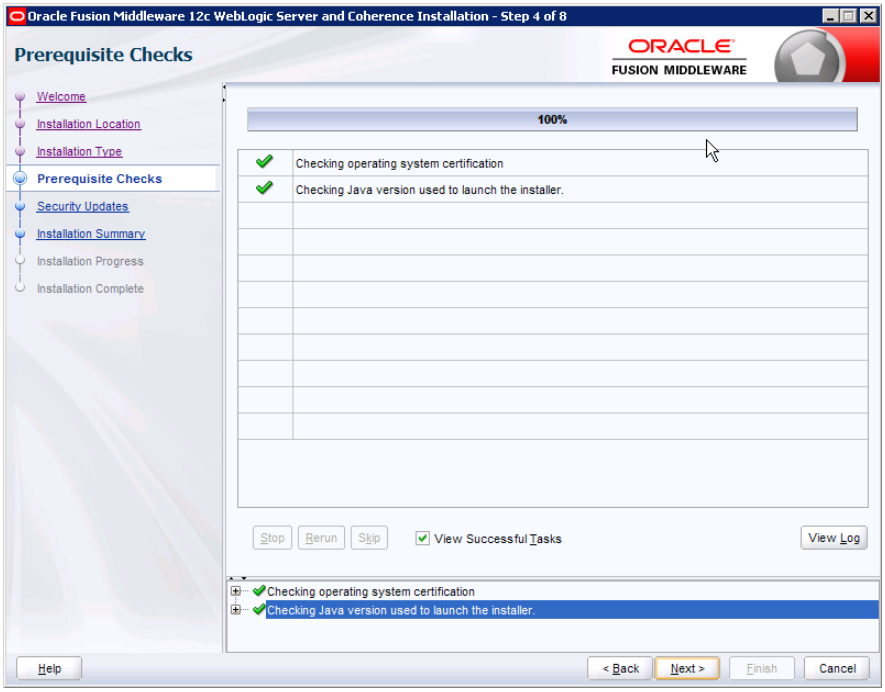
3. Specify the new Oracle Home Directory path and click Next.

   The Installation Type screen is opened.



4. Select the WebLogic Server Installation and click Next.

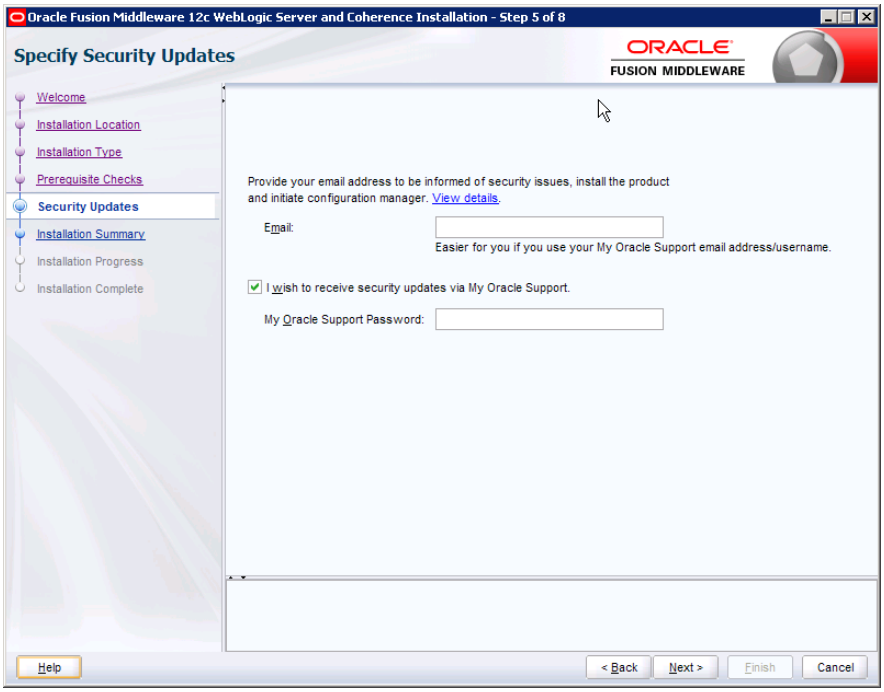
   The Prerequisite Checks screen is opened.



5. If issues are listed, they need to be resolved first before continuing with the next step.

6. Click Next.

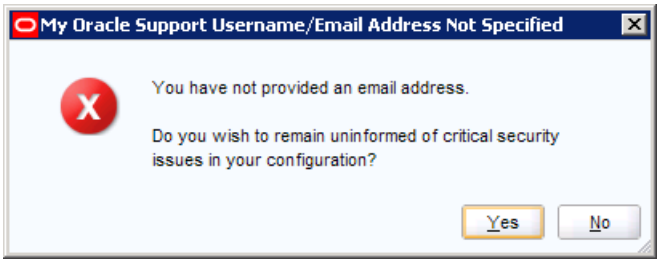
The Specify Security Updates screen appears.



Here you can enter your My Oracle Support account information to receive the latest product information and security updates via your My Oracle Support account.

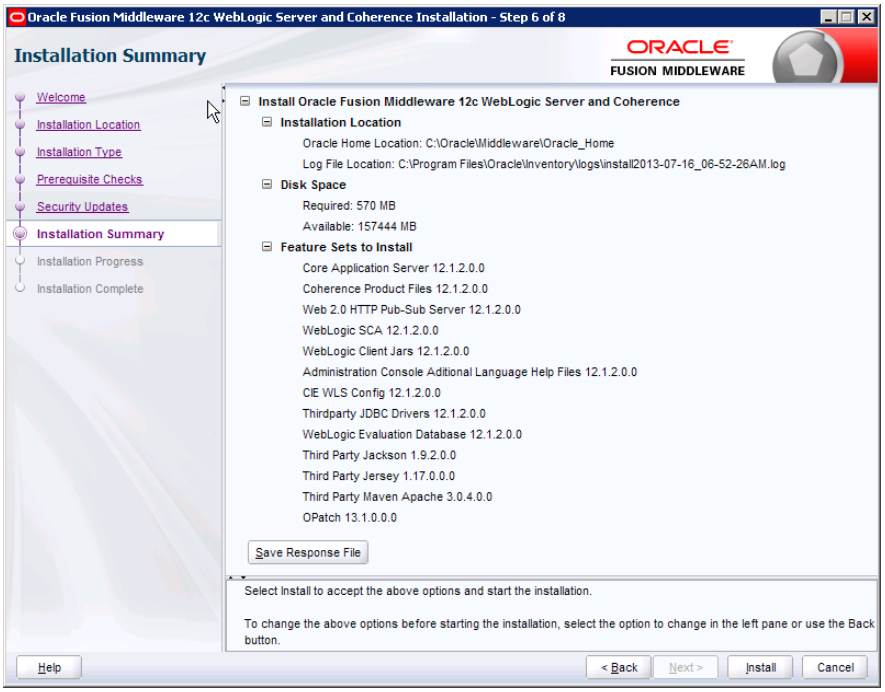
7. If you do not wish to register for security updates, or if you do not have a My Oracle Support account, then leave all the fields on this screen empty and click Next.

   The following warning screen can be shown.



8. To confirm click Yes.

   The Installation Summary screen is opened.

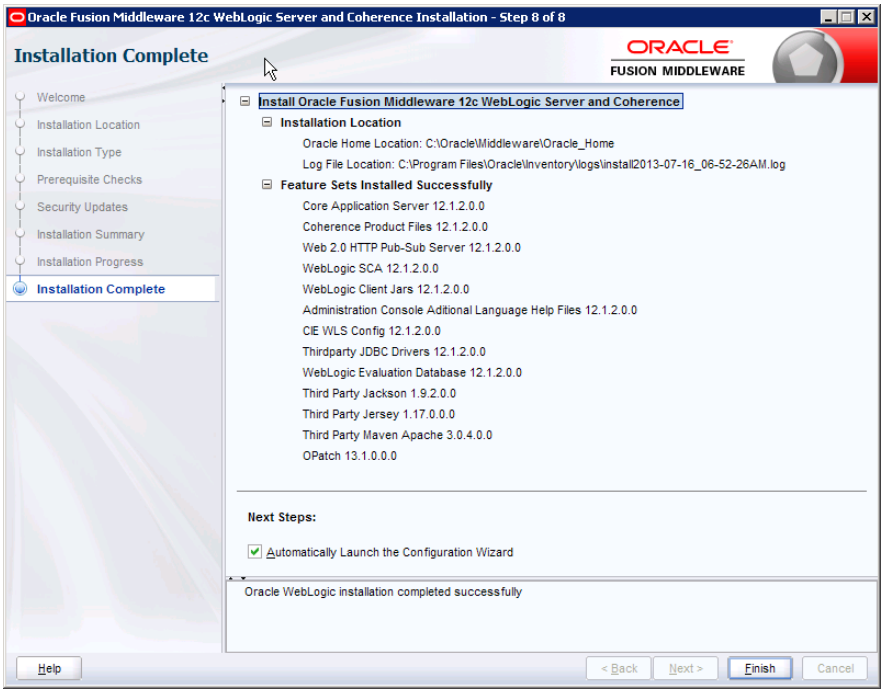


9. Review the listed options and click Install.

   The installation process begins.

10. When the installation completes, click Next.

    The Installation Complete screen is opened.



11. Uncheck Automatically Launch the Configuration Wizard and click Finish.

Node Manager Configuration

After the completion of the installation process of the Oracle WebLogic Server, the Node Manager must be configured.

Agile e6.1.3.0 is using one Node Manager for every host.

Windows

The Windows Service for the Node Manager has to be created manually.

Execute the following command to create the Windows Service:

```
<ORACLE_HOME_FOR_WEBLOGIC>\wlserver\server\bin\installNodeMgrSvc.cmd
```

UNIX

To start the Node Manager:

Execute the following commands:

```
cd <ORACLE_HOME_FOR_WEBLOGIC>/wlserver/server/bin
./startNodeManager.sh &
```

All Operating Systems

Note Starting with WebLogic 12.1.2 the default setup of the Node Manager is not creating the required certificate. This has to be done manually.

Production Certificate Setup

For information on configuring SSL for Node Manager in production environments, see Using SSL With Java-based Node Manager.

Note This requires a new property (KeyStores) in the nodemanager.properties file. See Reviewing nodemanager.properties

Demo Certificate Setup

1. The following directory has to be created:

   ```
   <ORACLE_HOME_FOR_WEBLOGIC>\oracle_common\common\nodemanager\security
   ```

Note This directory can be created if you start the Node Manager once. The Node Manager will not continue to run because the required certificate is not available at this point.

2. To properly set up the PATH and CLASSPATH variables, run the following command:

   - Windows (from a command shell):

     call <ORACLE_HOME_FOR_WEBLOGIC>\wlserver\server\bin\setWLSEnv.cmd

   - UNIX (with a /bin/sh shell):

     <ORACLE_HOME_FOR_WEBLOGIC>/wlserver/server/bin/setWLSEnv.sh

Important The dot and the space character (.) in front of the UNIX command are required to source the environment in the current bourne shell.

Note On UNIX, the above command has to be executed from a bourne shell. This shell can be started with the following command: /bin/sh

3. Create a new directory in which you execute the following two steps.

Note Please make sure the PATH and JAVA_HOME environment variable are set correctly.

4. Generate a certificate and private key.

```
java utils.CertGen -keyfilepass DemoIdentityPassPhrase -certfile
democert -keyfile demokey
```

Note By default, utils.CertGen will use the short host name as the owner CN value in the generated certificate. To use the fully qualified DN host name, add the -cn option to the above command and append the full-qualified DN host name after it. See the following example for the host with the name app.example.com:

java utils.CertGen -keyfilepass DemoIdentityPassPhrase -certfile democert -keyfile demokey **-cn app.example.com**

5. Import the private key and certificate.

```
java utils.ImportPrivateKey -keystore DemoIdentity.jks -storepass
DemoIdentityKeyStorePassPhrase -keyfile demokey -keyfilepass
DemoIdentityPassPhrase -certfile democert.pem -keyfile demokey.pem -
alias demoidentity
```

Note The *DemoIdentity.jks* keystore now contains one private key and certificate entry. The other files can be deleted.

6. Move the DemoIdentity.jks keystore to the following directory:

```
<ORACLE_HOME_FOR_WEBLOGIC>\oracle_common\common\nodemanager\security
```

Adaption to the Node Manager Configuration

Now it will be possible to successfully start the Node Manager because of the valid Node Manager certificate.

Start the Node Manager. If you already used the Node Manager startup to create the security directory, this will be the second time the Node Manager will be started. This start will generate the nodemanager.properties file.

After the first successful startup of the Node Manager, it must be reconfigured. This configuration file will only be available after the first successful startup with a working Node Manager certificate.

1. Change the following properties in the file:

   ```
   ORACLE_HOME_FOR_WEBLOGIC>\oracle_common\common\nodemanager\nodemanager
   .properties
   SecureListener=false
   ListenAddress=127.0.0.1
   CrashRecoveryEnabled=true
   ```

2. After the changes, restart the Node Manager.

Chapter 11

Verifying the Installation on UNIX

The following instruction can be used to verify the complete Agile e6 installation on UNIX.

1. After the Agile e6 application installation, the processes (daemons) listed below should be running on the server machine.

   ```
   ps -ef | grep <installation name>
   ```

   The exact values depend on the installation, but in general, the following processes have to be available:

   - DataviewDaemon
   - Java Wrapper for Java Daemon
   - Java Daemon
   - Java Wrapper for FMS Java Daemon
   - FMS Java Daemon
   - Java Wrapper for Apache Tomcat
   - Apache Tomcat

2. Start the processes manually.

   Note The database and application server processes should be running already.

   If you want to start the Agile e6 processes manually, execute the following commands:

   - Java Daemon:

     ```
     cd $ep_root/axalant/scripts
     ./jade start
     ```

   - FMS Java Daemon:

     ```
     cd $ep_root/axalant/scripts
     ./fms_jade start
     ```

   - Dataview Daemon:

     ```
     cd $ep_root/axalant/scripts
     ./dtv_dmn.sh
     ```

Chapter 12

Uninstalling

EDM Server

1. Start the Agile e6 Installer

- Windows

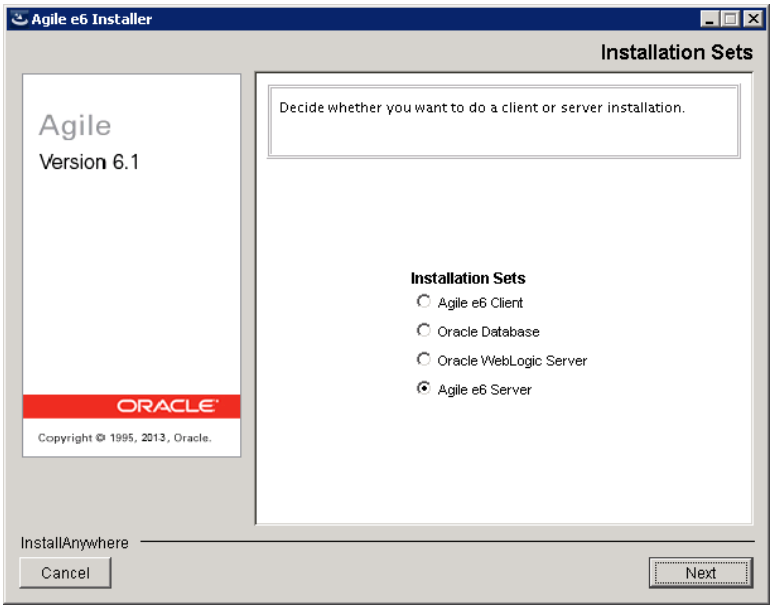
    1. Open a command shell.
    2. Change to the installer directory:
       ```
       cd <installation-media-path>\installer
       ```
    3. Enter the following command:
       ```
       gui.cmd
       ```

- UNIX

    Note On UNIX, all Agile e6 services (File Server, Java daemon, DataView daemon) need to be stopped before uninstalling.

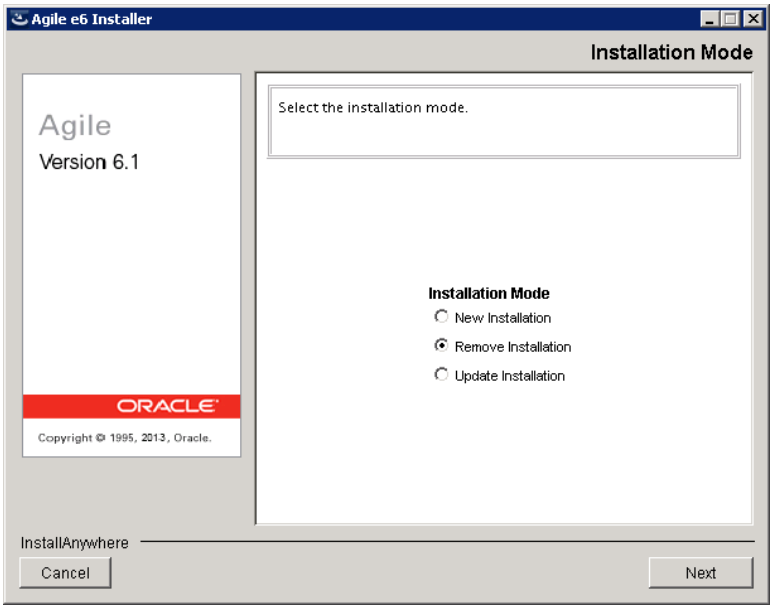
    1. Open a command shell.
    2. Change to the installer directory:
       ```
       cd <installation-media-path>/installer
       ```
    3. Enter the following command:
       ```
       ./gui.csh
       ```

    The Installation Sets screen is opened.



2. Select Agile e6 Server and click Next.

   The Installation Mode screen is opened.



3. Select Remove Installation and click Next.

4. Select the name of the installation to be deleted.

Note All parts of the installation will be removed. The installation destination directory will be renamed. It can be deleted if it is of no use anymore.

Note The installer and the Administration client are not removed.

Note The WebLogic domains which were created are not removed.

5. To remove the installer and the Administration client, enter the following:

Note All installer information is removed after this task.

- Windows

```
cd C:\Users\All Users\agile\installer\6.1.3\admin\apache-tomcat\bin
removeAgileTomcatService.bat
delete the directory "C:\Users\All Users\agile\installer\6.1.3"
```

- UNIX

```
su - <your e61 installation user>
cd agile/installer/6.1.3/admin/apache-tomcat/bin
./shutdown
cd $HOME
rm -r agile/installer/6.1.3
```

If the Agile e6.1.3.0 installation is removed from the server, the directory can be deleted. All components of the installation are removed.

Note When the deinstallation is completed, please also remove the respective database schemas which were used by the Agile e6 application/s.

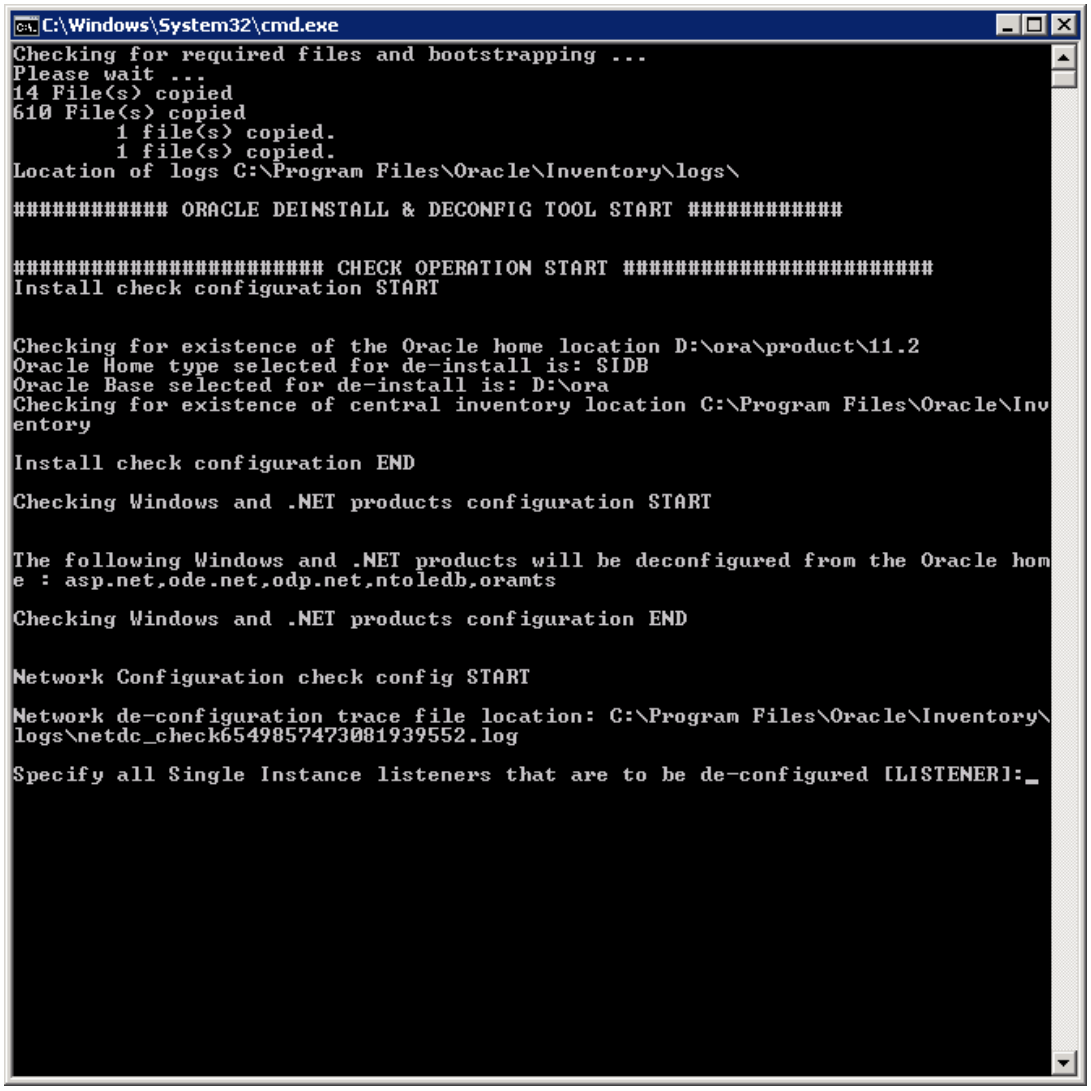
Oracle Database

Note It is not possible to uninstall Oracle 11gR2 database with Oracle Universal Installer shipped with 11gR1, or an earlier version. Oracle 11gR2 comes with a de-installation utility.

1. To uninstall Oracle 11gR2, start the script deinstall.bat in the directory %ORACLE_HOME%\deinstall.

Note Windows:

You have to be logged on as an administrator to run the script.



2. Specify all single instance listeners that are to be de-configured, as well as database names that are configured in this Oracle Home.

3. Confirm the de-installation with ‘y’.

   The $ORACLE_HOME directory will be deleted after de-installation.

Note If you have an improper Oracle installation, a second installation will fail. You have to uninstall Oracle and then try again.

Note For uninstalling the Oracle installation, please always use the provided de-installation tool. Make sure the de-installation was done correctly before trying to reinstall Oracle.

Oracle WebLogic Server

1. To remove the Agile e6 WebLogic domains, stop all running Agile e6 domains.

   For further instructions please refer to the Administration Guide for Agile e6.1.3.0.

2. Remove the directories of the Agile e6 domains in <*MIDDLEWARE HOME*>*user_projects**domains*.