

Oracle Agile Engineering Data Management

Server Installation Guide on Windows and UNIX

Release e6.2.1.0

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Oracle Agile Engineering Data Management/Server Installation Guide on Windows and UNIX for Agile, Release e6.2.1.0

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Contents

Preface	vii
Audience.....	vii
Documentation Accessibility	vii
Related Documents	vii
Conventions.....	vii
 1 Introduction	
Installation Components	1-1
Syntax in Entire Document	1-2
 2 Preparing the Installation	
Download	2-1
Further Preparation Steps	2-2
Windows	2-2
UNIX.....	2-2
Enable Trace (optional).....	2-2
Oracle Database	2-3
WebLogic Server	2-3
 3 Installation with the Agile e6 Installer	
Starting the Agile e6 Installer	3-1
Oracle Database	3-2
Oracle WebLogic Server.....	3-7
Agile e6 Server.....	3-8
Agile e6 AutoVue Integration Setup.....	3-18
 4 Component Based Installation	
Requirements	4-1
Available Components	4-1
File Server Installation	4-2
Vault Types.....	4-2
Installing Agile e6 Native Components	4-3
Installing Agile e6 J2EE Components	4-7
Creating the Application	4-10

5 Agile e6 Batch Installation

Introduction	5-1
Master Installation	5-3
Requirements	5-3
Create and update the batch properties file	5-4
Initialize the Batch Installation	5-5
Create the Master Oracle Wallet Packages	5-5
Encrypt Passwords	5-6
Update the installation.properties file with the encrypted passwords.....	5-7
Execute the Batch Installation.....	5-7
Clone Installation	5-8
Requirements	5-8
Create and Update batch property file	5-9
Initialize and Execute Batch Script.....	5-9
J2EE Installation	5-10
Requirements	5-10
Create and Update batch property file	5-10
Initialize and Execute the Batch Script	5-11
DFM Batch Installation	5-12
Requirements	5-12
Create and Update Batch Property File	5-13
Initialize Batch Installation	5-13
Create the DFM Oracle Wallet Package	5-13
Encrypt Passwords	5-14
Update the installation.properties file with the encrypted passwords.....	5-14
Execute the Batch Installation.....	5-14

6 Oracle Database 12c

Oracle Database Prerequisites 12c	6-1
Windows	6-1
UNIX.....	6-1
Setting Up an Oracle Operating System User	6-1
Setting Up the Shell Environment Variables for Oracle 12c.....	6-3
Free Up Disk Space in the /tmp Directory.....	6-4
Copying the Database Start and Stop Scripts for the Oracle Server.....	6-4
Installing Oracle Database Server 12c	6-4
Installing Oracle Database Client	6-12
Install Database Client Patch	6-19
Post-Installation Modifications for the Oracle Database 12c.....	6-20
Creating the Database	6-20
Configure the Listener	6-20
Configuring the Database Net Service Name	6-24
Create the Database	6-28
Configuring tnsnames.ora and sqlnet.ora	6-43
Modifying the Oracle Database	6-44
Create Directories for the Oracle Data Pump Utility.....	6-44
Create a Database User and Role.....	6-45

Using SQL to Create a Role	6-45
Using SQL to Create a User	6-45
Using Enterprise Manager Database Express to Create a User.....	6-45
Import the Database Dump	6-48
Compile All Invalid Objects in Schema PLM	6-49
Gather Statistics	6-49
Problems During Database Creation.....	6-50

7 Oracle Database 19c

Oracle Database Prerequisites 19c	7-1
Windows	7-1
UNIX.....	7-1
Setting Up an Oracle Operating System User	7-1
Free Up Disk Space in the /tmp Directory.....	7-3
Installing Oracle Database Server 19c	7-3
Installing Oracle Database Client.....	7-10
Installing Oracle Database Client Patch.....	7-15
Installation Example for Windows:	7-16
Installation Example for UNIX:	7-16
Post-Installation Configuration	7-16
NTLM is no longer enabled by default in 19c.....	7-16
Post-Installation Modifications for the Oracle Database 19c.....	7-16
Creating the Database	7-17
Configure the Listener	7-17
Configuring the Database Net Service Name	7-20
Create the Database	7-24
Configuring tnsnames.ora and sqlnet.ora	7-35
Modifying the Oracle Database	7-36
Create Directories for the Oracle Data Pump Utility.....	7-36
Create a Database User and Role.....	7-37
Using SQL to Create a Role	7-37
Using SQL to Create a User	7-37
Import the Database Dump	7-38
Compile All Invalid Objects in Schema PLM	7-38
Gather Statistics	7-39
Problems During Database Creation.....	7-39

8 Installing Oracle WebLogic Server

Windows Prerequisites	8-1
UNIX Prerequisites	8-1
Generic Prerequisites.....	8-2
Installation	8-2
Install Weblogic Patch for Generic Platform	8-10
Node Manager Configuration	8-11
Windows	8-11
UNIX.....	8-11

All Operating Systems	8-11
Production Certificate Setup	8-11
Demo Certificate Setup	8-11
Adaptation to the Node Manager Configuration.....	8-13

9 Verifying the Installation on UNIX

10 Uninstalling

EDM Server	10-1
Oracle Database.....	10-3
Oracle WebLogic Server	10-4

Preface

Agile PLM is a comprehensive enterprise PLM solution for managing your product value chain.

Audience

This document is intended for administrators and users of the Agile PLM products.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

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<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Related Documents

Oracle's Agile PLM documentation set includes Adobe® Acrobat PDF files. The Oracle Technology Network (OTN) website

<http://www.oracle.com/technetwork/documentation/agile-085940.html> contains the latest versions of the Agile PLM PDF files. You can view or download these manuals from the Web site, or you can ask your Agile administrator if there is an Agile PLM Documentation folder available on your network from which you can access the Agile PLM documentation (PDF) files.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.

Convention	Meaning
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Introduction

This guide describes how to install the Agile e6.2.1.0 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 64-Bit
(Refer to Platform Support for Agile e6.2.1.0 document for supported version)
- ? Oracle Database Client 32-bit
(Refer to Platform Support for Agile e6.2.1.0 document for supported version)
- ? Oracle WebLogic Server
(Refer to Platform Support for Agile e6.2.1.0 document for supported version)
- ? 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 e6.2.1.0

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 (e.g. fmw_12.2.1.3.0_wls.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	No
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	Yes

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 '\'. The path name on a UNIX operating system contains slashes '/'. The environment variable on a Windows operating system has to be placed between two percent '%' characters.	C:\Windows\system32
		/usr/bin
Environment Variables		echo %ORACLE_HOME%

Description	Example
The environment variable on a UNIX operating system has to be placed after a dollar '\$' character.	echo \$ORACLE_ HOME OR: echo \${ORACLE_ HOME}

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 e6.2.1.0) 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_e6210. 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 Server installation from Oracle Software Delivery Cloud (<https://edelivery.oracle.com>). The installation source has to be unpacked on the hard disk first.
- ? Oracle Client Release (32-bit) from Oracle Software Delivery Cloud (<https://edelivery.oracle.com>). Please select the related 32-bit 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 e6.2.1.0 is installed

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

- ? WebLogic media pack (Standard or Enterprise Edition depending on your licenses) 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

<https://docs.oracle.com/en/database/oracle/oracle-database/index.html>

WebLogic Server

For complete information on Oracle WebLogic Server, refer to the Oracle WebLogic Server Documentation Library at

<https://docs.oracle.com/en/middleware/index.html>

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 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

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

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

- b. Set the JAVA_HOME environment variable to the installed Java Development Kit. This has to be a 64-bit Java 8 Development Kit.

```
set JAVA_HOME=C:\Program Files\Java\jdk1.8.0_<update_number>
```

- c. Start the installer from the command shell with the following command:

```
gui.cmd
```

? UNIX

- a. Open a command shell and change to the installer directory
<installation-media-path>/installer.

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

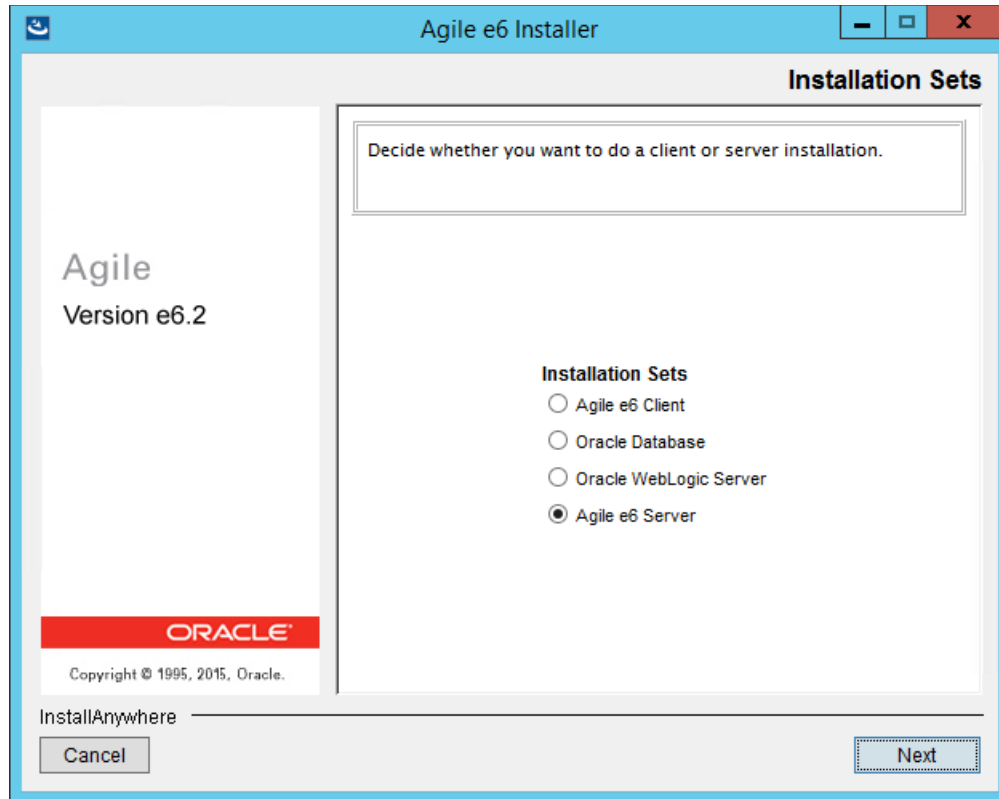
- b. Set the JAVA_HOME environment variable to the installed Java Development Kit. This has to be a 64-bit Java 8 Development Kit.

setenv JAVA_HOME /usr/local/java/jdk1.8.0_<update_number>

- c. Start the installer with the following command:

./gui.csh

2. The Installation Sets screen is opened.



Note: UNIX

Only the "Agile e6 Server" set is 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

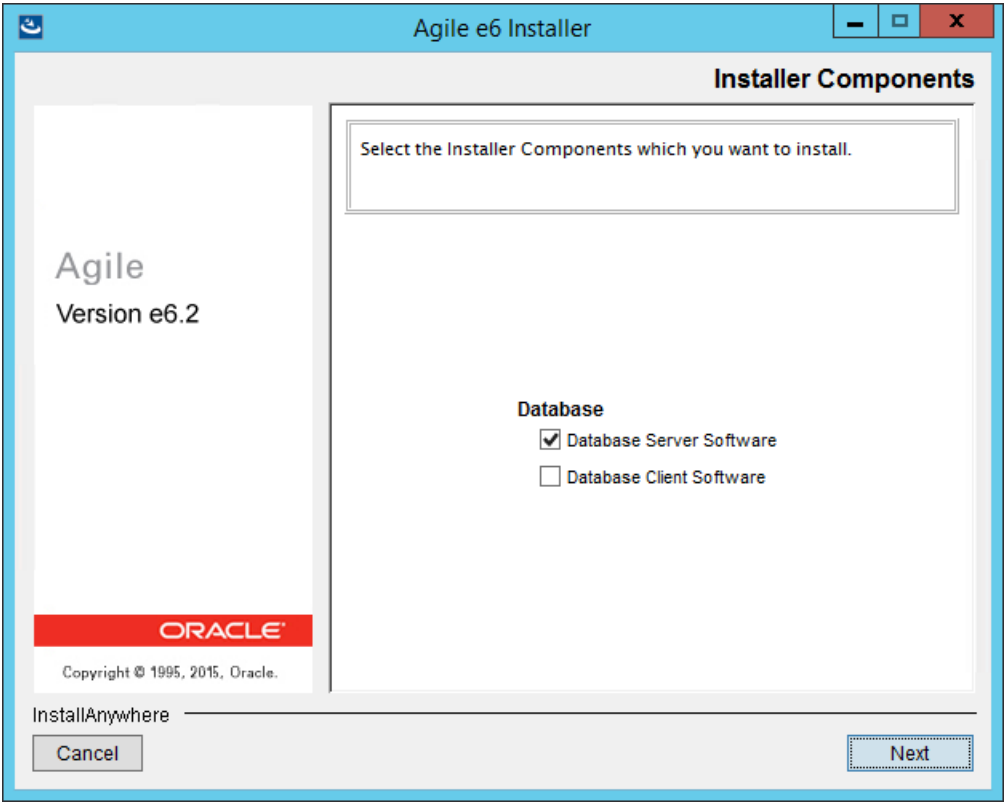
Note: The Agile e6.2.1.0 client installation is described in the Client Installation Guide on Windows for Agile e6.2.1.0.

Oracle Database

Note: This section is not available on a UNIX operating system. Please see Chapter 7, "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.



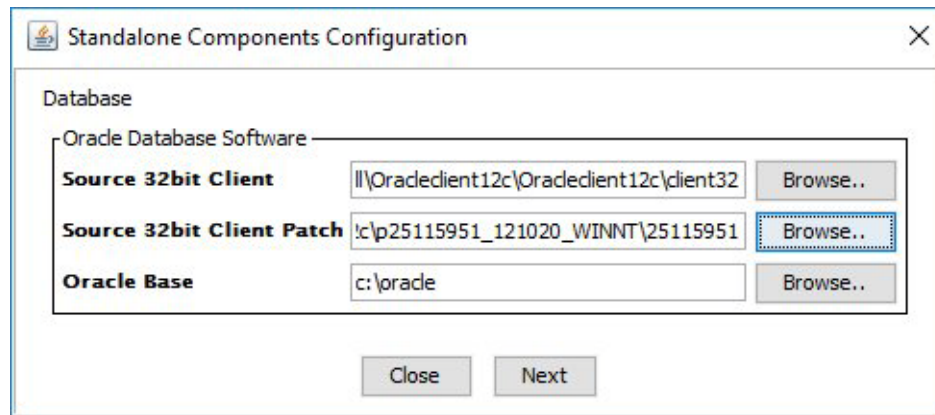
Component	Description
Database Server Software	Installs the Database Server Software and performs the instance setup.
Database Client Software	Installs the 32-bit Database Client Software. This is required on the machine where the EDM Server will be installed.

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

Note: It is possible to install either the Server or the Client Software.

Note: The Agile e6 GUI installer supports the installation of the Database Server - Enterprise Edition only. For the Standard Edition 2 follow the description in Chapter 7 "Installing Oracle Database Server"

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



Setting	Description
Source 32-bit Client	The source of the 32-bit Oracle client installation media.
Source 32-bit Client Patch	The source of the 32-bit Client patch 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.

Standalone Components Configuration

Database

Oracle Database Software

Source

d:\

Browse..

Oracle Base

c:\oracle

Browse..

Oracle Database Instance

Oracle Data1

c:\oracle\oradata1

Browse..

Oracle Data2

c:\oracle\oradata2

Browse..

Oracle Data3

c:\oracle\oradata3

Browse..

Oracle Data4

c:\oracle\oradata4

Browse..

Oracle Data5

c:\oracle\oradata5

Browse..

Redo Log 1

c:\oracle\redo1

Browse..

Redo Log 2

c:\oracle\redo2

Browse..

SID

plm62

Listener Port

1521

Enterprise Manager Port

5500

Database Size

Demo

Archive Mode

true

Archive Logs

c:\oracle\oraarch

Browse..

Processes

100

SYS Password

Verify Password

SYSTEM Password

Verify Password

Close

Next

Oracle Database Software Section

Setting	Description
Source	The source of the 64-bit 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 12cR1 the path should look like "C:/oracle") should be created.

Oracle Database Instance Section

Setting	Description
Oracle Data1-5	<p>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/plm62")</p> <p>Oracle Data1: CONTROL01.CTL, EDB_LOB01.DBF, EDB_TMPIDX01.DBF, EDB01.DBF</p> <p>Oracle Data2: CONTROL02.CTL , EDB_IDX01.DBF, EDB_TMP01.DBF</p> <p>Oracle Data3: CONTROL03.CTL, TEMP01.DBF</p> <p>Oracle Data4: UNDOTBS01.DBF</p> <p>Oracle Data5: SYSAUX01.DBF, SYSTEM01.DBF, TOOLS01.DBF, USERS01.DBF</p>
Redo Log 1-2	<p>The 2 sets of the database Redolog files will be stored on two disks.</p> <ol style="list-style-type: none"> 1. On location Redolog1 2. The copies on location Redolog2. <p>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/plm62").</p>
SID	The SID of the instance.
Listener Port	The port of the listener (default is 1521).
Enterprise Manager Port	The port number of the Oracle Enterprise Manager Database Express (default is 5500).
Database Size	<p>Depending on how big the database dump is, different values can be selected.</p> <p>Note: Further information can be found in the Hardware Sizing Guide for Agile e6.2.1.0.</p>
Archive Mode	<p>True:</p> <p>Activates the archive mode of the database (mandatory for production usage).</p> <p>False:</p> <p>Does not activate the archive mode for the database.</p>
Archive Logs	Destination of the archive log files.
Processes	<p>Depending on how many users will connect to the application, an appropriate value has to be applied here.</p> <p>Processes must be set to at least a number calculated with following formula:</p> $\text{number of concurrent user} * 2 + 50.$ <p>Depending on your application setup values can be higher.</p> <p>Note: Further information can be found in the Hardware Sizing Guide for Agile e6.2.1.0.</p>
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: This section is not available on a UNIX operating system. Please see Chapter 10 “Installing Oracle WebLogic Server” for the manual installation of the Oracle WebLogic Server

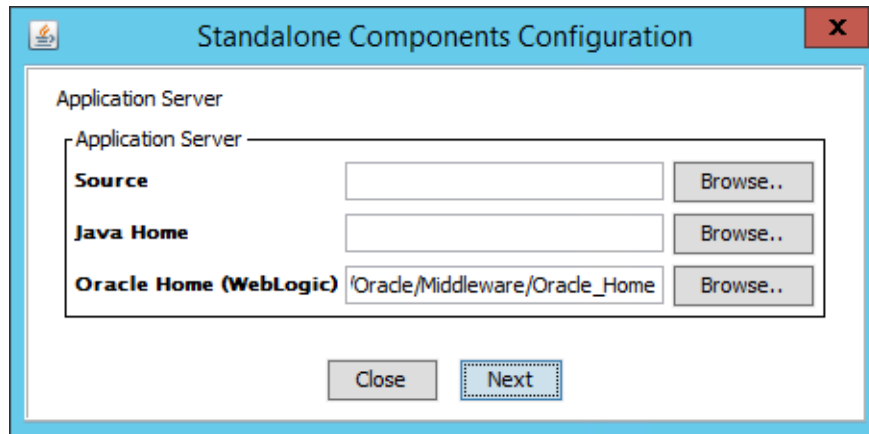
Note: The 64-bit Java 8 has to be installed before starting the Oracle WebLogic Server installation.

Note: The certified JDK for Oracle WebLogic 12.2.1.4 is jdk1.8.0_211 (it has to be 64-bit) or higher version. We recommend use latest JDK version.

1. Manually update the property file "iconstants.properties" in Agile e6.2.1.0 GA installer (<installation-media-path>\installer\properties directory) by either one of the following ways:
 - ? Modify the first line as described below
 - For Weblogic 12.2.1.3


```
PLM_INSTALLER_ORACLE_WLS_VERSION=12.2.1.3.0
```
 - For Weblogic 12.2.1.4


```
PLM_INSTALLER_ORACLE_WLS_VERSION=12.2.1.4.0
```
 - ? Copy iconstants.properties file from <RUP_Installer>\pkg\installer\properties directory to overwrite the old one under <installation-media-path>\installer\properties directory
2. Select Oracle WebLogic Server and click Next.
The Standalone Components Configuration screen is opened.
 - ? Screen on Windows.



Setting	Description
Source	The full path to the installer of the WebLogic server (e.g. fmw_12.2.1.3.0_wls.jar)
Java Home	Java 8 64-bit home directory which will be used for the installation and development of the WebLogic Server.
Oracle Home (WebLogic)	The Oracle Home where you want to install WebLogic, e.g.: Windows D:/Oracle/Middleware/Oracle_Home

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.

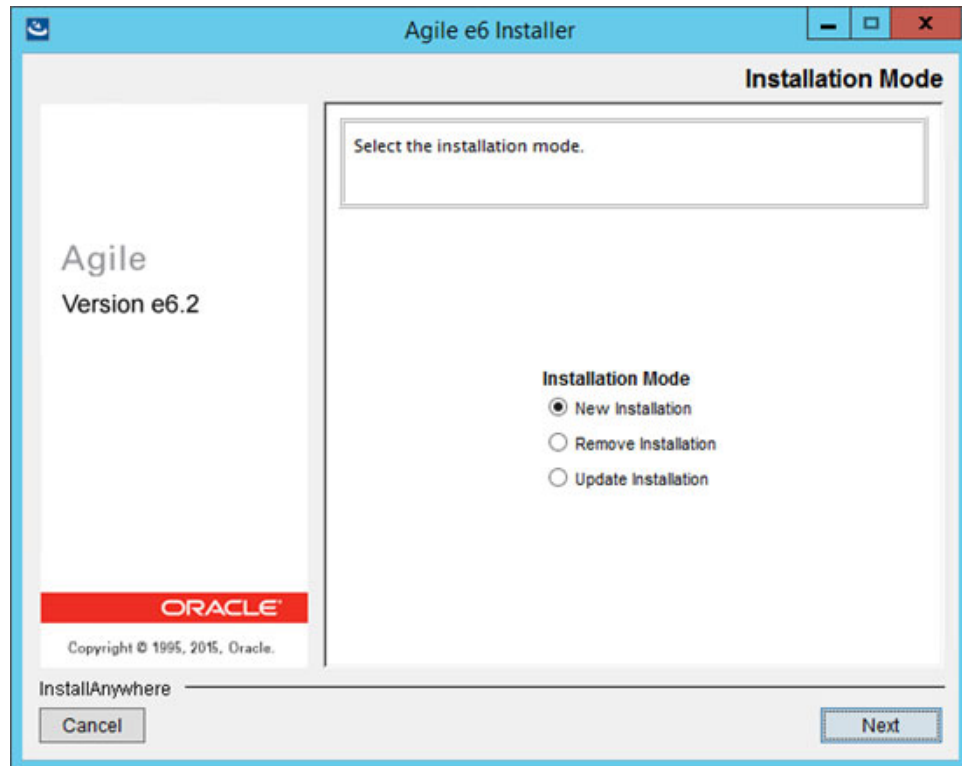
On Windows, backslash characters ('\'), which will be used while using the Browse button, are later internally replaced to slash characters ('/') while installing the WebLogic server.

- Define the component configuration options and click Next.
The WebLogic installation starts.
- 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

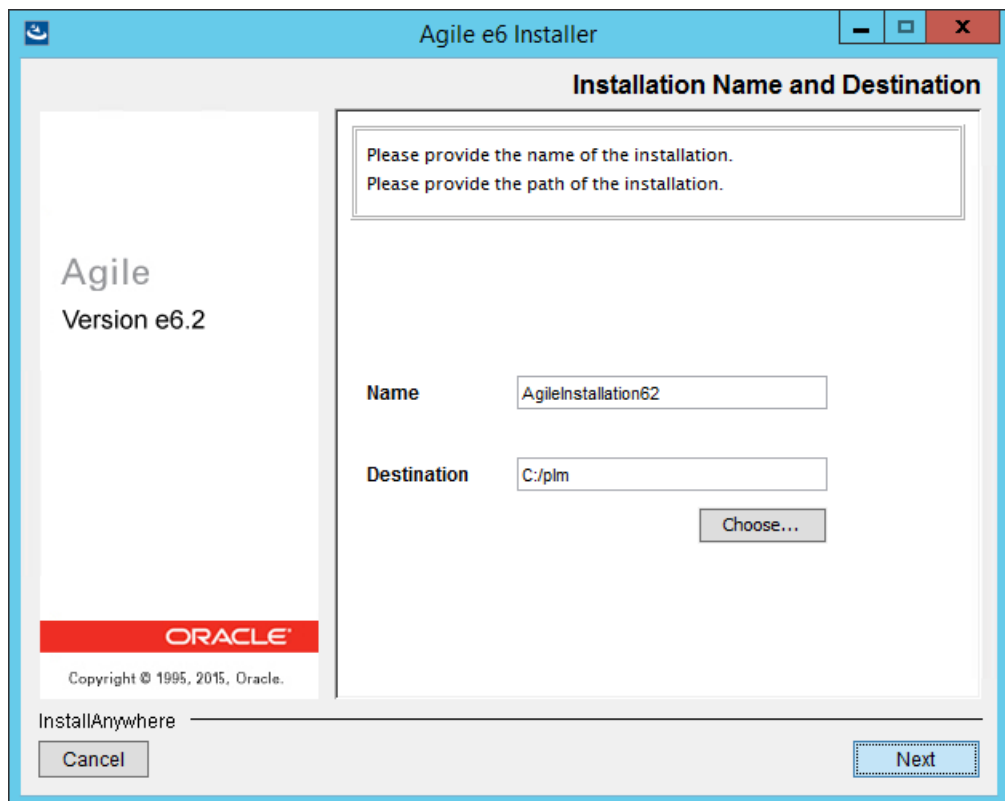
Note: Make sure the Node Manager is running.

- Select Agile e6 Server and click Next.
The Installation Mode screen is opened.



2. Select New Installation and click Next.

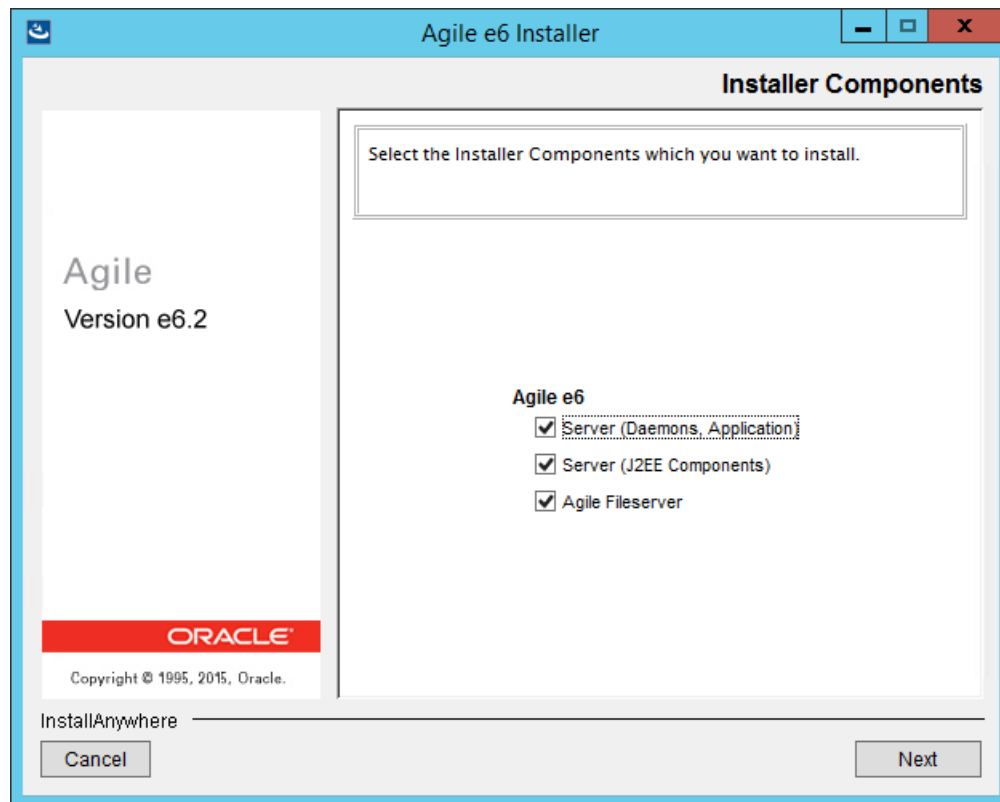
The Installation Name and Destination screen is opened.



Field	Description
Name	<p>Installation name.</p> <p>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.</p> <p>Note: The installation name can consist of ASCII characters and numbers, and no special characters.</p>
Destination	<p>Installation destination.</p> <p>Root path where Agile e6 is going to be installed. This has to be a non existing path.</p>

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

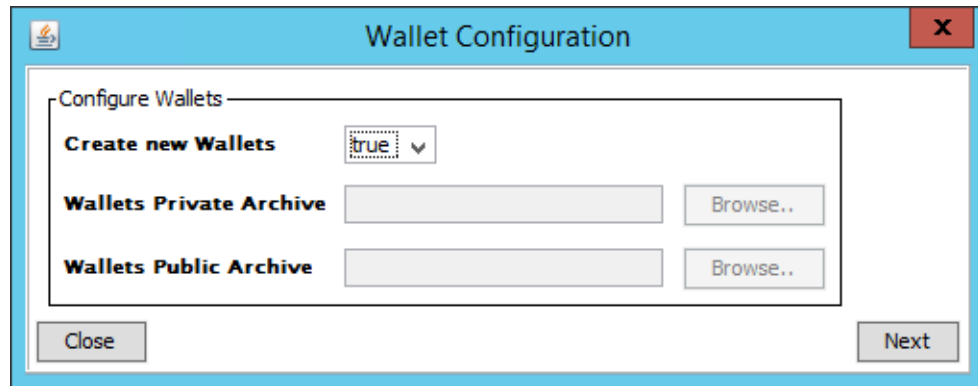
The Installer Components screen is opened.



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

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

The Wallet Configuration screen is opened.



Note: If you already created Wallet ZIP archives, you can set Create new Wallets to false and navigate to the Wallets Private and Public Archives.

Note: By default, the Create new Wallets field is set to true. That means that the paths to the Wallet's Private Archive and Wallet's Public Archive will be created and cannot be selected.

Path on Windows:

%ALLUSERSPROFILE%\agile\installer\6.2.1\wallets\installation\<Installation_Name>

Path on UNIX:

\${HOME}/.agile/installer/6.2.1/wallets/installation/<Installation_Name>

File name private Wallet: agile-edm-private-wallets.zip

File name public Wallet: agile-edm-public-wallets.zip

5. Click Next.

The Reference Configuration screen is opened.

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

The image shows a 'Reference Configuration' window with two main sections. The left section, 'Configure used Database Instance', contains fields for Client Home (C:\Oracle\product\12.1.0), SQLNet Connect (plm62), Host Name (db.example.com), SID, Listener Port (1521), Database User (plmref), Database Password, Verify Password, Import DB Dump (true), Create DB User (true), SYSTEM Password, and another Verify Password. The right section, 'Configure used WebLogic Server', contains fields for Oracle Home (WebLogic) (Oracle\Middleware\Oracle_Home) and Domain Root (cle_home/user_projects/domains). Both sections have 'Browse...' buttons. At the bottom are 'Close' and 'Next' buttons.

6. Configure used Database Instance section.

Setting	Description
Client Home	The Oracle database client 32-bit home directory.
SQLNet Connect	<p>The connect string as it is defined in your %ORACLE_HOME%\network\admin\tnsnames.ora file.</p> <p>The entries in tnsnames.ora look like:</p> <pre>MYCONNECTIONSTRING= (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = TCP)(HOST = MYDATA.MYCOMPANY.COM)(PORT = 1521))) (CONNECT_DATA = (SID = GOSL) (SERVER = DEDICATED)))</pre> <p>In this example The SQLNet connect string would be the first line: MYCONNECTIONSTRING.</p> <p>The tnsnames.ora file can be created and configured with Oracle Net Manager.</p> <p>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.</p>
Host Name	The host name of your database server.
SID	The SID of the database you want to connect to.
Listener 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	<p>Password of the Oracle database user.</p> <p>You only have to apply a value here if you want to create a new database user and selected that in the field above.</p>
Verify Password	The password entered above has to be repeated for verification.

7. 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.

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

8. 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.

The screenshot shows the 'Component Configuration' window for Agile e6. It is divided into four main sections:

- J2EE Installation Domain:** Fields include Domain Name (eSeries_domain), WebLogic Server Admin Port (7101), WebLogic Server Admin SSL Port (7102), Admin Password Installation Domain (masked), Verify Password (masked), WebLogic Server eSeries Port (7103), WebLogic Server eSeries SSL Port (7104), JavaDaemon Host Name (app.example.com), JavaDaemon Port (16087), FmsJavaDaemon Host Name (app.example.com), and FmsJavaDaemon Port (17087).
- Application:** Fields include Name (plmref), Http Host (app.example.com), Http Port (7103), J2EE Host (app.example.com), Business Service ECI Port (19997), Web Services ECI Port (19998), Plm 'manager' password (masked), and Verify Password (masked).
- Workflow Mail Settings:** Fields include Workflow Admin UIC (1001), Mail Server (mail.example.com), Mail Port Number (587), Mail Security (STARTTLS), SMTP User Name (smtpuser), SMTP User Password (masked), and Verify Password (masked).
- J2EE Application Domain:** Fields include WebLogic Server Admin Port (7105), WebLogic Server Admin SSL Port (7106), Admin Password Application Domain (masked), Verify Password (masked), WebLogic Server eSeries Port (7107), WebLogic Server eSeries SSL Port (7108), PLM Authenticator Password (masked), and Verify Password (masked).

At the bottom right, there are 'Close' and 'Next' buttons.

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	<p>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).</p> <p>This user needs a valid e-mail address as a test e-mail is send when starting the MESSENGER.</p> <p>The messenger does not work at all if this email is missing or wrong!</p>
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 Security	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.
SMTP User Name	User name if the Mail Authentication for your SMTP mail server is activated.
SMTP User 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.
Plm 'manager' password	Only available if "Import DB Dump" was selected in the step before. Apply the password which the plm 'manager' user of the created application should have.
Verify Password	Only available if "Import DB Dump" was selected in the step before. The password entered above has to be repeated for verification

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.

9. 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 for 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.

Java Daemon Section

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

Setting	Description
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 for 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 Service 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: EDM Server, Java, FMS Java, and Portmapper.
Unprivileged User PWD	Password for the above user. Note: The password has to comply with the Windows Password policy.
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. Note: The password has to comply with the Windows Password policy.
Verify Password	The password entered above has to be repeated for verification.

- 10.** When the daemon component configuration options are defined click Next.

The installation begins.

- 11.** 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.

Note: Further information about the AdminClient can be found in the Administration Guide for Agile e6.2.1.0.

Agile e6 AutoVue Integration Setup

If you want to use the Agile e6 AutoVue Integration, refer to the AutoVue Integration Installation and Administration Guide for Agile e6.2.1.0.

Component Based Installation

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

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 native components like Java 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.

Requirements

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

Available Components

Following components will be installed:

- ⌘ Administration Client
- ⌘ Java Daemon
- ⌘ FMS Java Daemon
- ⌘ Server libraries
- ⌘ File Server
- ⌘ Applications (plmref)

File Server Installation

Before starting the installation, be aware of the different Vault types.

Vault Types

? PUB (public)

Public vault with direct read access for all users via mounts or client programs. The file is saved with its original file name in the sub-directory 'pub'.

Write access is only given to ROOT and the File Server user. Every user has read access.

Note: File names in public vaults are by default in UTF-8 encoding.

If you already have public vaults on UNIX with ASCII encoding set the section[Vaults\Encodings] in the fileserver.cfg file as follows:

```
...
[Vaults]
FMS=fms/
EIF=area/
PUB=pub/
[Vaults\Encodings]
```

```
PUB=UTF-8
```

If the entry is missing, UTF-8 will be used. If you replicate public vaults, all vaults must have the same encoding setting.

Note: If you using public vaults with I18N file names you need to consider the limitation of the used file system. Some file systems support up to 255 characters and others only 255 bytes.

In the case of I18N characters one character can need up to 4 bytes.

If you have a mixed environment (Windows and UNIX file server) and you replicate public vaults be aware that files which can be checked-in into a Windows file server may not be able to be replicated to a UNIX file server, because of the file system limitations.

? FMS

Standard vault, encrypted machine-dependent vault (with predefined names).

Read and write access is only given to the ROOT and the File Server user.

? EIF

Extended storage area, encrypted machine-dependent vault (with cache directories); metafiles are created for each file.

Note: 'EIF' or 'PUB' must be on the same machine where the File Server will be executed.

Note: We strongly advise you not to use any mounted hard discs as vaults. If you do so, you lose performance and reliability, and producing a lot of unnecessary net traffic.

All needed and mentioned sub-directories will be created when starting the File Server for the first time.

All vaults can be handled by a single executable, the File Server itself. Therefore, we recommend to use only one File Server executable on one computer, because a thread will be created with each request.

If you enable the logging mechanism of the File Server, be aware that there might be confidential information contained. You should restrict the read/write access.

Windows systems only support NTFS drives!

After the installation on Windows the File Server is started automatically. On UNIX you need to start the File Server manually with the provided start script on UNIX.

This script can be used to start/stop the file server.

```
./fmssrv start
```

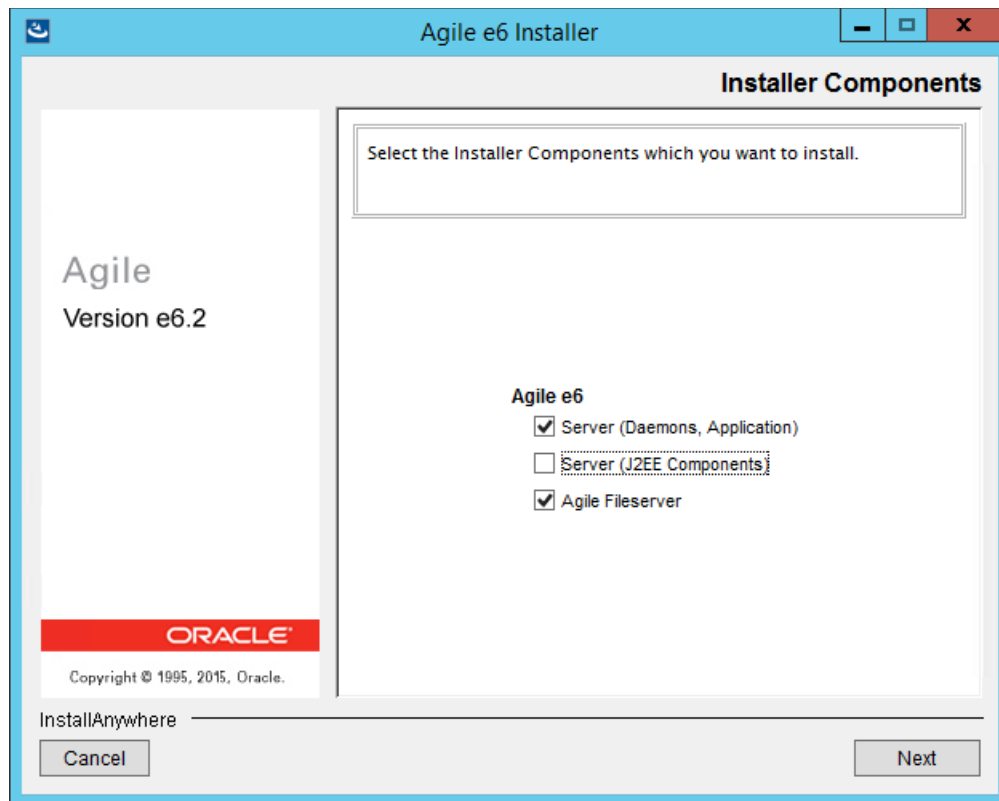
Installing Agile e6 Native Components

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.

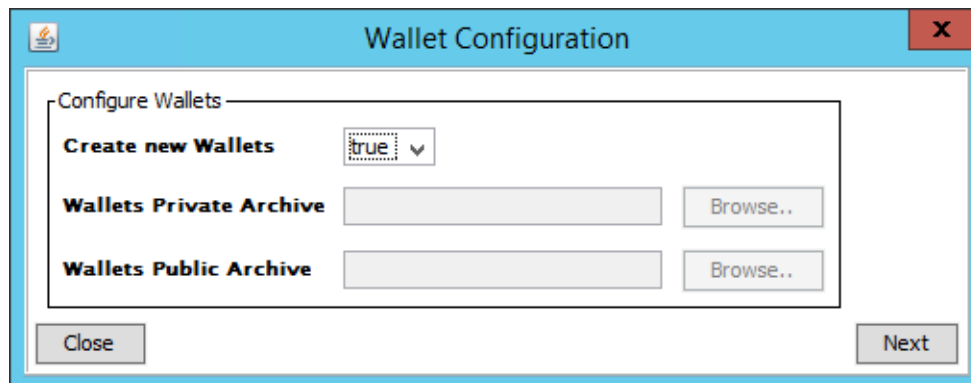
Note: WebLogic server installation is not required.

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. Click Next.
The Wallet Configuration screen is opened.



Note: By default, the Create new Wallets field is set to true. That means that the Wallet's Private Archive and Wallet's Public Archive will be created and cannot be selected.

Path on Windows:

%ALLUSERSPROFILE%\agile\installer\6.2.1\wallets\installation\<Installation_Name>

Path on UNIX:

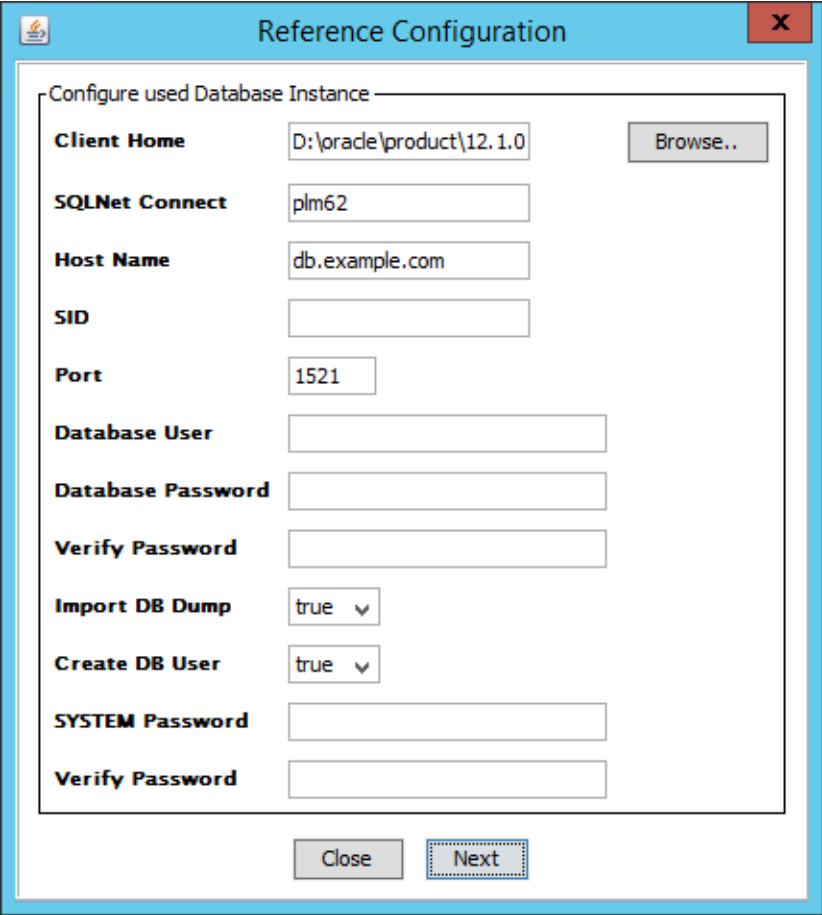
\${HOME}/.agile/installer/6.2.1/wallets/installation/<Installation_Name>

Note: If only installing the "Agile Fileserver" on a Windows server, you can either create a new set of wallets or use the existing wallets from another server. A wallet is only used once to create the runtime user or to configure the Windows service to use an existing runtime user. The wallets are not needed to install only the "Agile Fileserver" on an UNIX OS.

Note: The "Server (J2EE Component)" only installation requires to use the same wallets from the "Server (Daemons, Application)" installation.

5. Click Next.

The Reference Configuration screen is opened.



The image shows a 'Reference Configuration' dialog box with a blue title bar and a red close button. The dialog contains a section titled 'Configure used Database Instance' with several input fields and buttons. The fields are: Client Home (D:\prade\product\12.1.0), SQLNet Connect (plm62), Host Name (db.example.com), SID (empty), Port (1521), Database User (empty), Database Password (empty), Verify Password (empty), Import DB Dump (true), Create DB User (true), SYSTEM Password (empty), and Verify Password (empty). There are 'Browse..' and 'Next' buttons, and a 'Close' button at the bottom.

Configure used Database Instance	
Client Home	D:\prade\product\12.1.0 Browse..
SQLNet Connect	plm62
Host Name	db.example.com
SID	
Port	1521
Database User	
Database Password	
Verify Password	
Import DB Dump	true
Create DB User	true
SYSTEM Password	
Verify Password	

Close Next

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.

6. When the reference configuration options are defined, click **Next**.
7. 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
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 WebLogic is running (the WebLogic server host name).
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

Note: Refer to "Oracle WebLogic Server" section under Chapter 3 "Installation with the Agile e6 Installer" to install Agile e6.2.1.0 with Oracle WebLogic Server.

Following components will be installed:

- ? Administration Client
- ? Staging directory (see section "Deploying Customer Adapted Files" in the Administration Guide for Agile e6.2.1.0)
- ? Applications (plmref)
- ? WebLogic Domains containing deployments

To install Agile e6 J2EE components:

Note: For the installation you need to copy the private Wallet from the Agile EDM Server to the J2EE server.

Please make sure that nobody but the installation user has access rights to the ZIP archive.

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

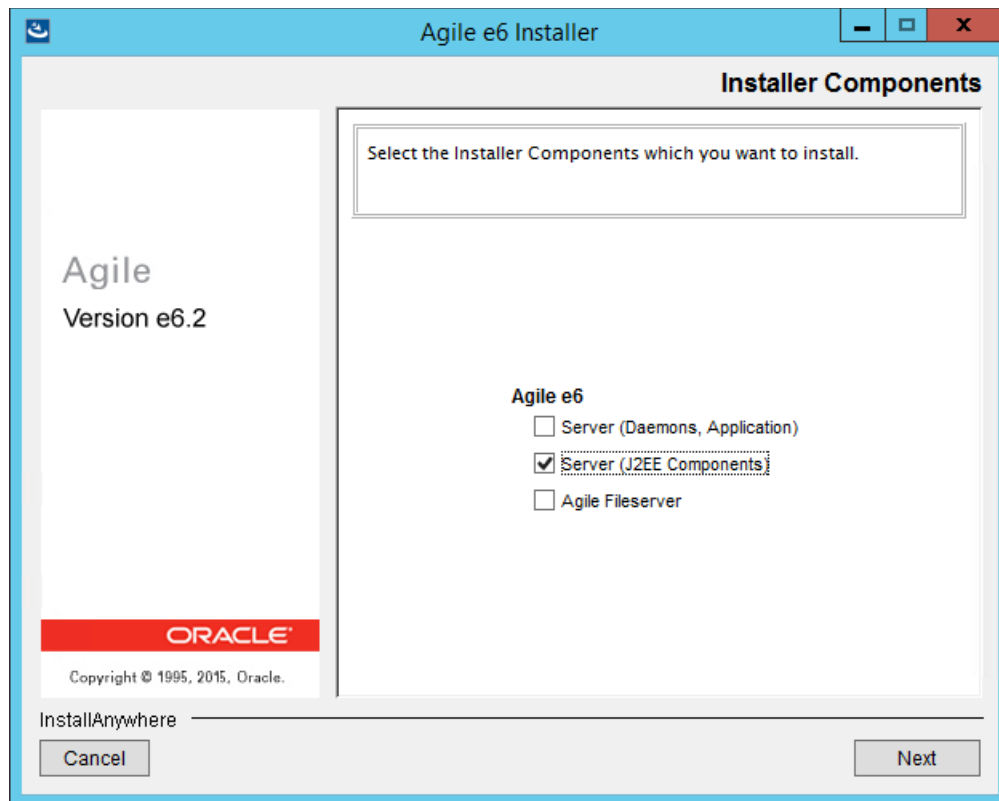
Note: You have to use the WebLogic installation user to install the Agile e6 J2EE components.

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. By default, all options are selected.

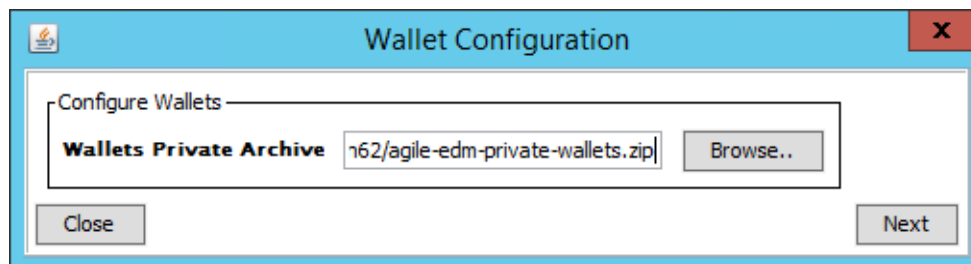
3. Deselect Server (Daemons, Application) and Agile Fileserver.



This will prevent the setup of the "Agile e6 Native Components".

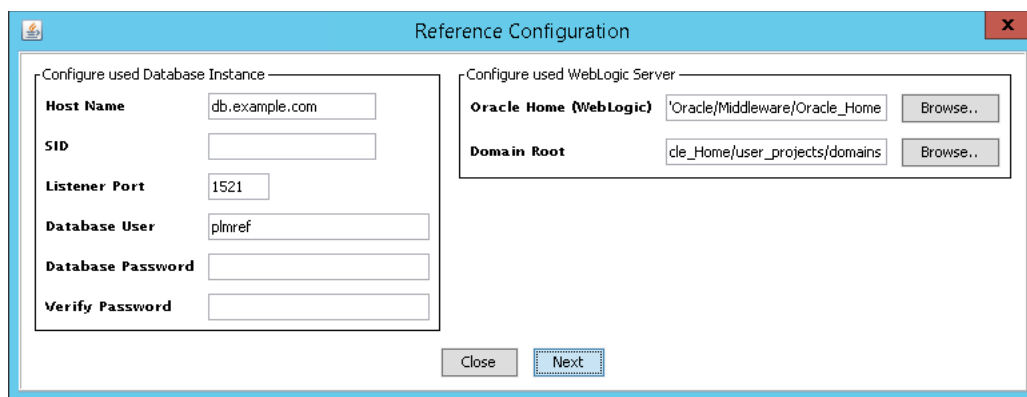
4. Click Next

The Wallet Configuration screen is opened.



5. On the J2EE server, select the path to the archive of the private Wallet, which was generated on the Agile EDM Server.
6. Click Next.

The Reference Configuration screen is opened.



Reference Configuration

Configure used Database Instance

Host Name: db.example.com

SID:

Listener Port: 1521

Database User: plmref

Database Password:

Verify Password:

Configure used WebLogic Server

Oracle Home (WebLogic): 'Oracle/Middleware/Oracle_Home' Browse..

Domain Root: de_Home/user_projects/domains Browse..

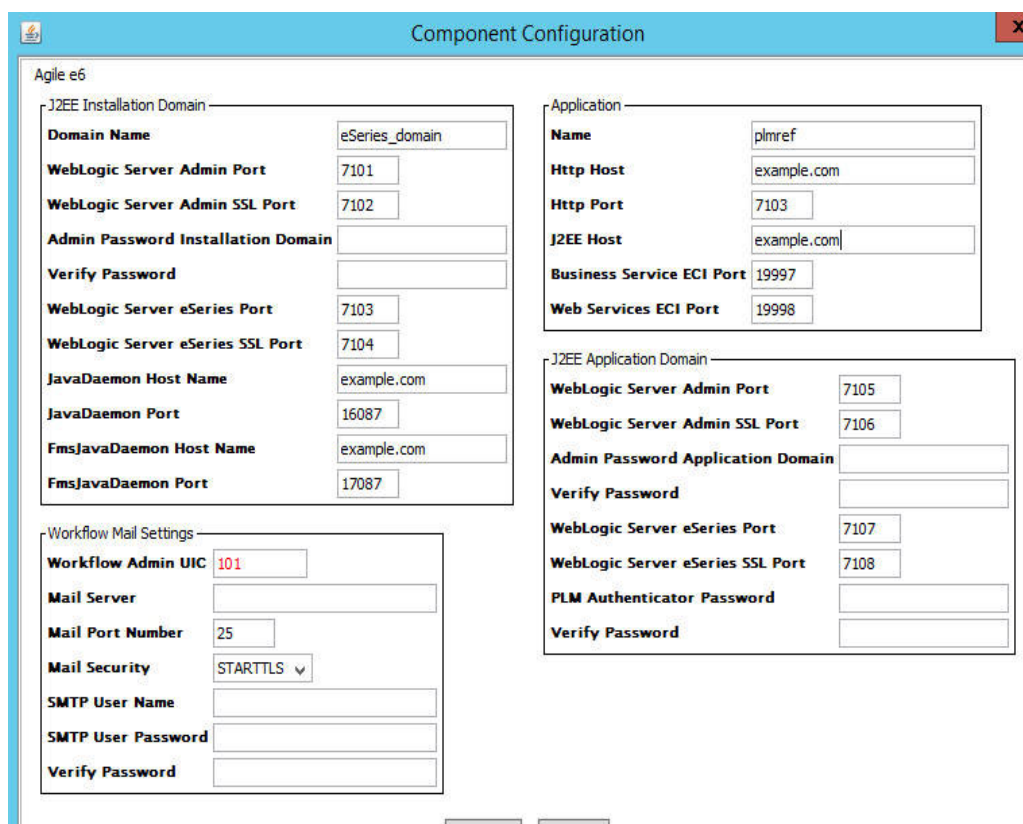
Close Next

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.

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

The Component Configuration screen is opened.



Component Configuration

Agile e6

J2EE Installation Domain

Domain Name: eSeries_domain

WebLogic Server Admin Port: 7101

WebLogic Server Admin SSL Port: 7102

Admin Password Installation Domain:

Verify Password:

WebLogic Server eSeries Port: 7103

WebLogic Server eSeries SSL Port: 7104

JavaDaemon Host Name: example.com

JavaDaemon Port: 16087

FmsJavaDaemon Host Name: example.com

FmsJavaDaemon Port: 17087

Workflow Mail Settings

Workflow Admin UIC: 101

Mail Server:

Mail Port Number: 25

Mail Security: STARTTLS

SMTP User Name:

SMTP User Password:

Verify Password:

Application

Name: plmref

Http Host: example.com

Http Port: 7103

J2EE Host: example.com

Business Service ECI Port: 19997

Web Services ECI Port: 19998

J2EE Application Domain

WebLogic Server Admin Port: 7105

WebLogic Server Admin SSL Port: 7106

Admin Password Application Domain:

Verify Password:

WebLogic Server eSeries Port: 7107

WebLogic Server eSeries SSL Port: 7108

PLM Authenticator Password:

Verify Password:

Previous Next

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

8. 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.

9. 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

Application Input Form

Name:	<input type="text" value="pinref"/>
Database User:	<input type="text" value="pinref"/>
Database Password:	<input type="password" value="*****"/>
Confirm Database Password:	<input type="password" value="*****"/>
WebLogic Server Admin Port:	<input type="text" value="7111"/>
WebLogic Server Admin SSL Port:	<input type="text" value="7112"/>
Admin Password Application Domain:	<input type="password" value="*****"/>
Confirm Admin Password Application Domain:	<input type="password" value="*****"/>
WebLogic Server eSeries Port:	<input type="text" value="7113"/>
WebLogic Server eSeries SSL Port:	<input type="text" value="7114"/>
Business Service ECI Port:	<input type="text" value="20997"/>
Web Services ECI Port:	<input type="text" value="20998"/>
Workflow Admin UI:	<input type="text"/>
Mail Server:	<input type="text"/>
Mail Port Number:	<input type="text" value="587"/>
Mail Security:	<input type="text"/>
SMTP User Name:	<input type="text"/>
SMTP User Password:	<input type="password"/>
Confirm SMTP User Password:	<input type="password"/>
PLM Authenticator Password:	<input type="password" value="*****"/>
Confirm PLM Authenticator Password:	<input type="password" value="*****"/>

References

Application Server:	<input type="text" value="weblogic"/>
Database:	<input type="text" value="oradb"/>

NATIVE Application Creation

Application Input Form

Name:	<input type="text" value="pinref"/>
Database User:	<input type="text" value="pinref"/>
Database Password:	<input type="password" value="*****"/>
Confirm Database Password:	<input type="password" value="*****"/>
J2EE Host:	<input type="text" value="<j2ee_server_hostname>"/>
Http Host:	<input type="text" value="<j2ee_server_hostname>"/>
Http Port:	<input type="text" value="7103"/>
Business Service ECI Port:	<input type="text" value="20997"/>
Web Services ECI Port:	<input type="text" value="20998"/>
Import DB Dump:	<input type="text" value="false"/>
Create DB User:	<input type="text" value="false"/>
SYSTEM Password:	<input type="password"/>

References

Database:	<input type="text" value="oradb"/>
-----------	------------------------------------

Agile e6 Batch Installation

This chapter describes the batch installation of the Agile e6 Server components. As the Agile e6.2.1.0 installer is fully batch enabled, all installation tasks can be done in batch mode with the batch scripts `batchinstall.csh` and `batchinstall.cmd` which can be found in the directory (`<installation-media-path>\installer`)

Introduction

As described in the previous chapters, you can either do a complete Agile e6 installation with native EDM Server, File Server and WebLogic domains or a component-based installation installing certain components individually.

In Batch mode you can do a Master Installation for all components or for certain components which is defined by the respective parameters. In addition you can copy an existing Master Installation (Clone Installation) or execute a J2EE Installation or DFM site installation.

Note: The Clone and J2EE Installation require a Master Installation first to create the respective wallets/encrypted password needed when running the batch installation.

The following parameters are available

Parameter	Components
ALL	The native EDM Server, File Server and WebLogic domains with all deployments.
E6S	The native EDM Server.
E6F	The native EDM Server and the File Server.
E6J	The native EDM Server and WebLogic domains with all deployments.
DFM	The File Server, FMS Java Daemon, and the Tomcat server with the DFM deployments.
FMS	The File Server.
J2EE	The WebLogic domains with all deployments.

Before you can run a Batch Installation, you need to adapt your specific installation attributes in the properties file.

We recommend using the templates provided in the folder `<install-media-path>/installer/properties` to make sure that all attributes are included / defined in the respective properties file. If attributes are missing, the batch installation might not be successful and needs to re-run.

The following list shows all Batch Installation parameters and the related properties template.

Parameter	Example properties file
ALL	tpl_installation.properties
E6S	tpl_installation.properties
E6F	tpl_installation.properties
E6J	tpl_installation.properties
DFM	examples/batch_install_dfm.properties
FMS	examples/batch_install_fms.properties
J2EE	tpl_installation.properties

Depending on the selected parameter, you need to define the respective properties in the properties file:

Note: When initially adapting the properties file, leave any <password> attributes empty as they will be updated later with encrypted passwords created by the EPKEYTOOL in connection with creating wallets. More information on wallets and encrypted passwords can be found in the Agile EDM Security Guide.

Property	Description
plm.databasedefinition.dbhost	Host name of the Oracle 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.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.

Property	Description
plm.inst.wallets.private.archive	Master or DFM Batch Installations - Full path (incl. filename) for the to be created private wallets archive. Clone or J2EE Batch Installations - Full path (incl. filename) to the existing private wallets archive from the Master installation.
plm.inst.wallets.public.archive	Master Installation- Full path (incl. filename) for the to be created public wallets archive. Clone, J2EE or DFM Batch Installations - Full path (incl. filename) to the existing public wallets archive from the Master installation.
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: EDM Server, Java, FMS Java, and Portmapper.
plm.application.managerpassword	Apply the password which the plm 'manager' user of the created application should have. This password property must only be defined if you define property "plm.application.dumpimport=true".
plm.applicationserverdefinition.ora_inventory_unix_group	Not used on Windows. Please see the UNIX section below. Please remove the <CHANGETHIS> from the entry on Windows.

After having defined your properties file, you can call your batch script with the following components.

Windows: batchinstall.cmd <properties files><components>
 Unix: batchinstall.csh <properties files><components>

Note: The parameter INIT has to be executed once before using the parameters WALLET or DFMWALLET. You can then use the other parameters listed below.

The WALLET option must also be executed while doing a J2EE component based installation. This will set up the wallets which are required when using the Administration Client.

Parameter	Components
INIT	Initial task which has to be executed once for an installation.
WALLET	Create the required server wallets.
DFMWALLET	Create the required wallets for a DFM site.

Master Installation

With the Master Installation, the native EDM Server, File Server and WebLogic domains with all deployments are installed in batch mode.

Requirements

- All prerequisites mentioned in the Prerequisite Guide for Agile are met before performing the batch installation.

- 7 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 (Component-based Installation).
- 7 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 Complete Installation).

Create and update the batch properties file

Windows

1. Copy the example property file from <installation-media-path>/installer/properties/tpl_installation.properties to
<installation-media-path>/installer/properties/installation.properties

This file contains the default values for a Windows batch installation

Note: Use double backslashes for plm.inst.root, plm.applicationserverdefinition.mw_home, and plm.applicationserverdefinition.domain_root on Windows:

e.g. plm.inst.root=C:\\plm621

Use quadruple backslashes for plm.fileserver.destination on Windows

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

2. Enter the values for all properties with value <CHANGETHIS> but leave any parameters <password...> empty as these will be added later. .

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

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

3. Check if the remaining values match your environment and/or change the values if you do not want to use the default values.

UNIX

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

Property	Description
plm.inst.root	The destination directory for the Agile e6 installation.
plm.databaseconnection.client_home	The path to the existing 32-bit Oracle 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

Property	Description
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.

Initialize the Batch Installation

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 64-bit Java 8 Development Kit.

```
set JAVA_HOME=C:\Program Files\Java\jdk1.8.0_<update_number>
```
3. Execute the following command in your previously opened command shell:

```
batchinstall.cmd properties/installation.properties INIT
```

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 64-bit Java 8 Development Kit.

```
setenv JAVA_HOME /usr/local/java/jdk1.8.0_<update_number>
```
3. Execute the following command in your previously opened csh shell:

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

The log files can be found in the directory

Windows: %ALLUSERSPROFILE%\agile\installer\6.2.1\log

Unix: \${HOME}/.agile/installer/6.2.1/log

Create the Master Oracle Wallet Packages

Note: For more information about wallets refer to the Agile EDM Security Guide

1. Edit the installation.properties file and change the following properties
 - ? plm.inst.wallets.private.archive=<Full path (incl. filename) for the newly created private wallets archive>
 - ? plm.inst.wallets.public.archive=<Full path (incl. filename) for the to be created public wallets archive>

Example:

```
plm.inst.wallets.private.archive=C:\\temp\\installer\\wallets\\agile-edm-private-wallets.zip
plm.inst.wallets.public.archive=C:\\temp\\installer\\wallets\\agile-edm-public-wallets.zip
```

2. Execute the following command in your command shell:

Windows:

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

UNIX:

```
./batchinstall.csh properties/installation.properties WALLET
```

This command creates the master Oracle wallet packages which you must use for the other installation modes (Clone, J2EE, DFM).

- The agile-edm-private-wallets.zip contains the master Oracle wallets (Including the private keys). This ZIP file must be protected against unauthorized access! Use secure transfer methods when you install other servers.
- The agile-edm-public-wallets.zip contains the public key of the master server Oracle wallet.

Encrypt Passwords

Some of the properties which you have to change in the installation.properties file are passwords.

You have to enter them encrypted to secure your installation. The Agile e6 installer package provides the epkeytool to encrypt sensitive data.

To encrypt your passwords call the following command script:

Windows:

```
tools\\bin\\epkeytool.bat -encryptpwd -keyStore
file://%ALLUSERSPROFILE%\\agile\\installer\\6.2.1\\wallets\\installation\\AgileInstallation62\\wallet\\private\\server\\cwallet.sso -keyAlias orakey
```

The epkeytool prompts for the password to encrypt and copies them to the clipboard.

UNIX:

```
tools/bin/epkeytool.sh -encryptpwd -keyStore
file://${HOME}/.agile/installer/6.2.1/wallets/installation/AgileInstallation62/wallet/private/server/cwallet.sso -keyAlias orakey
```

The epkeytool prompts for the password to encrypt and prints the encrypted password in the command shell.

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.

Update the installation.properties file with the encrypted passwords

1. Open the property file from
<install-media-path>/installer/properties/installation.properties.
2. Copy the encrypted password to the correct place in the installation.properties file.
 - ? plm.application.adminserver_password
 - ? plm.application.dbpassword
 - ? plm.application.mail_auth_password
 - ? plm.application.plm_auth_provider_password
 - ? plm.j2eeappserver.adminserver_password
 - ? plm.userdefinition.priv_password
 - ? plm.userdefinition.unpriv_password
 - ? plm.application.managerpassword
 - ? plm.javadaemon.admpwd

Execute the Batch Installation

1. Execute the following command in your command shell:

Windows:

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

UNIX:

```
./batchinstall.csh properties/installation.properties ALL
```

The complete server installation is executed and will take about 20 min.

A log file, installation.log is created in the directory
%ALLUSERSPROFILE%\agile\installer\6.2.1\log. It will be overwritten every time you will
call batchinstall.cmd again.

After the installation the following Agile6 environments are created:

Windows Services	<p>Following Windows Services are available but not started:</p> <ul style="list-style-type: none"> ? AgilePLM_FileService ? AgilePLM_JavaDaemon ? AgilePLM_FMS_JavaDaemon ? AgilePLM_Portmapper
WegLogic Domains	<p>During the installation, 2 domains were created. Each domain consists of an AdminServer and an Agile eSeries-01 server.</p> <ul style="list-style-type: none"> ? The AdminServer is only for the administration of the domain. ? The Agile eSeries-01 servers contain the Agile e6 deployments. <p>The domains directory, as defined in plm.applicationserverdefinition.domain_root, contains the domains eSeries_domain, and eSeries_domain_plmref.</p>

Ports	E6 AdminClient -> 8080 Java Daemon -> 16087 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: <a href="https://<servername>:7104/Jacc/jacc.jnlp">https://<servername>:7104/Jacc/jacc.jnlp Web Client: <a href="https://<servername>:7104/AgilePlmWps">https://<servername>:7104/AgilePlmWps DaemonAdminServlet: <a href="https://<servername>:7104/DaemonAdminServlet">https://<servername>:7104/DaemonAdminServlet HTTPSupport: <a href="https://<servername>:7104/plm-api-axis/services">https://<servername>:7104/plm-api-axis/services AdminClient: <a href="http://<servername>:8080/AdminClient">http://<servername>:8080/AdminClient WebLogic Admin Console: eSeries_domain: <a href="https://<servername>:7102/console">https://<servername>:7102/console eSeries_domain_plmref: <a href="https://<servername>:7106/console">https://<servername>:7106/console

Clone Installation

If you want to create another server installation based on the master installation, use the Clone Installation option.

Requirements

- ? All prerequisites mentioned in the Prerequisite Guide for Agile are met before performing the batch installation.
- ? 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.
- ? 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.
- ? To create another server installation based on the master installation you need to copy three files from your master installation:
 - ? installation.properties
 - ? agile-edm-private-wallets.zip

? agile-edm-public-wallets.zip

Create and Update batch property file

1. Copy the `tpl_installation.properties` file from `<installation-media-path>/installer/properties/tpl_installation.properties` to `<installation-media-path>/installer/properties/installation.properties`.
2. Edit the `installation.properties` file and change the following properties
 - ? `plm.inst.wallets.private.archive=<Full path (incl. filename) to the existing private wallet archive>`
 - ? `plm.inst.wallets.public.archive=<Full path (incl. filename) to the existing public wallets archive>`

Example:

```
plm.inst.wallets.private.archive=C:\\temp\\installer\\wallets\\agile-edm-private-wallets.zip
plm.inst.wallets.public.archive=C:\\temp\\installer\\wallets\\agile-edm-public-wallets.zip
```

3. Check the host names and ports in the `installation.properties` file and change them to meet your infrastructure.

For example the following host settings should point to the server where you execute the installation:

```
? plm.j2eeappserver.jadehost
? plm.j2eeappserver.fmsjadehost
? plm.application.j2eehost
? plm.application.httphost
```

There might be some additional host settings that need to be adapted.

4. Deactivate the DUMP import copying the **installation.properties** file to the **<install-media-path>/installer/properties** folder and change the following line:

```
plm.application.dumpimport=false
```

Initialize and Execute 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 64-bit Java 8 Development Kit.


```
set JAVA_HOME=C:\Program Files\Java\jdk1.8.0_<update_number>
```
3. Execute the following command in your previously opened command shell:


```
batchinstall.cmd properties\installation.properties INIT
```
4. Execute the following command in your previously opened command shell:


```
batchinstall.cmd properties\installation.properties WALLET
```
5. Execute the following command in your previously opened command shell:


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

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 64-bit Java 8 Development Kit.

```
setenv JAVA_HOME /usr/local/java/jdk1.8.0_<update_number>
```
3. Execute the following command in your previously opened csh shell:

```
./batchinstall.csh properties/installation.properties INIT |& tee  
installation.log
```
4. Execute the following command in your previously opened csh shell:

```
./batchinstall.csh properties/installation.properties WALLET |& tee  
installation.log
```
5. Execute the following command in your previously opened csh shell:

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

The clone installation is executed.

A log file, installation.log is created in the directory
%ALLUSERSPROFILE%\agile\installer\6.2.1\log. It will be overwritten every time you will call batchinstall.cmd again.

After the installation the same Agile6 environments are created as described in the Master Installation above.

J2EE Installation

This component-based installation will install the WebLogic domains with all deployments on your a separate server.

Requirements

- ? All prerequisites mentioned in the Prerequisite Guide for Agile are met before performing the batch installation.
- ? 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.
- ? 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.
- ? To create a J2EE installation based on the master installation you need to copy the following three files from your master installation
 - ? installation.properties
 - ? agile-edm-private-wallets.zip
 - ? agile-edm-public-wallets.zip

Create and Update batch property file

1. Copy the installation.properties file (template: tpl_installation.properties) to the folder <install-media-path>/installer/properties
2. Edit the installation.properties file and change the following properties

- ? `plm.inst.wallets.private.archive=<Full path (incl. filename) to the existing private wallet archive>`
- ? `plm.inst.wallets.public.archive=<Full path (incl. filename) to the existing public wallets archive>`

Example:

```
plm.inst.wallets.private.archive=C:\\temp\\installer\\wallets\\agile-edm-private-wallets.zip
plm.inst.wallets.public.archive=C:\\temp\\installer\\wallets\\agile-edm-public-wallets.zip
```

3. Check the host names and ports in the `installation.properties` file and change them to meet your infrastructure.

For example the following host settings should point to the server where you execute the installation:

- ? `plm.j2eeappserver.jadehost`
- ? `plm.j2eeappserver.fmsjadehost`

For example the following host settings should point to an Agile e6 native server which should be used from your J2EE installation:

- ? `plm.j2eeappserver.jadehost`
- ? `plm.j2eeappserver.fmsjadehost`

There might be some additional host settings that need to be adapted.

4. Deactivate the DUMP import copying the **installation.properties** file to the **<install-media-path>/installer/properties** folder and change the following line:

```
plm.application.dumpimport=false
```

Initialize and Execute the Batch Script

Windows

1. Open an Administrative command shell and change to the installer directory:
2. Set the `JAVA_HOME` environment variable to the installed Java Development Kit. This has to be a 64-bit Java 8 Development Kit.

```
set JAVA_HOME %usr%\local\java\jdk1.8.0_<update_number>
```

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

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

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

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

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

```
batchinstall.cmd properties\installation.properties J2EE
```

UNIX

1. Open a csh shell and change to the installer directory:
2. Set the `JAVA_HOME` environment variable to the installed Java Development Kit. This has to be a 64-bit Java 8 Development Kit.

```
setenv JAVA_HOME /usr/local/java/jdk1.8.0_<update_number>
```

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

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

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

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

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

```
./batchinstall.csh properties/installation.properties J2EE |& tee  
installation.log
```

The J2EE installation is executed.

A log file, installation.log is created in the directory
%ALLUSERSPROFILE%\agile\installer\6.2.1\log. It will be overwritten every time you will
call batchinstall.cmd again.

DFM Batch Installation

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
 - * Agile e6 AutoVue Integration
 - * Web Fileservice
 - * Streaming Fileservice
- ? FMS Java Daemon
- ? File Server

Requirements

- ? All prerequisites mentioned in the Prerequisite Guide for Agile are met before performing the batch installation.
- ? The latest Tomcat version 8 with Java 8 64-Bit has to be installed on the DFM site(s) server. The Tomcat 8 core binary distribution can be downloaded from <http://tomcat.apache.org/>

Note: Only on Windows the Tomcat 8 64-bit 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 8 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.

Create and Update Batch Property File

Note: When initially adapting the properties file, leave any <password> attributes empty as they will be updated later with encrypted passwords created by the EPKEYTOOL in connection with creating wallets. More information on wallets and encrypted passwords can be found in the Agile EDM Security Guide.

1. Copy the <installation-media-path>/installer/properties/examples/batch_install_dfm.properties to the <installation-media-path>/installer/properties directory.
2. Update the installation.properties file


```
plm.inst.name=<AgileInstallation62>
plm.inst.root=<c:\\plm62>
```

Initialize Batch Installation

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 64-bit Java 8 Development Kit.


```
set JAVA_HOME=c:\Program Files\Java\jdk1.8.0_<update_number>
```
3. Execute the following command in your previously opened command shell:


```
batchinstall.cmd properties/batch_install_dfm.properties INIT
```

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 64-bit Java 8 Development Kit.


```
setenv JAVA_HOME /usr/local/java/jdk1.8.0_<update_number>
```
3. Execute the following command in your previously opened csh shell:


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

Create the DFM Oracle Wallet Package

1. Copy the agile-edm-public-wallets.zip from your master installation to the location you have defined above
2. Edit the batch_install_dfm.properties file and change the following properties
 - ? plm.inst.wallets.private.archive=<Full path (incl. filename) to the existing private wallet archive>
 - ? plm.inst.wallets.public.archive=<Full path (incl. filename) to the existing public wallets archive>

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

Windows:

```
batchinstall.cmd properties\batch_install_dfm.properties DFMWALLET
```

UNIX:

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

This command creates the DFM Oracle wallet package which is used to encrypt local passwords.

- The agile-edm-private-wallets.zip contains the local DFM Oracle wallets (Including the private keys).

Encrypt Passwords

Some of the properties which you have to change in the batch_install_dfm.properties file are passwords.

You have to enter them encrypted to secure your installation. The Agile e6 installer package provides the epkeytool to encrypt sensitive data.

To encrypt your passwords call the following command script:

Windows:

```
tools\bin\epkeytool.bat -encryptpwd -keyStore  
file://%ALLUSERSPROFILE%\agile\installer\6.2.1\wallets\installation\AgileInstallat  
ion62\wallet\private\server\cwallet.sso -keyAlias orakey
```

UNIX:

```
tools/bin/epkeytool.sh -encryptpwd -keyStore  
file://${HOME}/.agile/installer/6.2.1/wallets/installation/AgileInstallation62/wal  
let/private/server/cwallet.sso -keyAlias orakey
```

The epkeytool prompts for the password to encrypt and prints the encrypted password in the command shell.

Update the installation.properties file with the encrypted passwords

1. Open the property file from <install-media-path>/installer/properties/batch_install_dfm.properties
2. Copy the encrypted password to the correct place in the batch_install_dfm.properties file.
 - plm.userdefinition.priv_password
 - plm.userdefinition.unpriv_password

Execute the Batch Installation

1. Execute the following commands in your previously opened shell:

Windows

```
batchinstall.cmd properties/batch_install_dfm.properties DFM
```

UNIX

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

The DFM installation is executed.

A log file, installation.log is created in the directory

%ALLUSERSPROFILE%\agile\installer\6.2.1\log. It will be overwritten every time you will call batchinstall.cmd again.

Oracle Database 12c

Note: This chapter describes prerequisites for installing the Oracle Database client and server on all supported operating systems.

Oracle Database Prerequisites 12c

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: This 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/12.0.1

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 e6.2.1.0

Setting Up the Shell Environment Variables for Oracle 12c

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

1. Download and uncompress the Oracle Agile Engineering Data Management Application (Release e6.2.1.0) from the Oracle Software Delivery Cloud website.

Under Oracle Agile Applications > Oracle Agile Engineering Data Management (Release e6.2.1.0) Media Pack.
2. Copy the script `csch_ORA12.1` 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 csch_ORA12.1`

`source $HOME/csch_ORA12.1`
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 (<code>setenv DISPLAY hostname: 0.0</code>).
LD_LIBRARY_PATH	Required for Oracle products using shared libraries. Must include: <code>\$ORACLE_HOME/lib</code> .
SHLIB_PATH (HP-UX)	
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 <code>\$ORACLE_HOME/nls/data</code>
PATH	The search path must include: <code>\$ORACLE_HOME/bin</code> , <code>/bin</code> , <code>/usr/bin</code> , and <code>/usr/local/bin</code> .
TMPDIR	A directory with free space where the Oracle account has write permission. The default location on UNIX is <code>/usr/tmp</code> .

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_plm62
? stop_plm62
? stop_plm62_immediate
? stop_plm62_transactional
```

Installing Oracle Database Server 12c

Note: This chapter describes the manual installation of the Oracle Database 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.

Note: If you have already installed Oracle database client (32-bit) on the same machine, please restart it before installing the Oracle database server.

Start the Oracle Database installation

? Windows

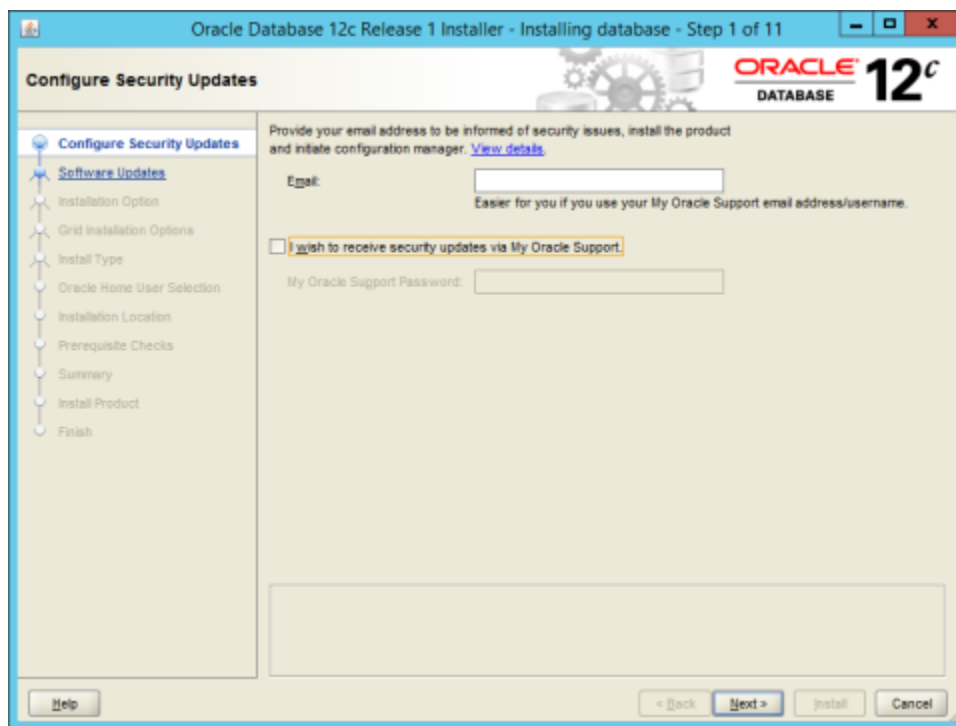
Run setup.exe from the downloaded Oracle Installation Media.

? UNIX

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

```
./runInstaller
```

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:
 - a. Enter the email address you have provided when registering with My Oracle Support.
 - b. 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.

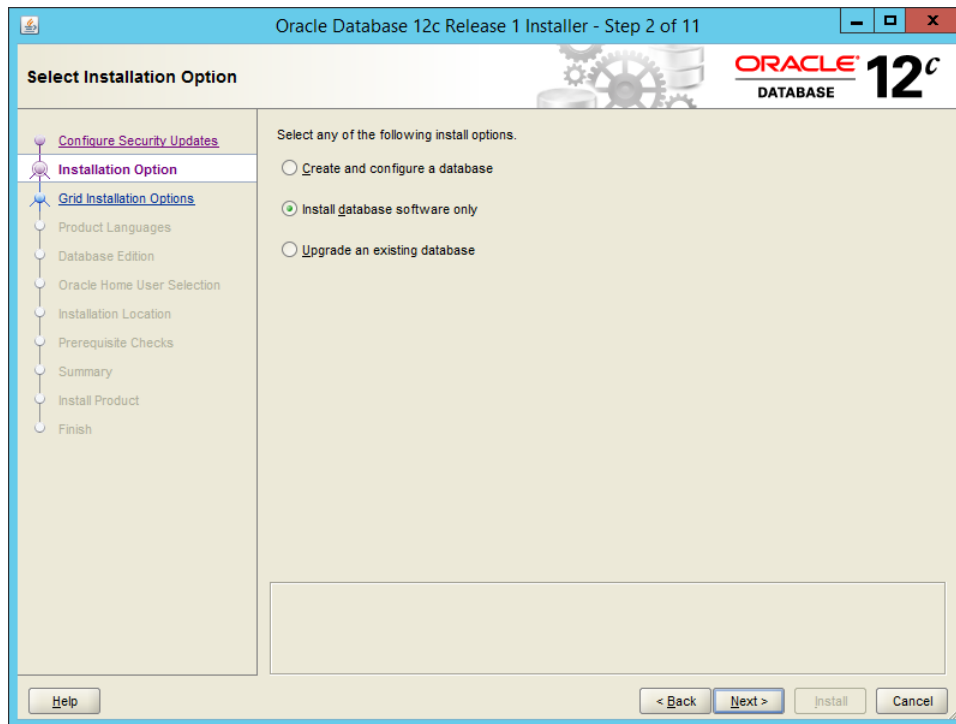
By default, the I wish to receive security updates... option is not selected. If your company's policy requires such updates, then this option should be selected.

3. Click Next.

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

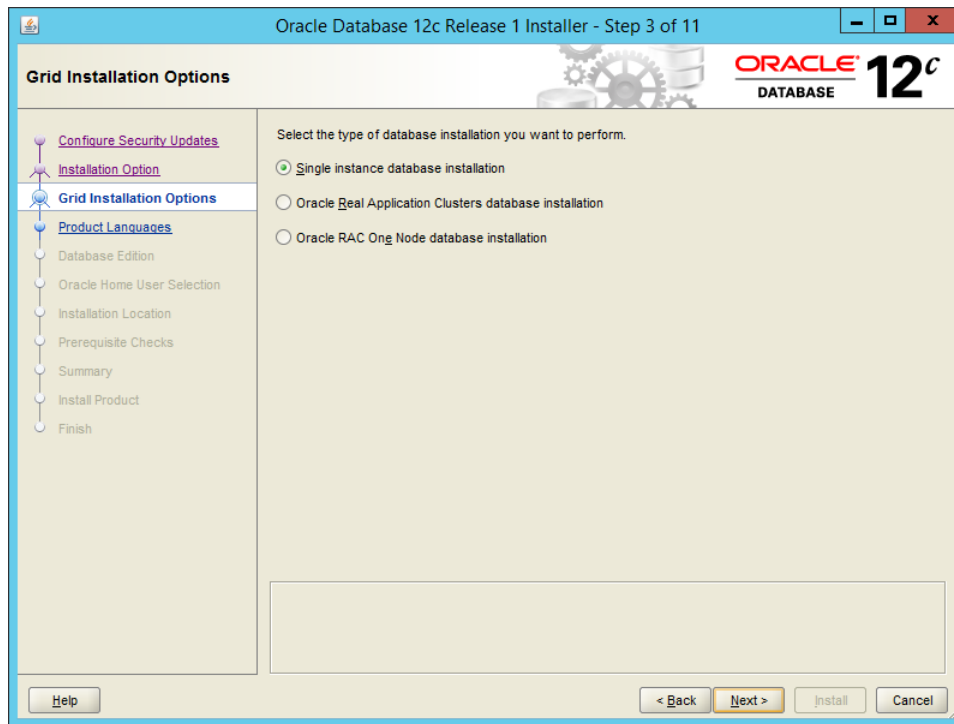
4. Click Yes.

The Select Installation Option screen is opened.



5. Select Install database software only and click Next.

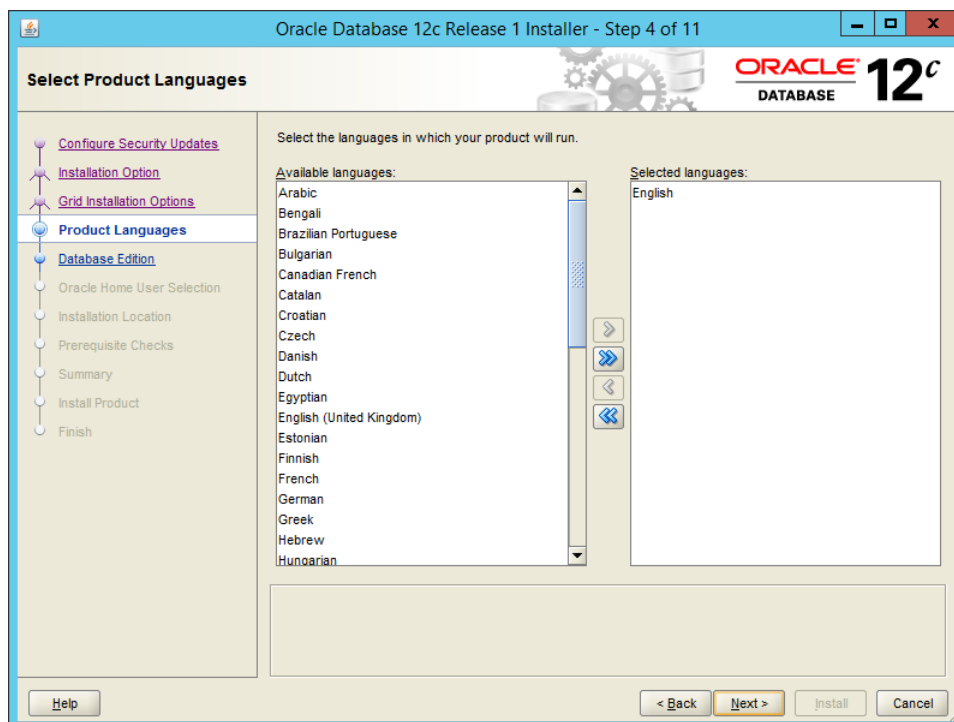
The Grid Installation Options screen is opened.



6. 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.



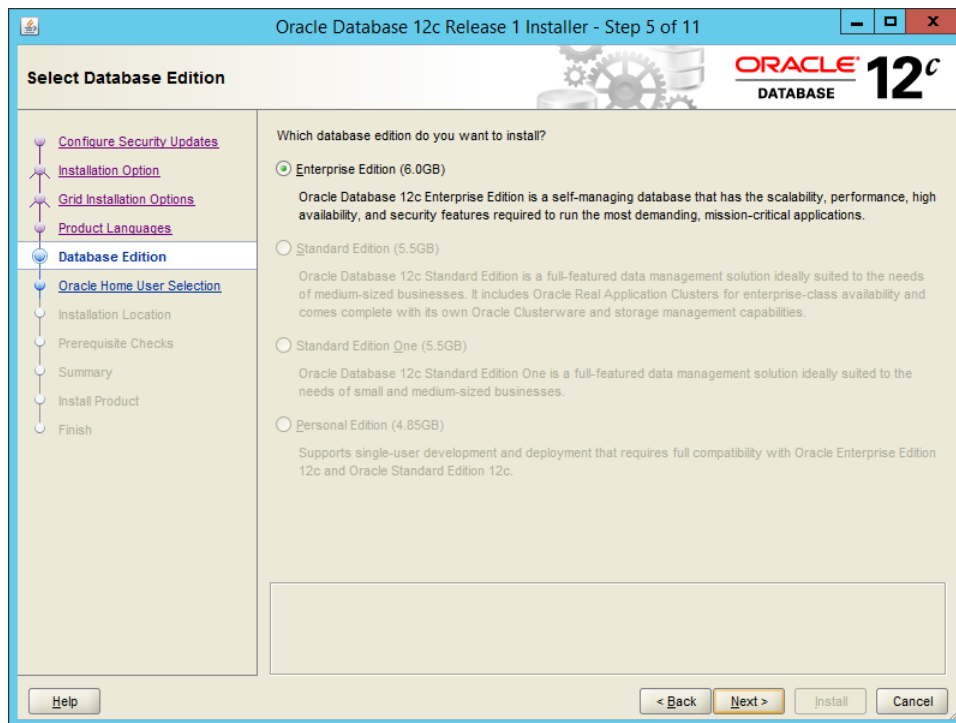
7. Select English as the product language.

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.

8. Click Next.

The Select Database Edition screen is opened.

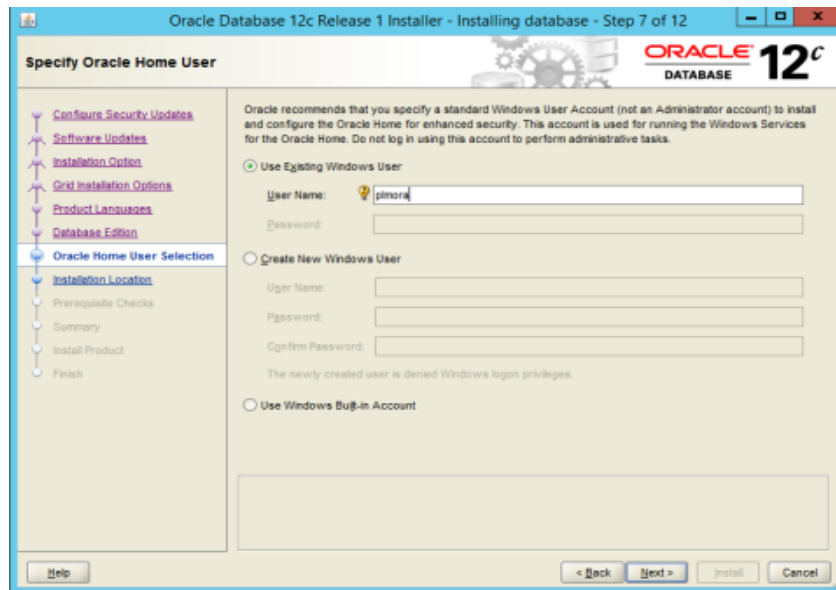


9. After your selection, click Next.

The Specify Oracle Home screen is opened.

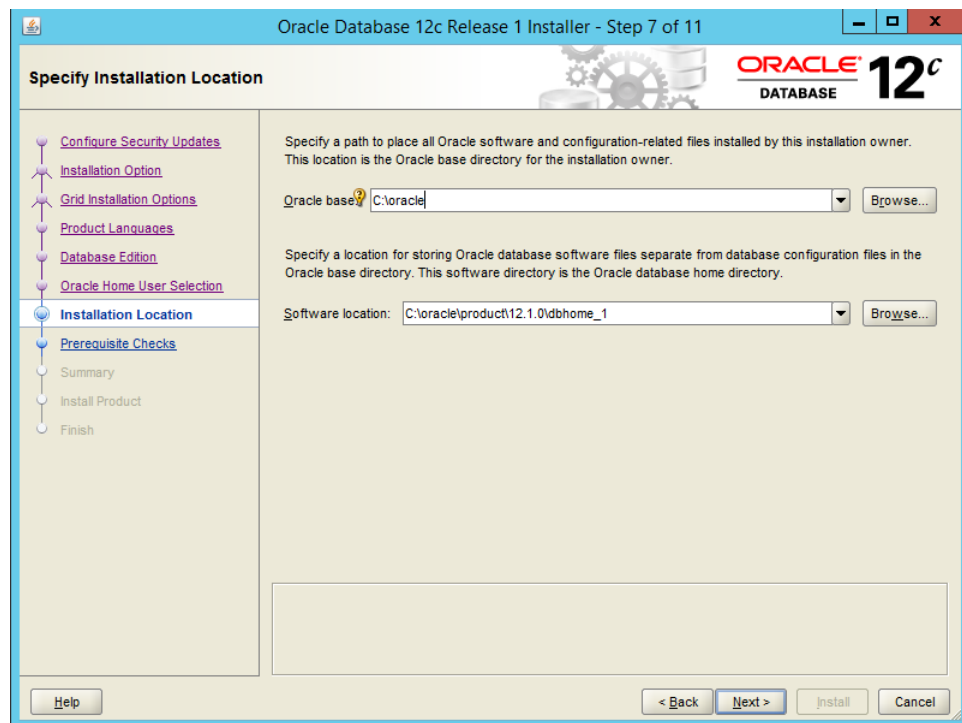
The Oracle Home User is different from an Oracle Installation User. The Oracle Installation User is the user who requires administrative privileges to install Oracle products. The Oracle Home User is used to run the Windows services for the Oracle Home.

The Oracle home user can be the Windows build-in account or a Windows user account. For enhanced security, Oracle recommends that a standard Windows user account be chosen as the Oracle home user for a database server installation. If a Windows user account is used, it must be a standard Windows user account (not an administrator) and for single instance database installations can be a local user, a domain user, or a managed services account. For Oracle Database RAC installations, the Windows user account must be a domain user.



10. Specify the Oracle home user and click Next.

The Specify Installation Location screen is opened.



11. Specify the installation location for the Oracle Base directory and the Software Location which is the Oracle Home directory (e.g. \$ORACLE_BASE/product/12.1.0/dbhome_1).

If the selected Oracle home 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.

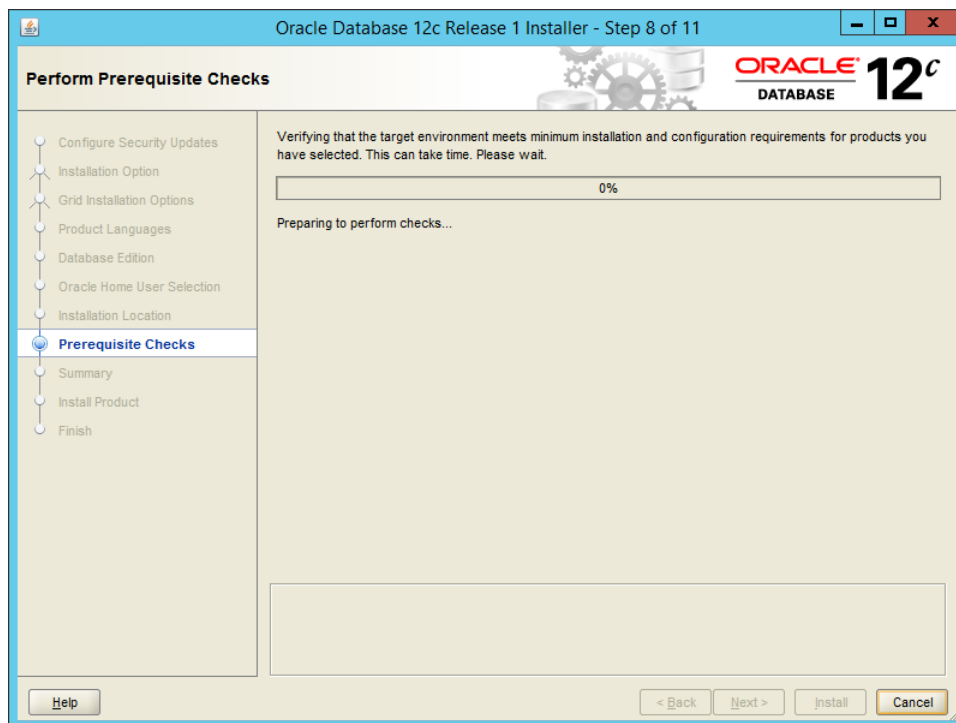
If the selected Oracle home location is outside of Oracle base, the following warning message appears:

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

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

12. To override the warning, click Yes.

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.

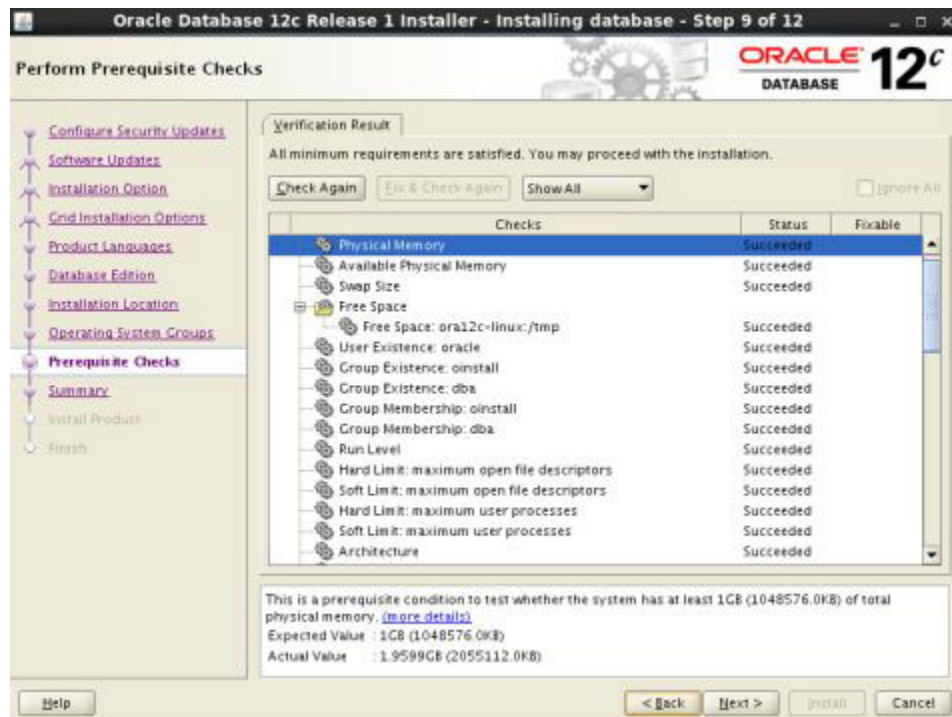
Note: UNIX

The Fix & Check Again button, and the function to create a fixup script will only appear on a UNIX operating system.

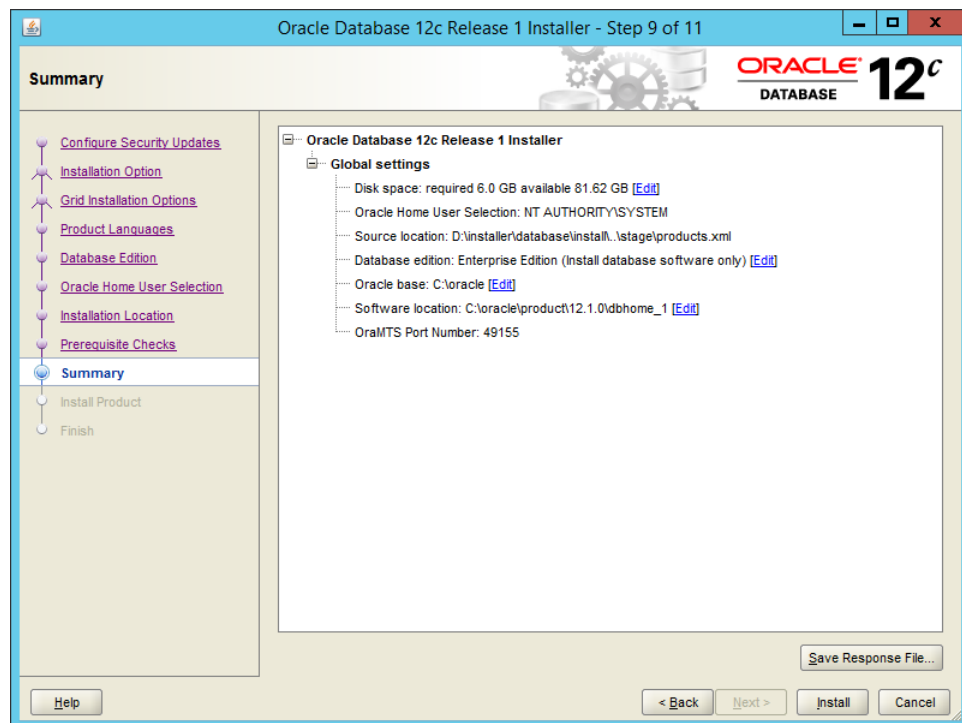
You may click the Fix & Check Again button to generate a fixup script.

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.

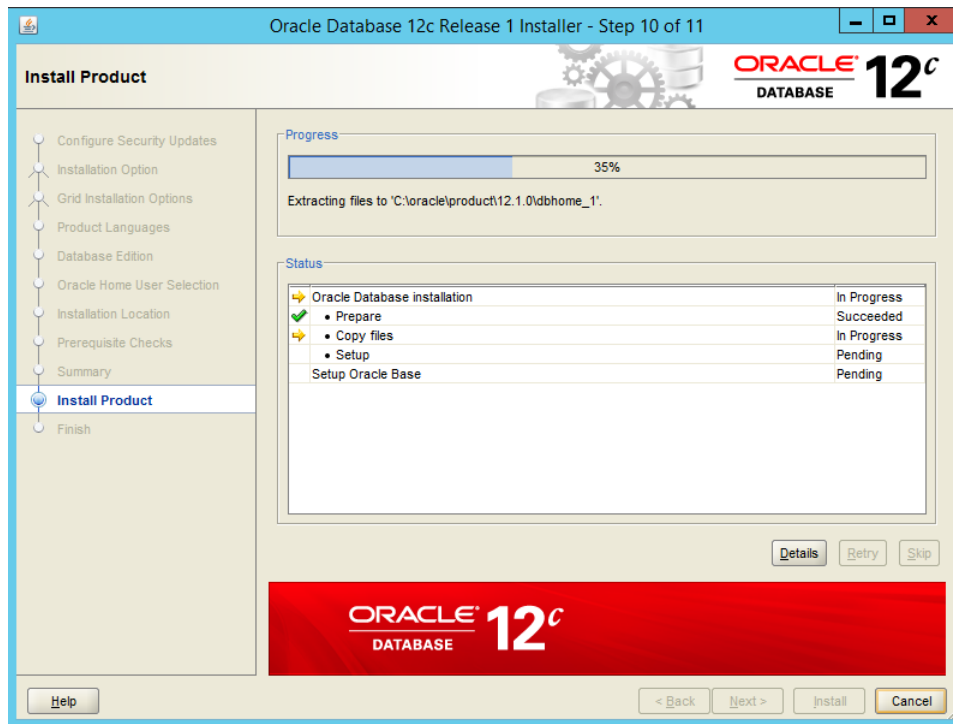


When all of the minimum requirements are met, the Summary screen is opened.



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

The Installation Progress screen is opened.



14. When the installation completes, the Finish screen is opened

15. Click Close to exit.

Note: For Oracle Database 12cR1 (12.1.0.2), you can install the database server patch (64-bit) if required:

- WINDOWS DB BUNDLE PATCH 12.1.0.2.4 - 20684004

- UNIX - PRO*C METHOD 4 LEAKS MEMORY IN 12.1 - 20051833

Note: Further information about these database server patches can be found on the Oracle Patches and Updates support website:

- Windows:

<https://updates.oracle.com/Orion/Services/download?type=readme&aru=18784207>

- UNIX example:

<https://updates.oracle.com/Orion/Services/download?type=readme&aru=18369852>

Installing Oracle Database Client

Note: This chapter describes the manual installation of the Oracle Database 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: If you have already installed Oracle database server on the same machine, please restart it before installing the Oracle database client.

Note: The 32-bit Oracle client must be installed on the same machine where Agile e6.2.1.0 is installed.

1. The first step of the installation is different for Windows and UNIX.

 ? Windows

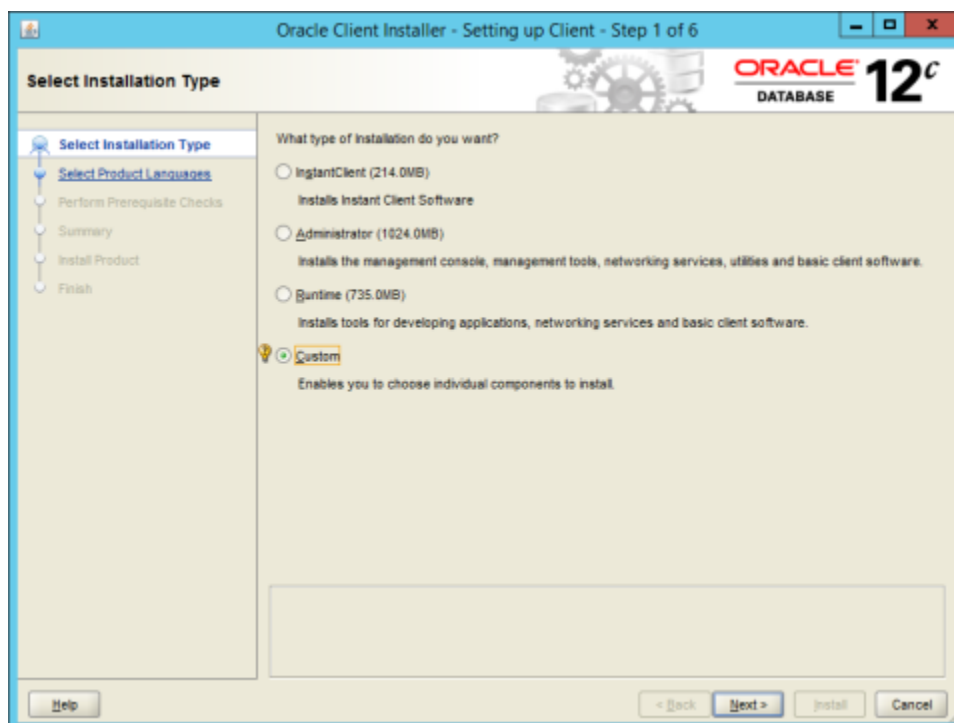
 1. Run setup.exe from the downloaded Oracle Installation Media.

 ? UNIX

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

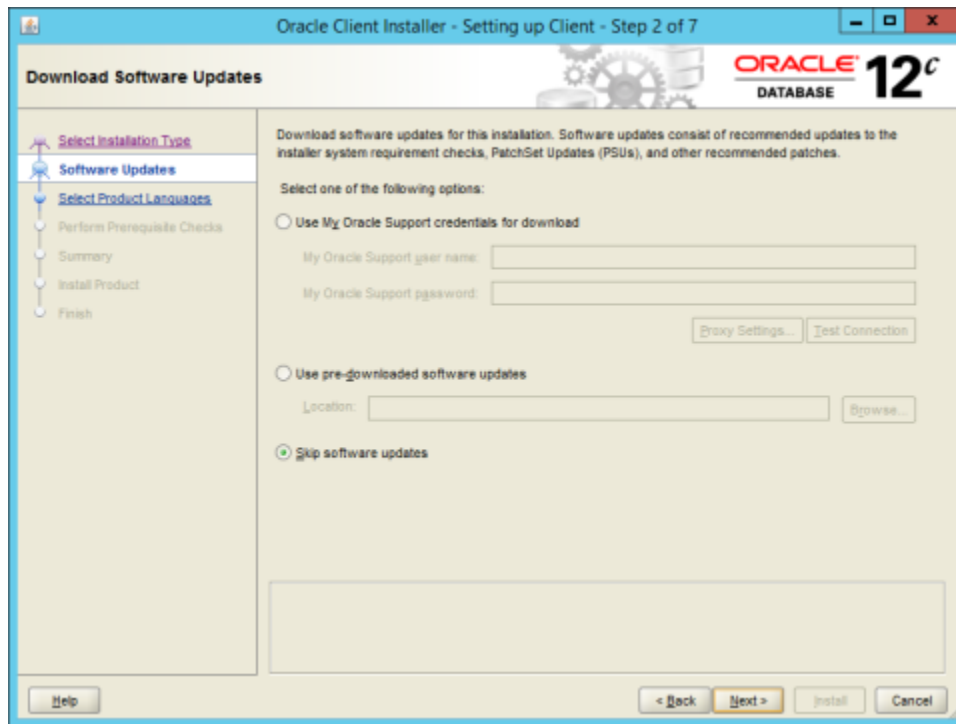
```
./runInstaller
```

The Select Installation Type screen is opened.



2. Select Custom and click Next.

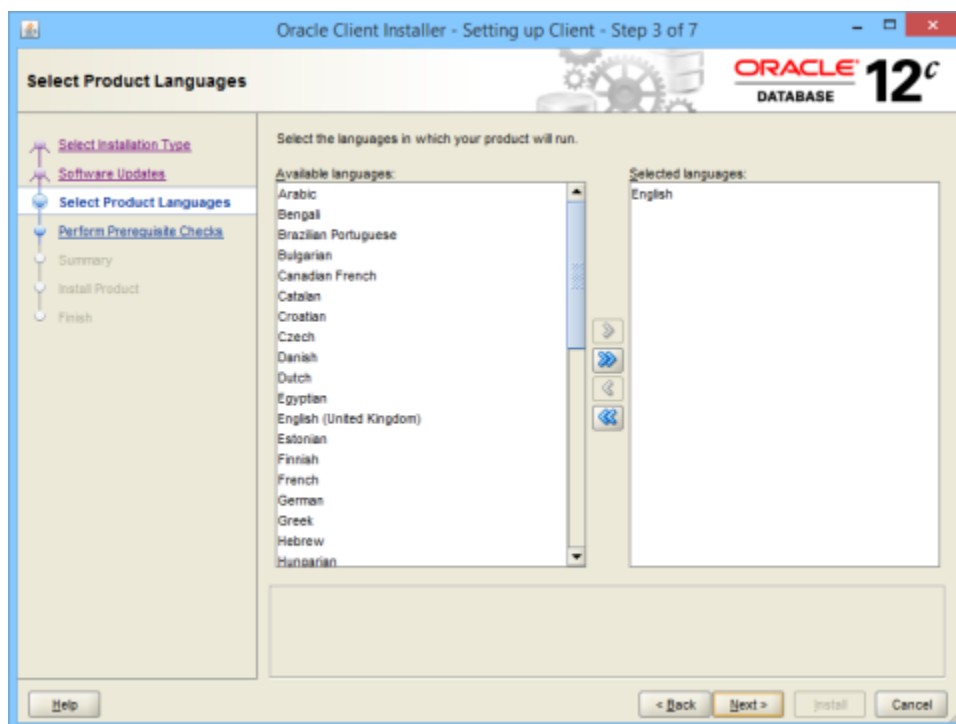
The Download Software Updates screen is opened.



3. Select Skip software updates and click Next.

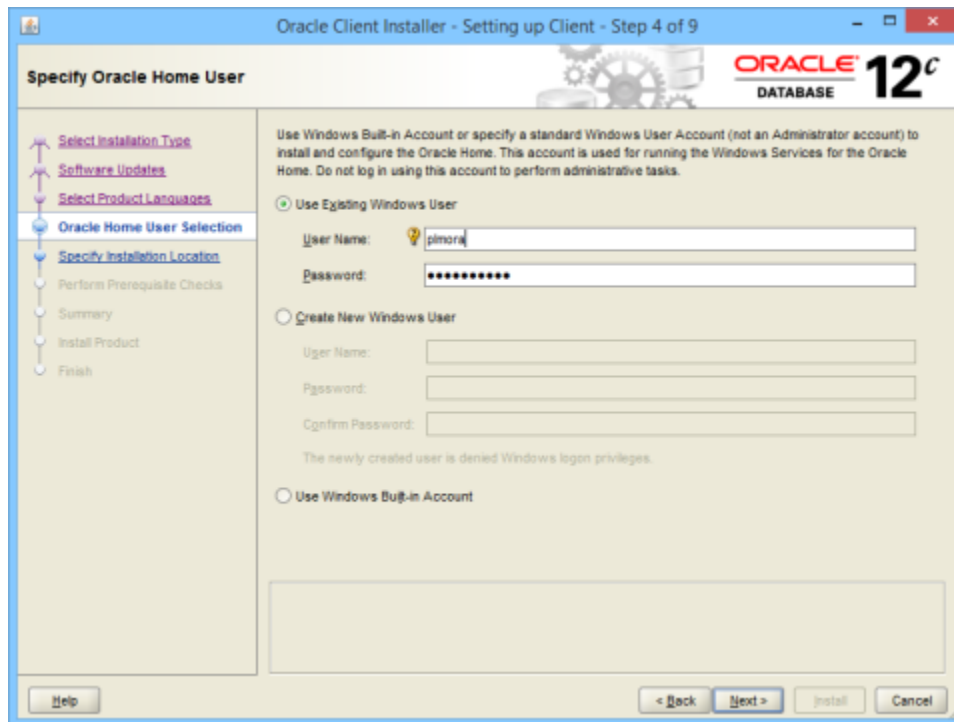
Skip software updates is the default selection.

The Select Product Languages screen is opened.



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

The Specify Oracle Home User screen is opened.

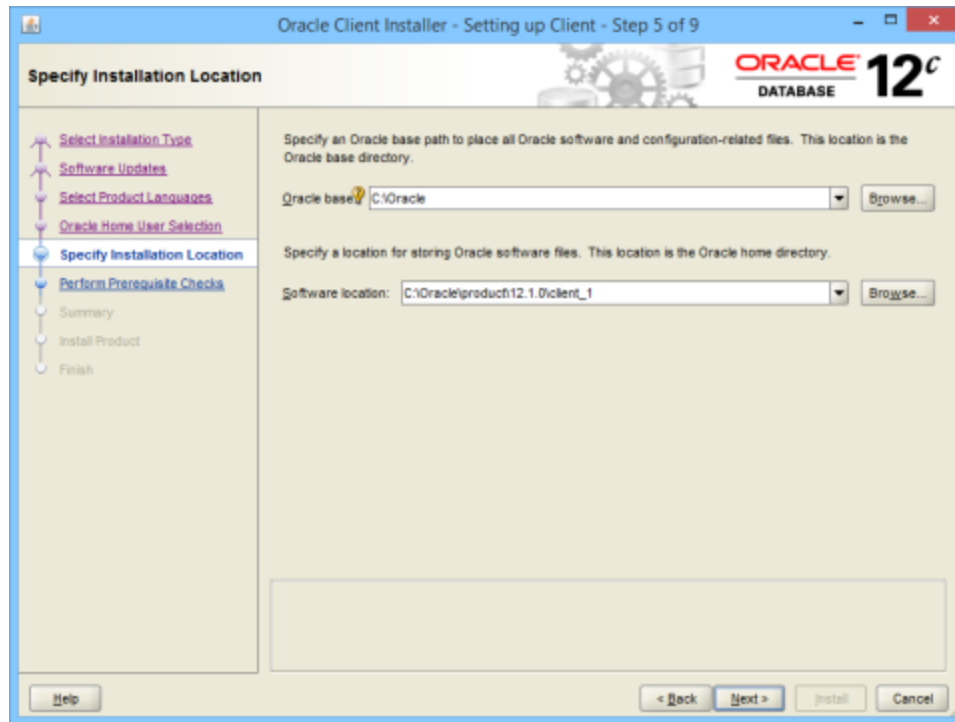


The Oracle home user is different from an Oracle installation user. The Oracle installation user is the user who requires administrative privileges to install Oracle products. The Oracle home user is used to run the Windows services for the Oracle home.

The Oracle home user can be the Windows built-in account or a Windows user account. For enhanced security, Oracle recommends that a standard Windows user account has to be chosen as the Oracle home user for a database client installation. If a Windows user account is used, it must be a standard Windows user account (not an administrator) and can be a local user, a domain user, or a managed services account.

5. Specify the Oracle home user and click Next.

The Specify Installation Location screen is opened.



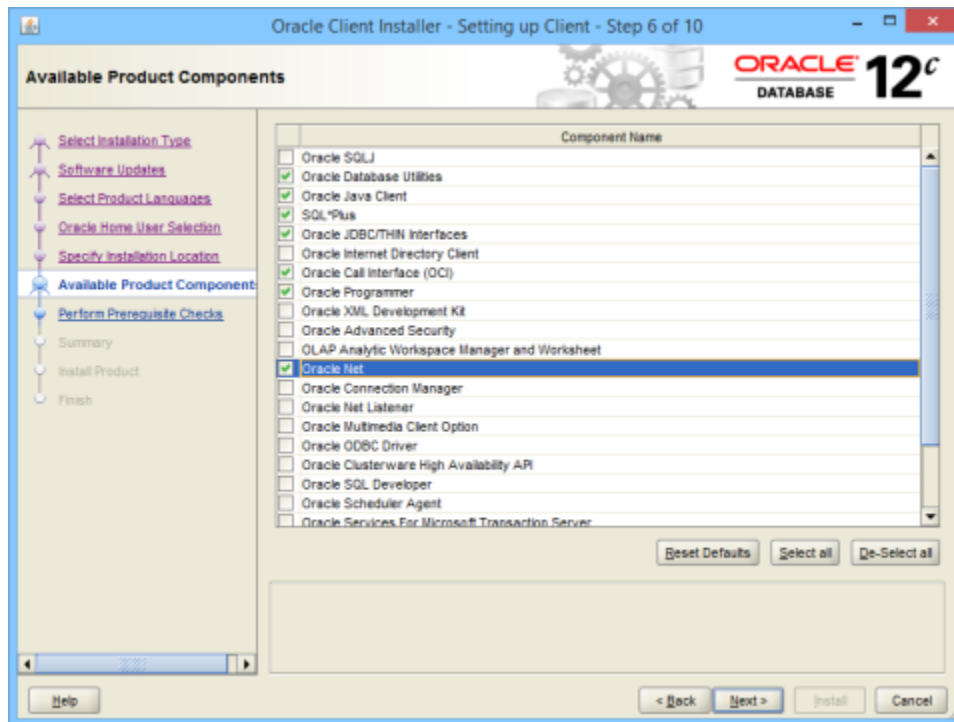
6. Specify the installation location for the Oracle base directory and the Oracle home directory.
7. Click Next.
 - ⌚ If the Oracle base location is the same as the user home directory, the following warning message appears:
 [INS-32008] Oracle base location can't be the same as the user home directory.

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.

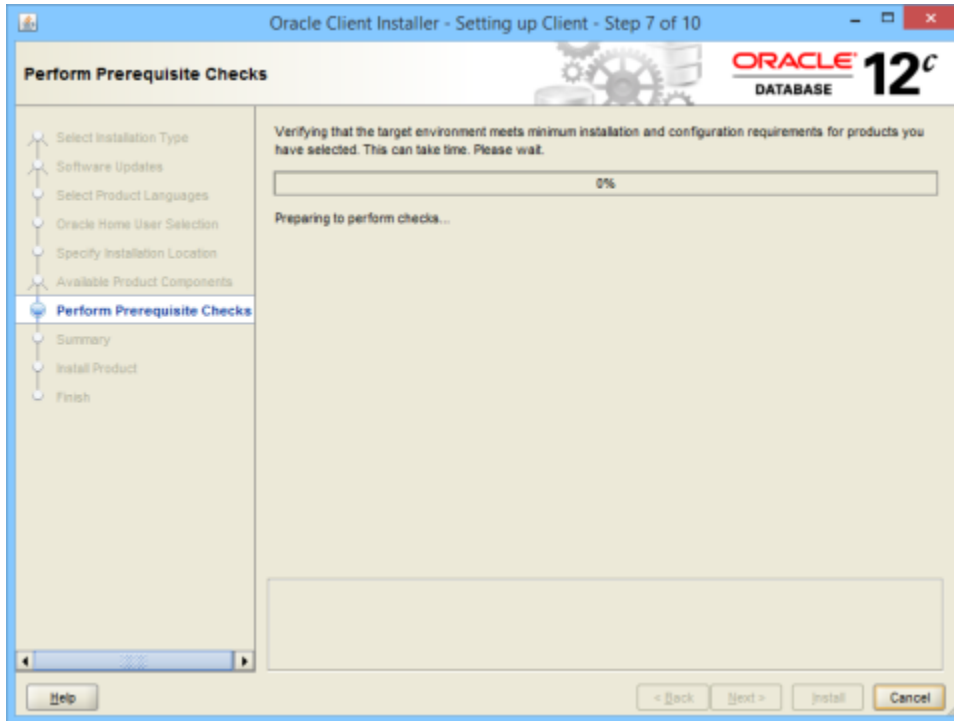


9. Select the following components to install (as shown in the screen above):

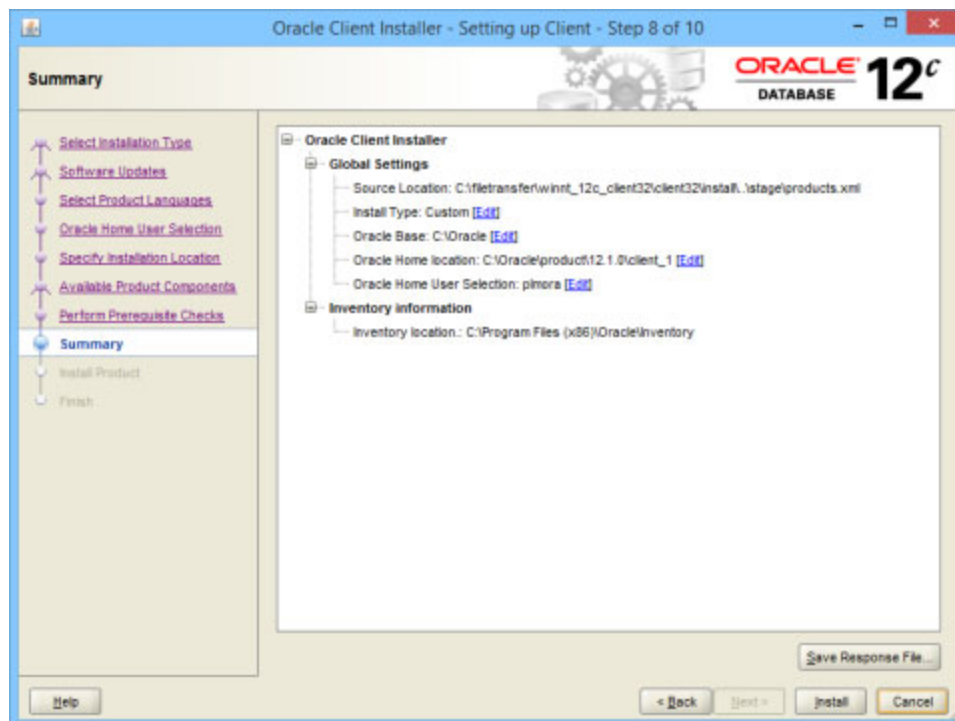
- ? Oracle Database Utilities
- ? Oracle Java Client
- ? SQL*Plus
- ? Oracle JDBC/THIN Interfaces
- ? Oracle Call Interface (OCI)
- ? Oracle Programmer
- ? Oracle Net

10. Click Next.

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



The Perform Prerequisite Checks screen verifies if your computer meets the minimum system requirements to install the desired product.



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.

11. Upon completion, the Finish screen is opened.

12. Click Close to exit the Oracle Client Installer.

Install Database Client Patch

Note: The database client of Oracle Database 12cR1 (12.1.0.2) requires the following patch (32-bit) to be installed:

- WINDOWS DB BUNDLE PATCH 12.1.0.2.170117 - 25115951

- UNIX Database Patch Set Update 12.1.0.2.170117 - 24732082

Note: If you are on HP-UX platform, please use database client patch 20051833

Note: Further information and instructions about these database client patches can be found in the respective Readme file from the Oracle Patches and Updates support website:

- Windows:

<https://updates.oracle.com/Orion/Services/download?type=readme&aru=20996006>

- UNIX example:

<https://updates.oracle.com/Orion/Services/download?type=readme&aru=21238448>

Installation Example for Windows:

Note: You must use the OPatch utility version 12.1.0.1.2 or later to apply this patch.

```
unzip p25115951_121020_WINNT.zip
cd 25115951
%ORACLE_HOME%\OPatch\opatch.bat apply
```

Installation Example for UNIX:

Note: Ensure that the Oracle home on which you are installing the patch, or from which you are rolling back the patch, is Oracle Database 12c Release 12.1.0.2.0.

```
$ unzip -d <PATCH_TOP_DIR> p24732082_<121020_UNIX-SYSTEM>.zip
$ cd <PATCH_TOP_DIR>/24732082
$ $ORACLE_HOME/OPatch/patch apply
```

Post-Installation Modifications for the Oracle Database 12c

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.

Before creating the database instance, the database listener needs to be configured.

Configure the Listener

1. Start the Oracle Net Configuration Assistant.

 ? Windows

1. Start the Oracle Net Configuration Assistant.
2. Click Start > All Programs > Oracle - OraDb192c_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
```

The Oracle Net configuration Assistant - Welcome screen is opened.



2. Select the Listener configuration and click Next.

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



3. Select Add and click Next.

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

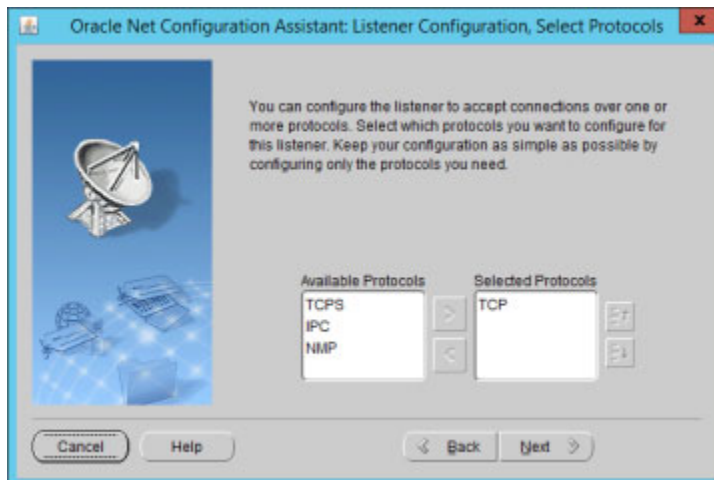


4. Enter the Listener name to be created and click Next.

If you created the Oracle home user with non-Windows-Built-In Account while installing oracle database server, the password for the Oracle home user is here required.

5. Click Next.

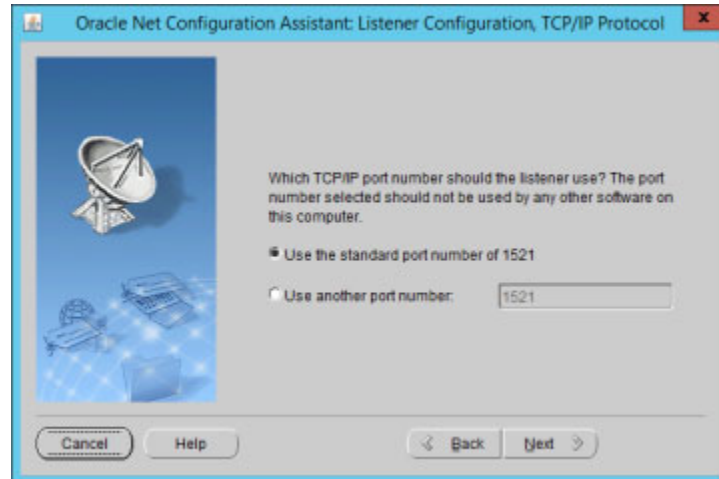
The Oracle Net configuration Assistant - Listener Configuration, Select Protocols screen is opened.



6. 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.

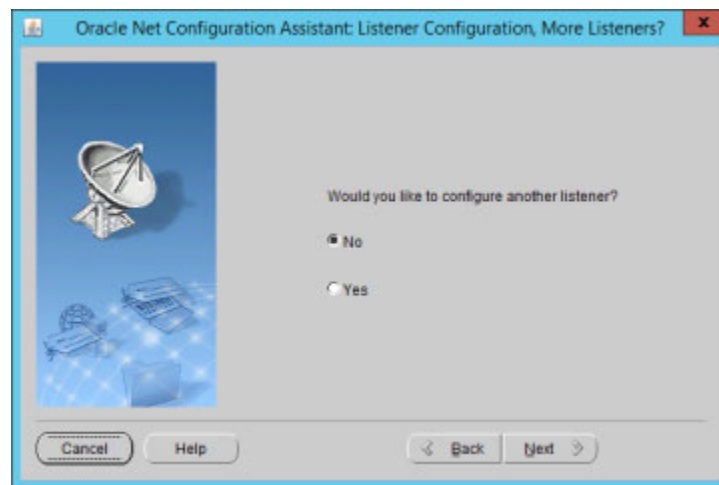


7. Select the standard port number of 1521.

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

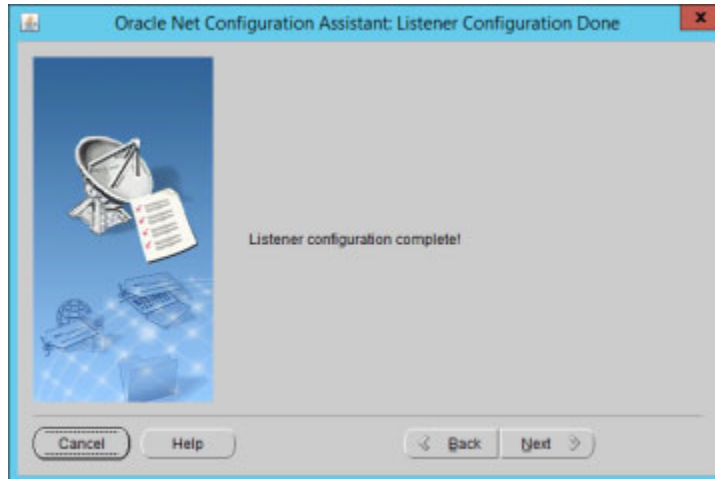
8. Click Next.

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



9. Select No and click Next.

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



10. Click Next and finish to close the Listener Configuration.

Your database listener is now created and started.

Configuring the Database Net Service Name

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

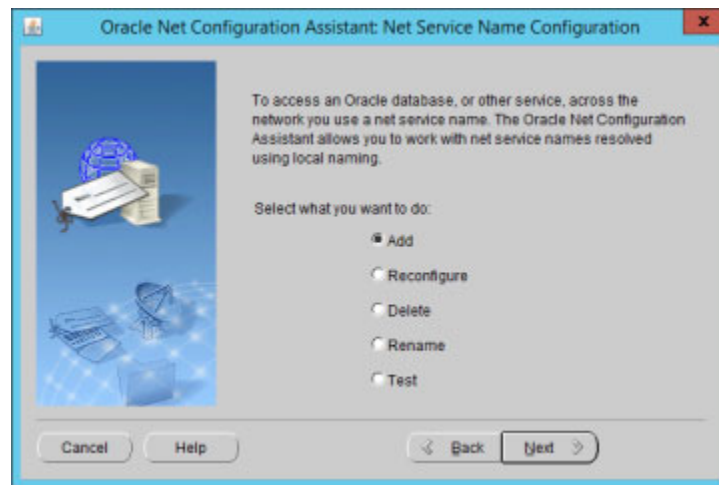
Note: The following instruction is only necessary for the database!

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.

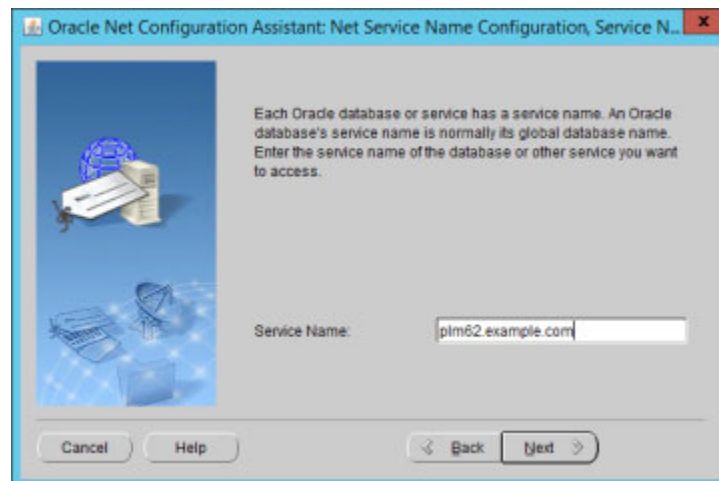
1. Start the Oracle Net Services Configuration Assistant.
 - ? Windows
Click Start > All Programs > Oracle - OraClient12Home1_32bit > Configuration and Migration Tools > Net Configuration Assistant.
 - ? UNIX
Enter the command: `$ORACLE_HOME/bin/netca`
The Welcome to the Oracle Net Configuration Assistant screen is opened.



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



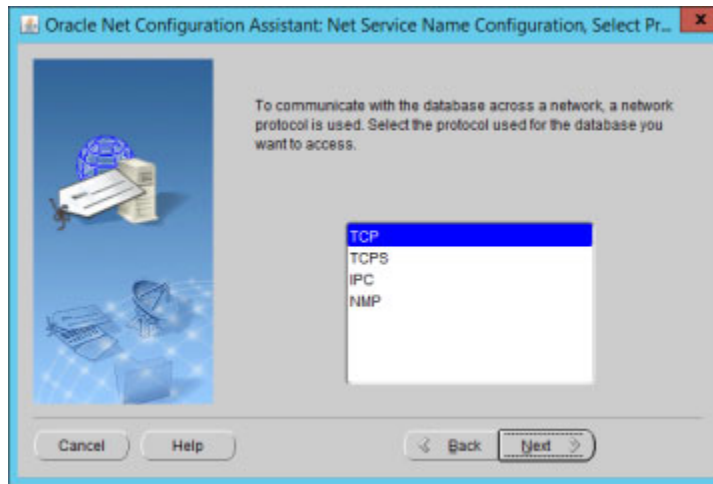
3. Select Add and click Next.



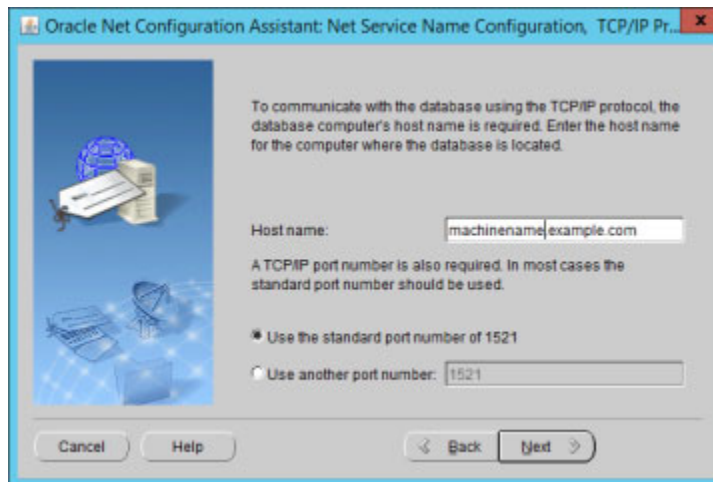
4. Enter the Service Name.

This is the global database name you provided by the database creation. In the example it is plm62.example.com.

5. Click Next.



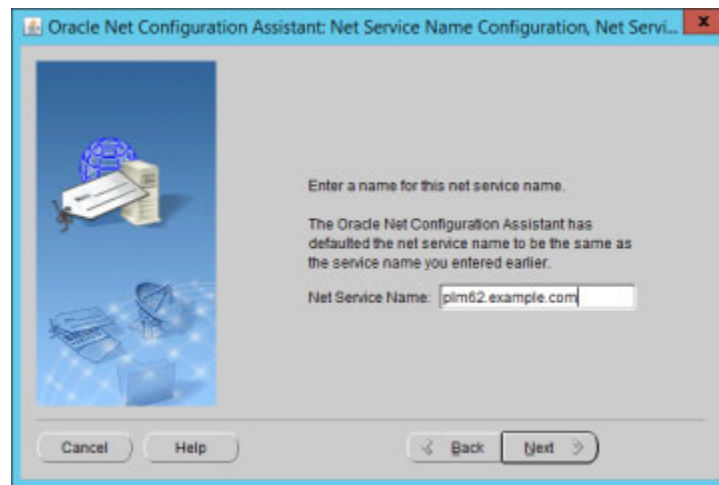
6. Select the TCP protocol and click Next.



7. Enter the fully qualified host name - where the Oracle database is located and click Next.

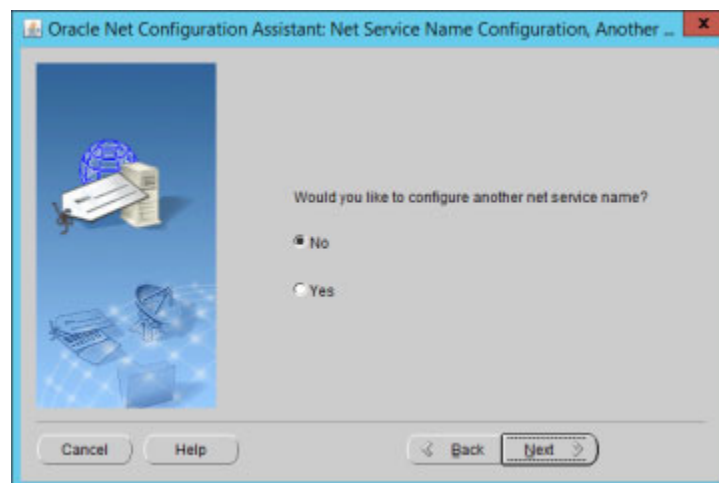


8. Select No, do not test and click Next.

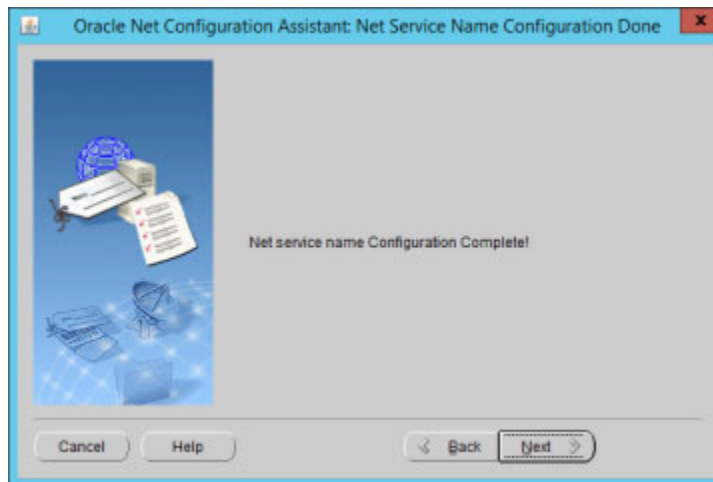


9. Enter the Net Service Name and click Next.

This is the same name as entered above.



10. Select No and click Next.



The Net service name configuration is completed.

11. Click Next.
12. Click Finish to quit.

Create the Database

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 e6.2.1.0 database installation.

For additional information on significant database parameters and settings of each template, refer to the Hardware Sizing Guide for Agile e6.2.1.0.

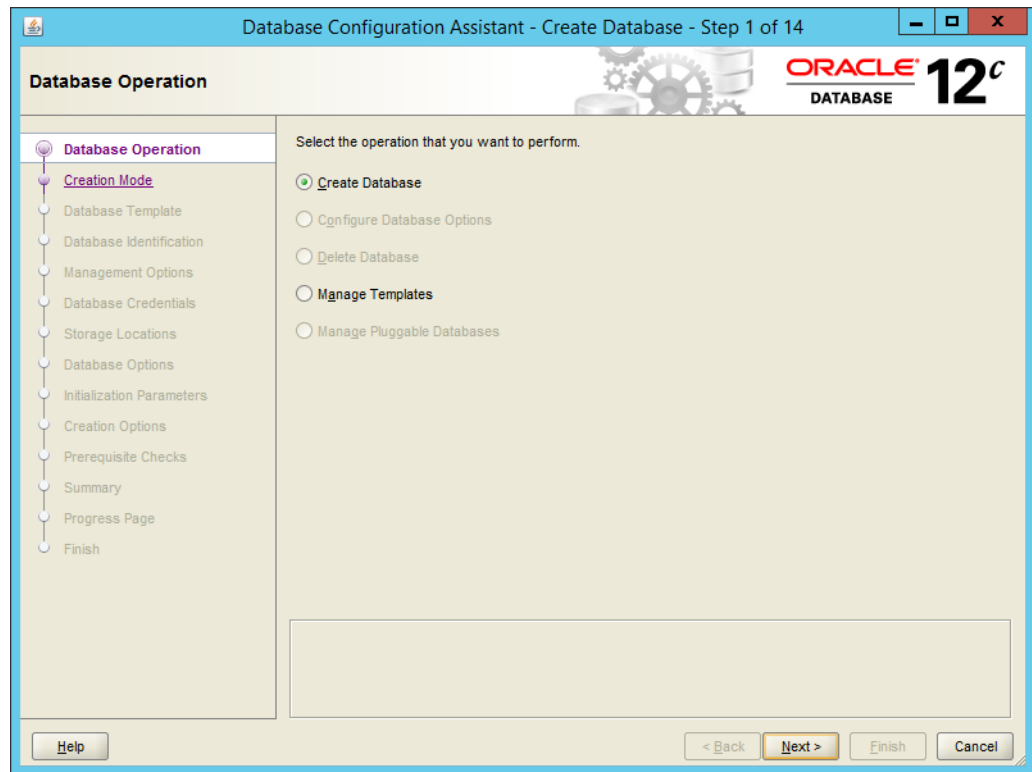
Note: In all the examples given in this chapter, the name of the Oracle Home for Oracle Database installation is OraDb12c_home1. You may use a different name in your installation.

1. Refer to the downloaded media pack - Oracle Agile Engineering Data Management Application (Release e6.2.1.0).
 - ? Windows
 1. All the templates are in the db_addon\axalant\db_util\oracle\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. Search for application Database Configuration Assistant and start it.
 - ? 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

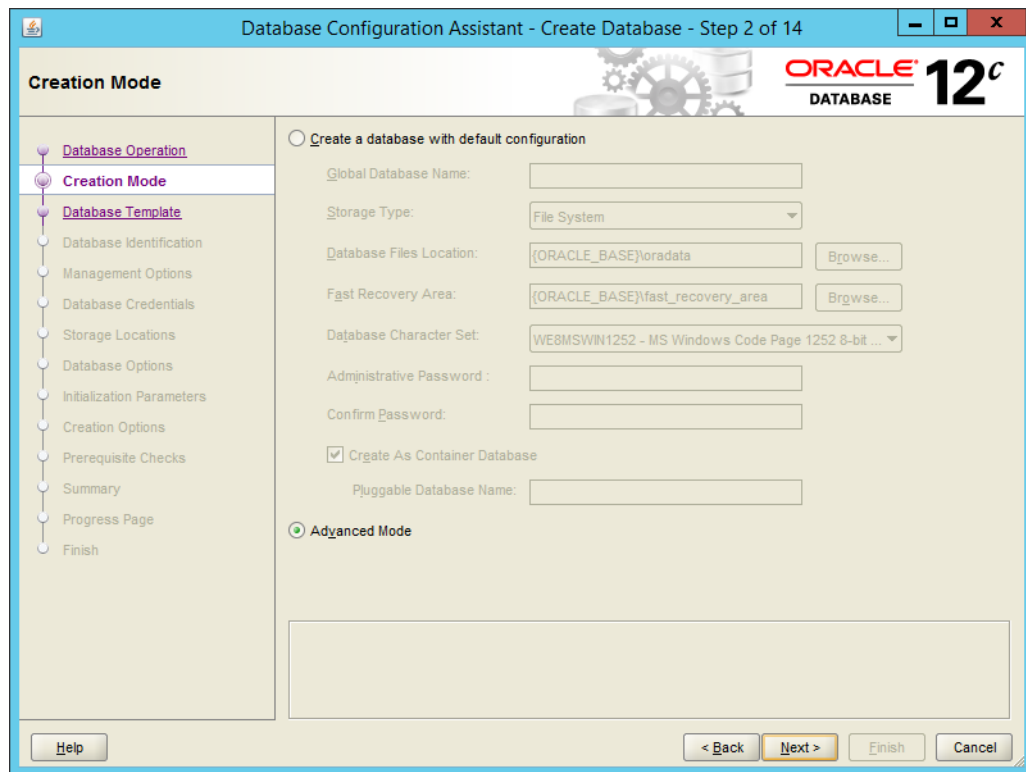
\$ORACLE_HOME/bin/dbca

The Database Configuration Assistant: Welcome screen is opened.



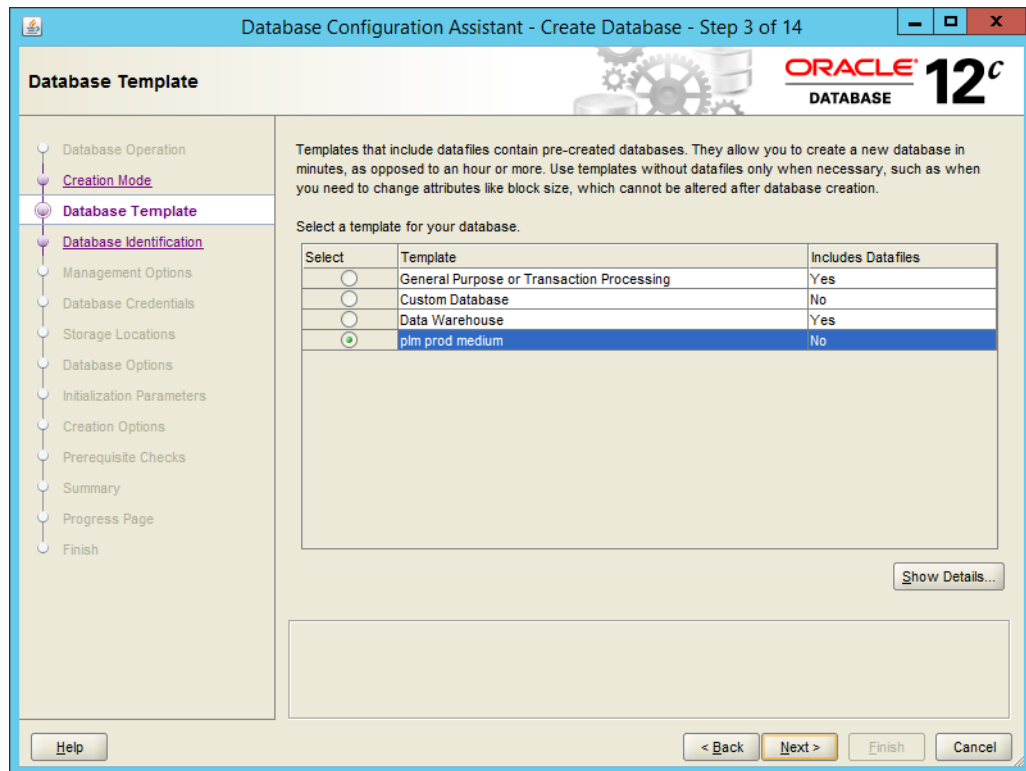
2. Select Create a Database and click Next.

The Database Configuration Assistant - Creation Mode screen is opened.



3. Select Advanced Mode and click Next.

The Database Configuration Assistant - Database Template screen is opened.



The template that you have chosen and copied 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.

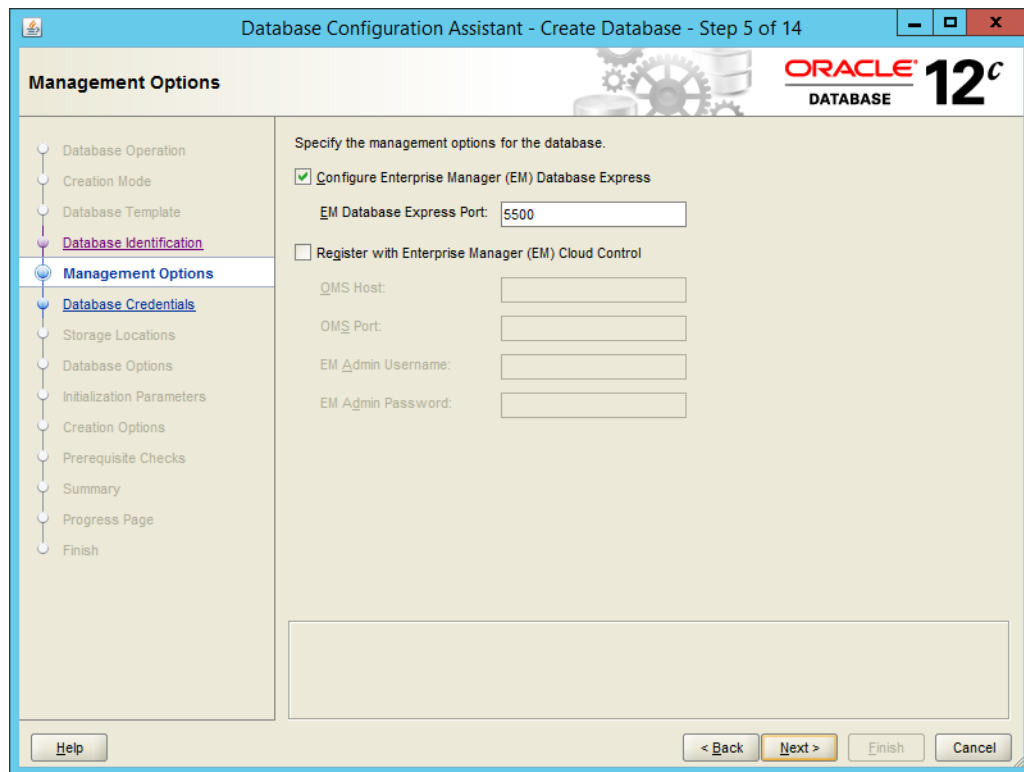
5. Enter the Global database name and database SID.

The default SID is plm62. It is recommended to set the global database name to SID.<domain name>; for example, plm62.example.com. But it can also be left with the same name as the database SID.

Note: Do not leave this field blank.

6. Click Next.

The Database Configuration Assistant - Management Options screen is opened.



With Oracle Database 12c the Enterprise Manager (EM) Database Express can be installed in two ways:

• EM Database Express

Oracle Enterprise Manager Database Express is a web-based database management tool that is built inside each Oracle database. All the SQL commands you normally type have been translated into a graphical point-and-click interface. EM Database Express even supports RAC database management.

EM Express is not a direct replacement for DB Control. EM Express is built inside the database server and there are limitations as to what it can do. EM Express is also focused on providing performance management and monitoring functionality, and is not meant to be an all around database administration tool.

• EM Cloud Control

Cloud Control provides Web-based management tools for managing individual database instances, as well as central management tools for managing your entire Oracle environment, including multiple databases, hosts, application servers, and other components of your network. It can even be used to manage non-Oracle databases.

For more information about centrally managing the databases, application servers, hosts, and other components of your network, see Oracle Enterprise Manager Administration Guide.

7. Select the option Configure Enterprise Manager (EM) Database Express.

The Oracle Configuration Assistant - Database Credentials screen is opened.

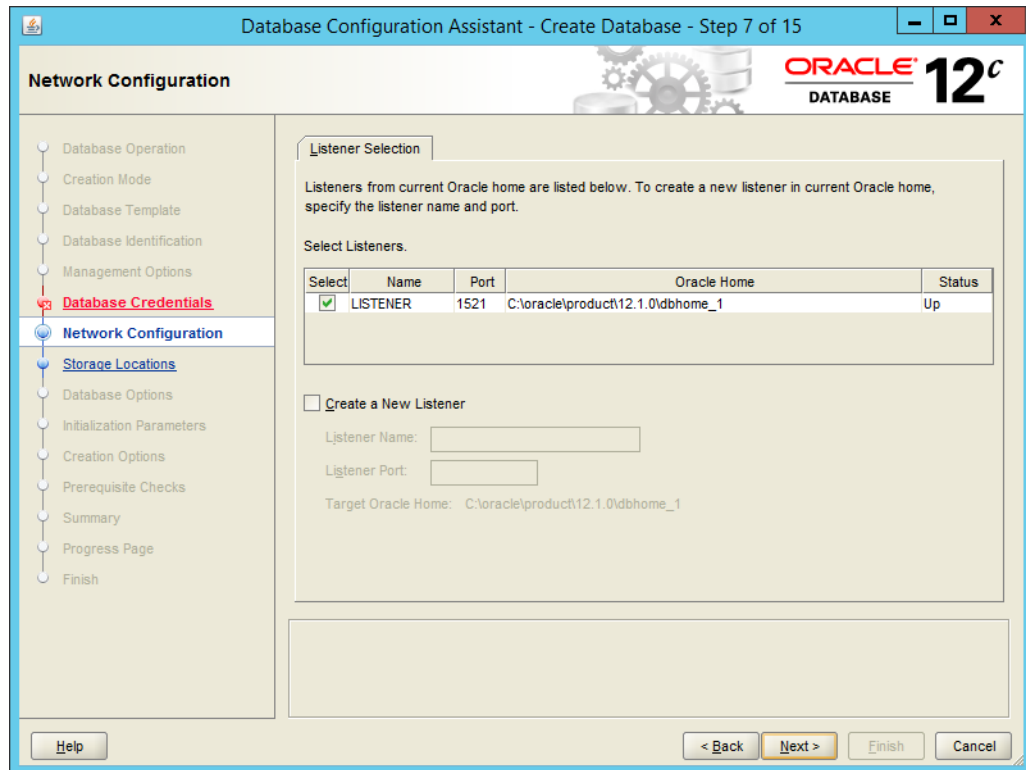
8. Enter passwords for SYS, SYSTEM and click Next.

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

Note: Each password needs to meet the Oracle recommended standards. A password should have a minimum of 8 characters. In addition, the password must contain at least one upper and one lower case character, and one digit.

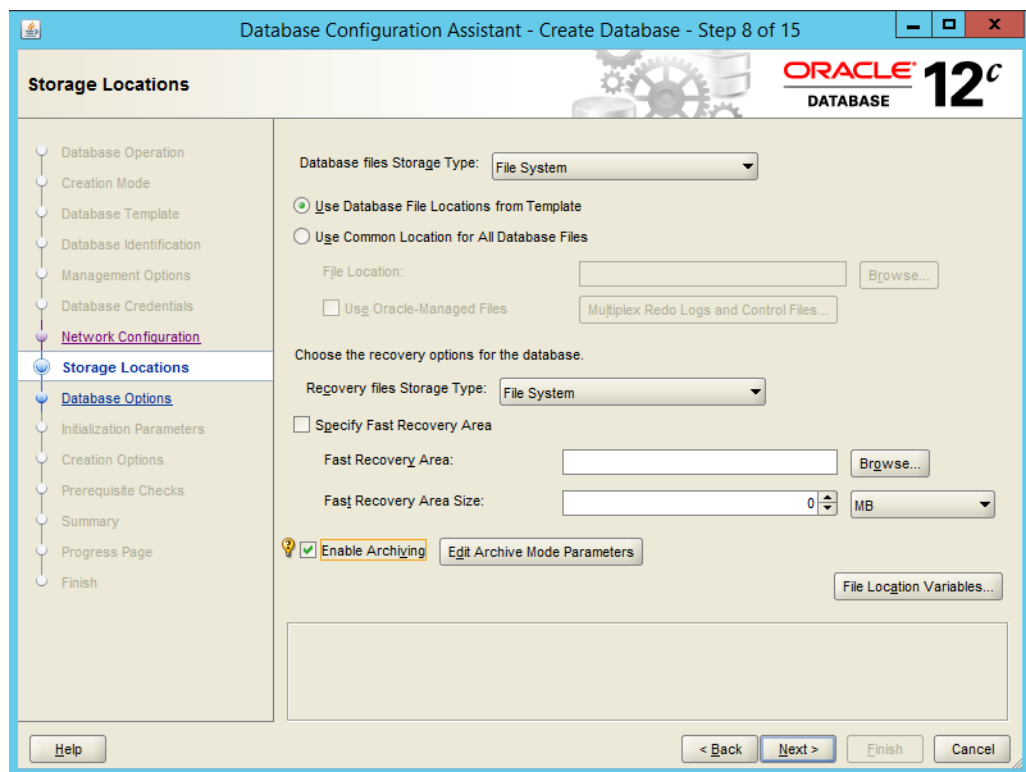
Note: If your Oracle home user is not the Windows built-in account, please use the password of the Oracle home user for the Windows service configuration.

The Database Configuration Assistant - Network Configuration screen is opened.



- Now you can see the listener you created and configured before in the list with the status up. Select it and click Next.

The Database Configuration Assistant - Storage Locations screen is opened.



10. Select Use Database File Locations from Template.
11. Click the File Location Variables... button.

The File Location Variables screen is opened.

Variable	Value
ORACLE_BASE	C:\oracle
ORACLE_HOME	C:\oracle\product\12.1.0\dbhome_1
DB_NAME	plm62
DB_UNIQUE_NAME	plm62
SID	plm62
PDB_NAME	
ORADATA1	D:\oradata
ORADATA2	D:\oradata
ORADATA3	D:\oradata
ORADATA4	D:\oradata
ORADATA5	D:\oradata
ORAARCH	D:\oradata
REDO1	D:\oradata
REDO2	D:\oradata

12. 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 plm62 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	Contents
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
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
3	Disk1: ORADATA1, ORADATA5 Disk2: ORADATA2, ORADATA4, REDO1 Disk3: ORADATA3, ORAARCH, REDO2
4	Disk1: ORADATA1, REDO1 Disk2: ORADATA2, REDO2 Disk3: ORADATA3, ORAARCH Disk4: ORADATA4, ORADATA5
5	Disk1: ORADATA1, REDO1 Disk2: ORADATA2, ORAARCH Disk3: ORADATA3, ORADATA5 Disk4: ORADATA4 Disk5: REDO2
6	Disk1: ORADATA1 Disk2: ORADATA2, ORAARCH Disk3: ORADATA3 Disk4: ORADATA4 Disk5: ORADATA5, REDO1 Disk6: REDO2
7	Disk1: ORADATA1 Disk2: ORADATA2 Disk3: ORADATA3 Disk4: ORADATA4 Disk5: ORADATA5, ORAARCH Disk6: REDO1 Disk7: REDO2

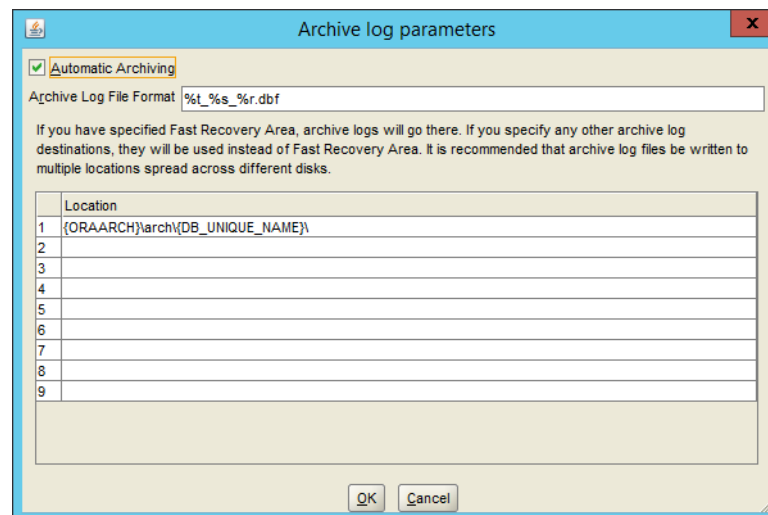
Number of Disks	Contents
8	Disk1: ORADATA1
	Disk2: ORADATA2
	Disk3: ORADATA3
	Disk4: ORADATA4
	Disk5: ORADATA5
	Disk6: ORAARCH
	Disk7: REDO1
	Disk8: REDO2

13. Click OK.

14. Deselect the option Specify Flash Recovery Area.

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

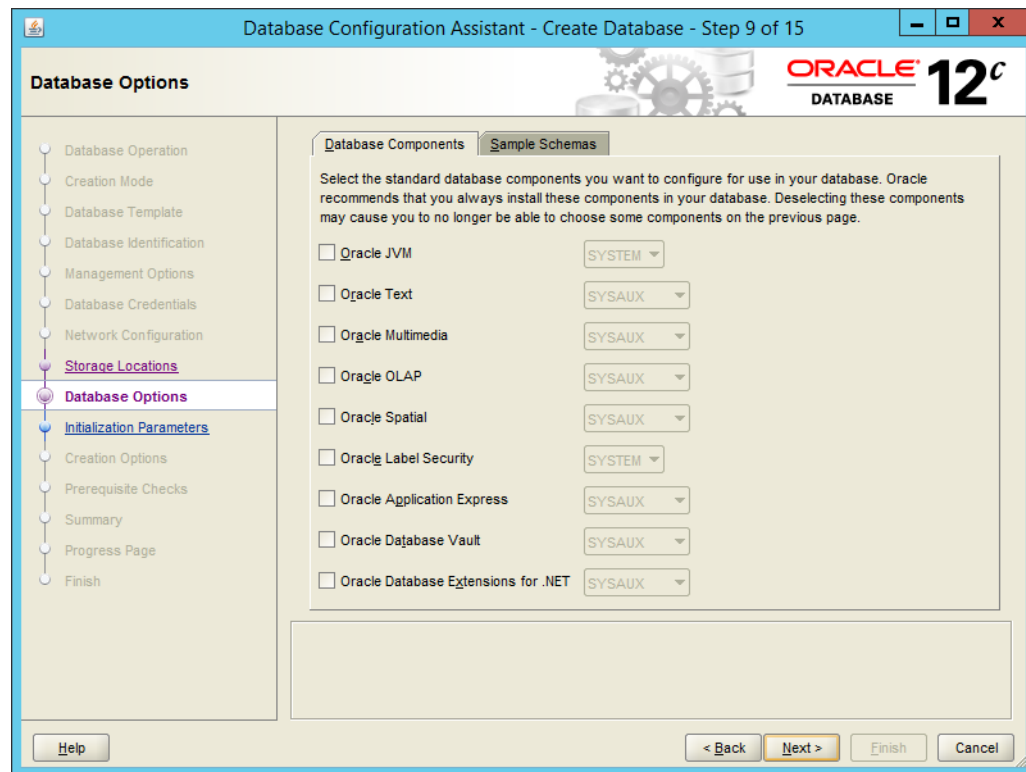
Note: For a productive database it is highly recommended to archive the database. To specify the destination of the archive directory, click the button Edit Archive Mode Parameters button (predefined by the variable ORAARCH).



After editing this screen, click OK to return to the Storage Location screen.

15. Click Next.

The Database Configuration Assistant - Database Options screen is opened.



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.

Note: If you have selected Oracle Application Express for customer specific installation, you have to change the initialization parameter `max_string_size` to standard.

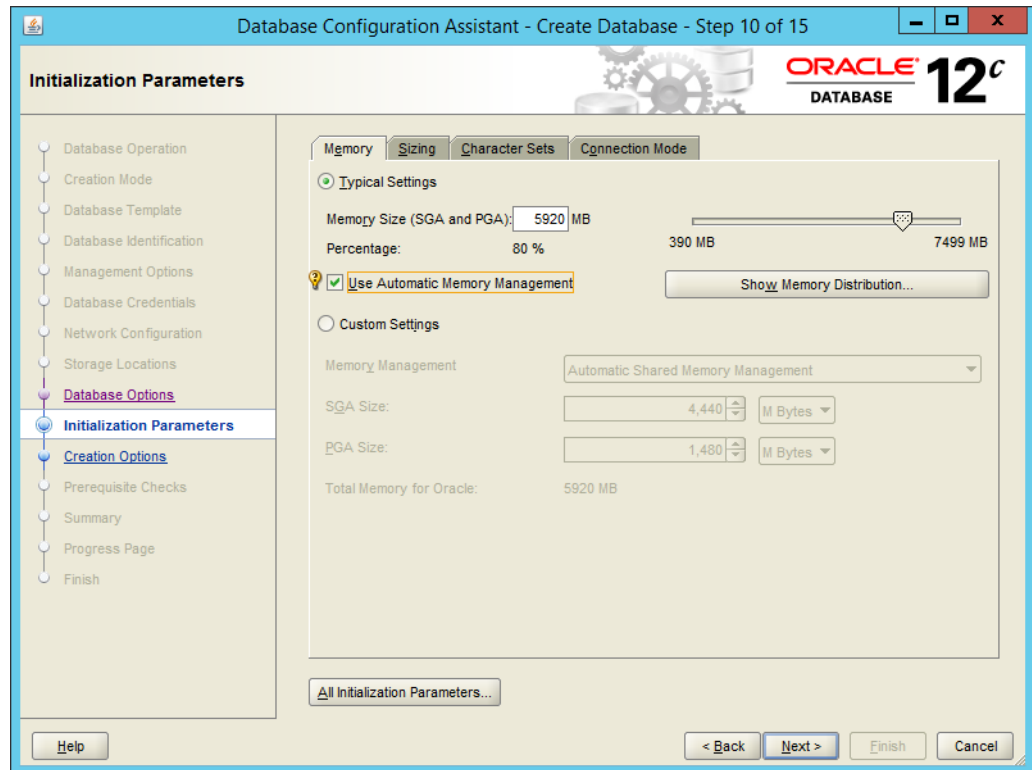
After the initial creation of the database, the parameter needs to be changed back to extended.

Please follow the guideline in the Oracle Database documentation

16. 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 e6.2.1.0.



17. Click All Initialization Parameters button to review all server parameters.

The All Initialization Parameters screen is opened.

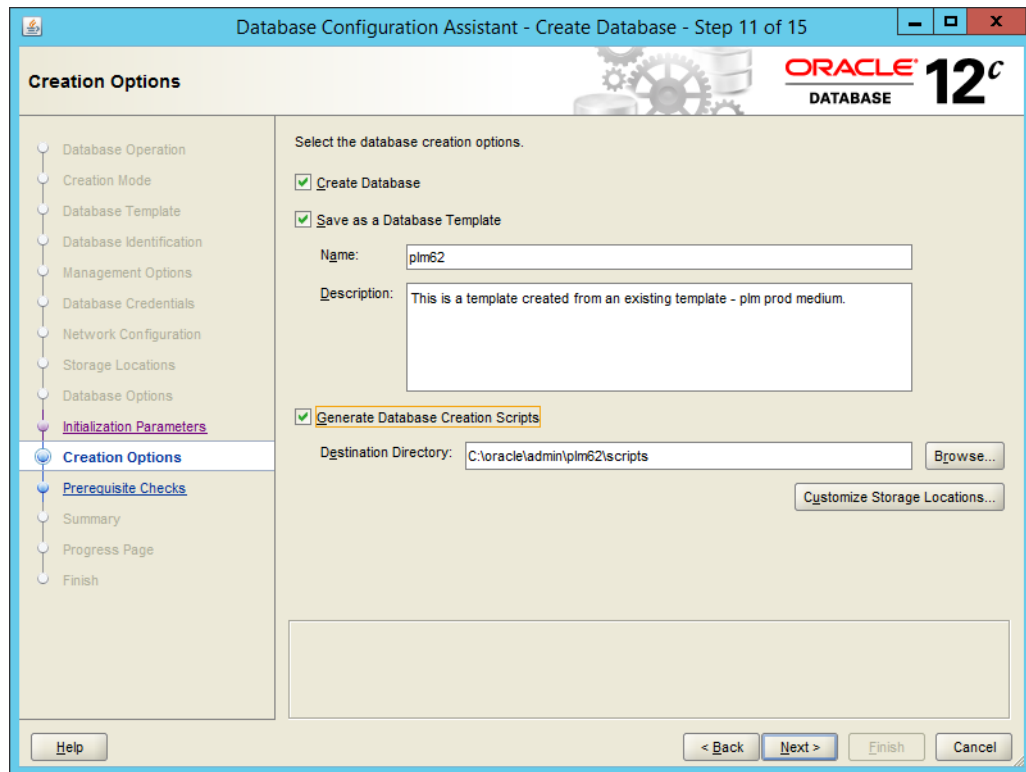
Click Show Advanced Parameters.

Name	Value	Override Default	Basic	Category
log_archive_duplex_dest				Archive
log_archive_format	%t_%s_%r.dbf	✓		Archive
log_archive_max_processes	4			Archive
log_archive_min_succeed_d...	1			Archive
log_archive_trace	0			Archive
log_buffer	5832704			Redo Log and Re...
log_checkpoint_interval	0			Redo Log and Re...
log_checkpoint_timeout	3600	✓		Redo Log and Re...
log_checkpoints_to_alert	FALSE			Redo Log and Re...
log_file_name_convert				Standby Database
max_dispatchers				Shared Server
max_dump_file_size	unlimited			Diagnostics and S...
max_shared_servers				Shared Server
max_string_size	extended	✓		Miscellaneous
memory_max_target	6000	✓		Miscellaneous
memory_target	5920			Miscellaneous
nls_calendar				NLS
nls_comp				NLS
nls_currency				NLS
nls_date_format				NLS
nls_date_language				NLS
nls_dual_currency				NLS
nls_iso_currency				NLS
nls_language	AMERICAN		✓	NLS

Note: Ensure that the value of memory_max_target is greater than the value of memory_target.

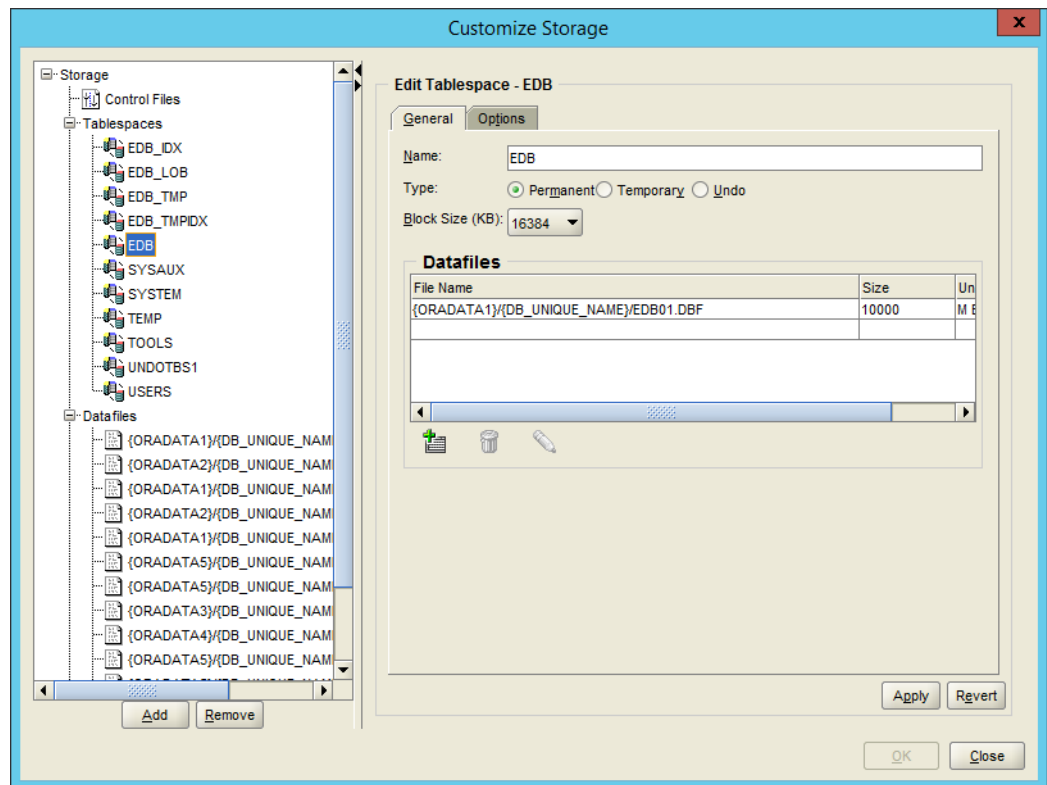
18. Click Close and then click Next.

The Database Configuration Assistant - Creation Options screen is opened.



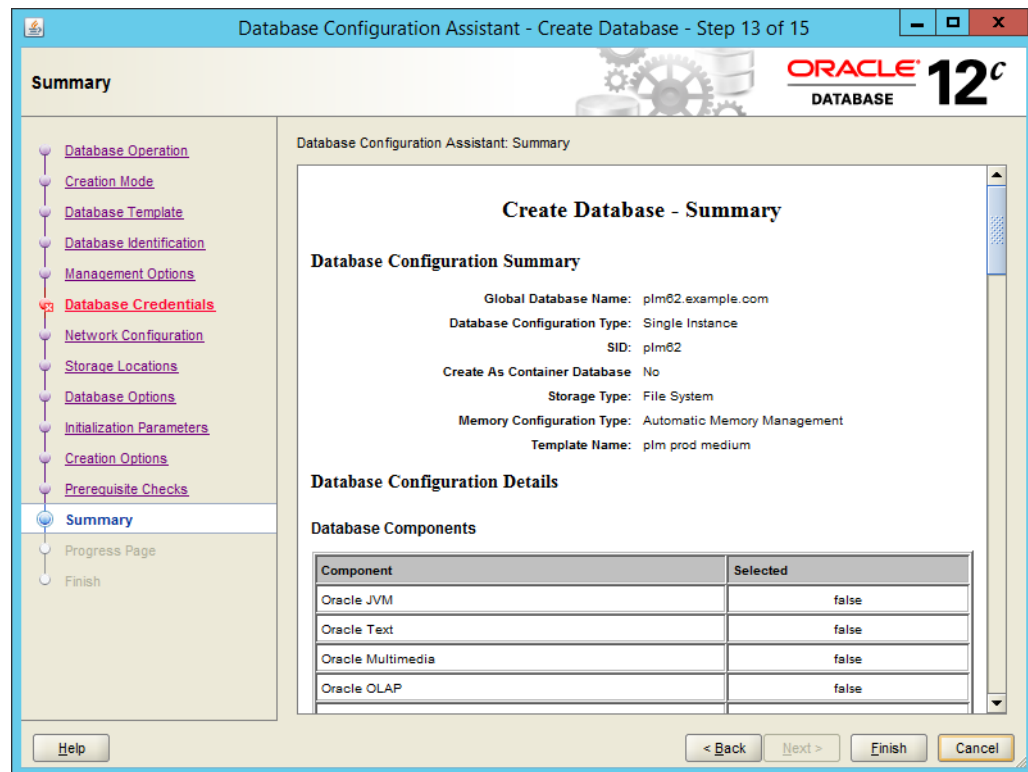
19. Click the Customize Storage Locations button to review the storage parameters for database creation.

The Customize Storage screen is opened.



20. Click Close to return to the Database Configuration Assistant - Creation Options screen.
21. Select Create Database, Save as a Database Template, and Generate Database Creation Scripts.
22. Click Next.

The Database Configuration Assistant - Summary screen is opened.



A summary of the database parameters is shown.

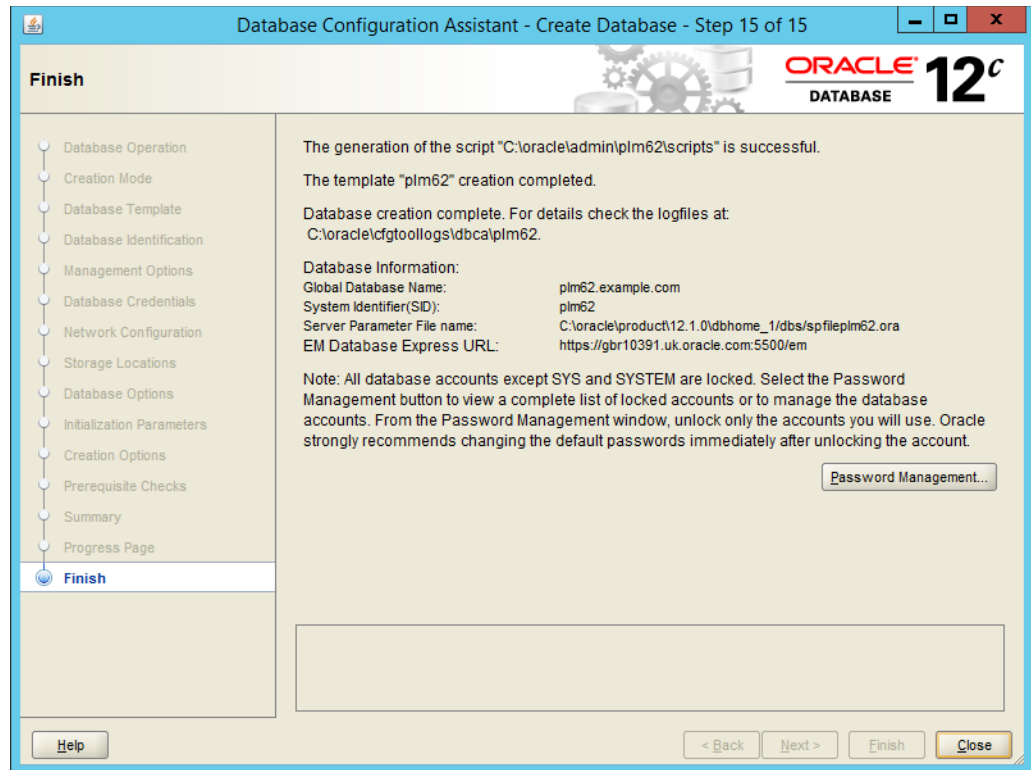
23. Click Finish.

The database creation process is started.

24. When the database creation is done, the summary screen is shown.

The EM database Express URL is listed for your access.

Click Close to finish the process.



25. Test the database connection with the following command:

```
sqlplus system@plm62/<SYSTEM password>
```

Configuring tnsnames.ora and sqlnet.ora

1. Start the Oracle Net Manager.

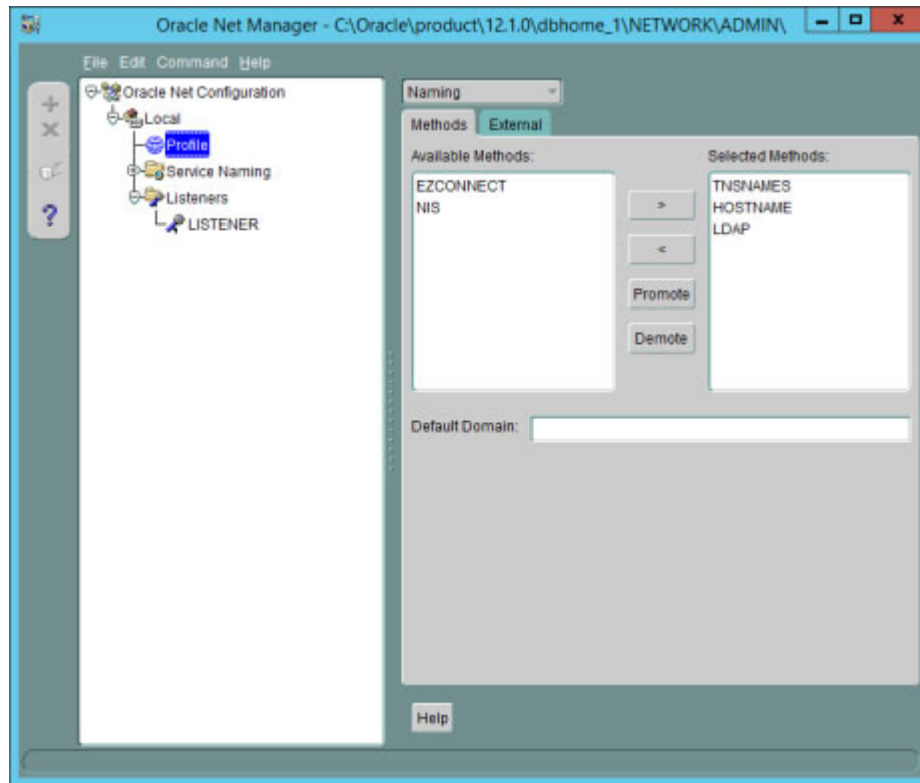
? Windows:

Click Start > All Programs > Oracle - OraClient12Home1_32bit > 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.

The sqlnet.ora and tnsnames.ora under \$ORACLE_HOME/network/admin/ will be created or updated.

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 e6.2.1.0) 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 e6.2.1.0 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 Express to Create a User How to find the port on which EM Express is configured:

- 7 When dbca completes, it indicates the port on which EM Express is configured.
- 7 If that information is no longer available, there are two ways to find the HTTP/HTTPS port for EM Express:

```
> lsnrctl status | grep HTTP
(DESCRIPTION=(ADDRESS=(PROTOCOL=tcps) (HOST=xxx.us.oracle.com) (PORT=5500)) (Security=(my_wallet_directory=/u01/oracle/app/oracle/admin/plm62/xdw_
wallet)) (Presentation=HTTP) (Session=RAW))
```

or from SQL*Plus:

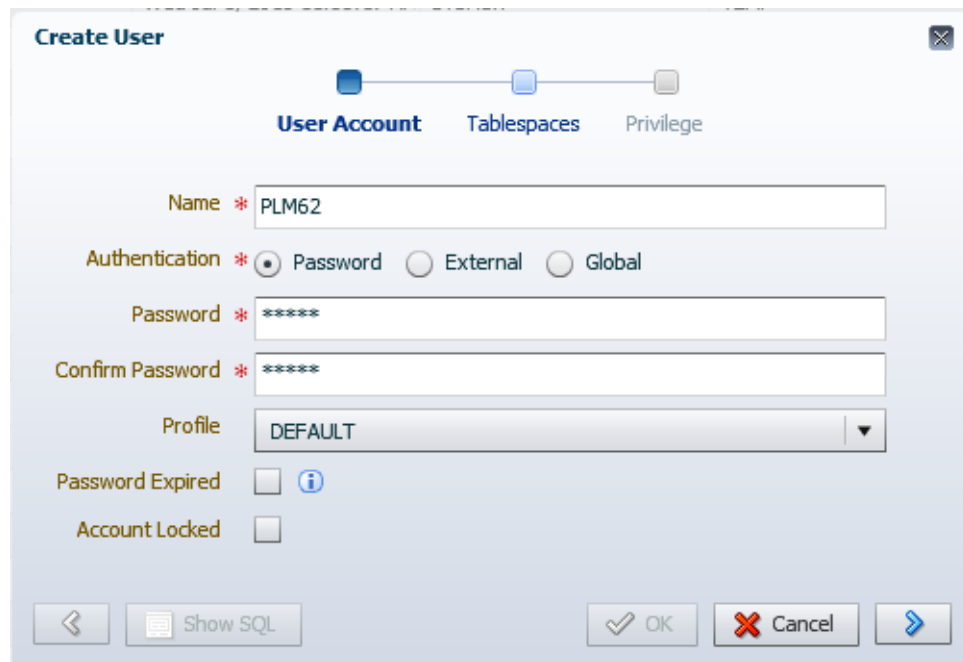
```
SQL> select dbms_xdb.getHttpPort() from dual;
GETHTTPPORT
-----
8080
SQL> select dbms_xdb_config.getHttpsPort() from dual;
GETHTTPSPORT
-----
5500
```

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

1. Open your browser and enter the following URL:
`https://<hostname>:<port>/em`
2. Enter your user credentials and click **Login**.
3. In the top menu bar, click **Security** and then select **Users**.

Name	Account Status	Expiration Date	Default Tablespace	Temporary Tablespace	Profile	Created
ANONYMOUS	🔒	Wed Jul 1, 2015 11:38:40 AM	SYS\$NULL	TEMP	DEFAULT	Wed Jul 1, 2015 11:33:26 AM
APPQOSSYS	🔒	Wed Jul 1, 2015 11:33:18 AM	SYS\$NULL	TEMP	DEFAULT	Wed Jul 1, 2015 11:33:18 AM
AUDSYS	🔒	Wed Jul 1, 2015 11:20:47 AM	USERS	TEMP	DEFAULT	Wed Jul 1, 2015 11:20:47 AM
DESNMP	🔒	Wed Jul 1, 2015 11:33:17 AM	SYS\$NULL	TEMP	DEFAULT	Wed Jul 1, 2015 11:33:17 AM
DIP	🔒	Wed Jul 1, 2015 11:23:36 AM	USERS	TEMP	DEFAULT	Wed Jul 1, 2015 11:23:36 AM
GSMADMIN_INTERNAL	🔒	Wed Jul 1, 2015 11:23:29 AM	SYS\$NULL	TEMP	DEFAULT	Wed Jul 1, 2015 11:23:29 AM
GSMCATUSER	🔒	Wed Jul 1, 2015 11:37:25 AM	USERS	TEMP	DEFAULT	Wed Jul 1, 2015 11:37:25 AM
GSMUSER	🔒	Wed Jul 1, 2015 11:23:29 AM	USERS	TEMP	DEFAULT	Wed Jul 1, 2015 11:23:29 AM
ORACLE_OCM	🔒	Wed Jul 1, 2015 11:25:07 AM	USERS	TEMP	DEFAULT	Wed Jul 1, 2015 11:25:07 AM
OUTLN	🔒	Wed Jul 1, 2015 11:20:49 AM	SYSTEM	TEMP	DEFAULT	Wed Jul 1, 2015 11:20:49 AM
SYS	✅	Mon Dec 28, 2015 11:20:47 AM	SYSTEM	TEMP	DEFAULT	Wed Jul 1, 2015 11:20:47 AM
SYSBACKUP	🔒	Wed Jul 1, 2015 11:20:47 AM	USERS	TEMP	DEFAULT	Wed Jul 1, 2015 11:20:47 AM
SYSDG	🔒	Wed Jul 1, 2015 11:20:47 AM	USERS	TEMP	DEFAULT	Wed Jul 1, 2015 11:20:47 AM
SYSKM	🔒	Wed Jul 1, 2015 11:20:47 AM	USERS	TEMP	DEFAULT	Wed Jul 1, 2015 11:20:47 AM
SYSTEM	✅	Mon Dec 28, 2015 11:20:47 AM	SYSTEM	TEMP	DEFAULT	Wed Jul 1, 2015 11:20:47 AM
WMSYS	🔒	Wed Jul 1, 2015 11:37:46 AM	SYS\$NULL	TEMP	DEFAULT	Wed Jul 1, 2015 11:37:46 AM
XDB	🔒	Wed Jul 1, 2015 11:33:26 AM	SYS\$NULL	TEMP	DEFAULT	Wed Jul 1, 2015 11:33:26 AM
XS\$NULL	🔒	Wed Jul 1, 2015 11:24:34 AM	USERS	TEMP	DEFAULT	Wed Jul 1, 2015 11:24:34 AM

4. Click **Create User** on the user list.
5. Insert a user name and password in the pop-up dialog.



Create User

User Account Tablespace Privilege

Name * PLM62

Authentication * ☒ Password ☐ External ☐ Global

Password * *****

Confirm Password * *****

Profile DEFAULT

Password Expired ☐ ⓘ

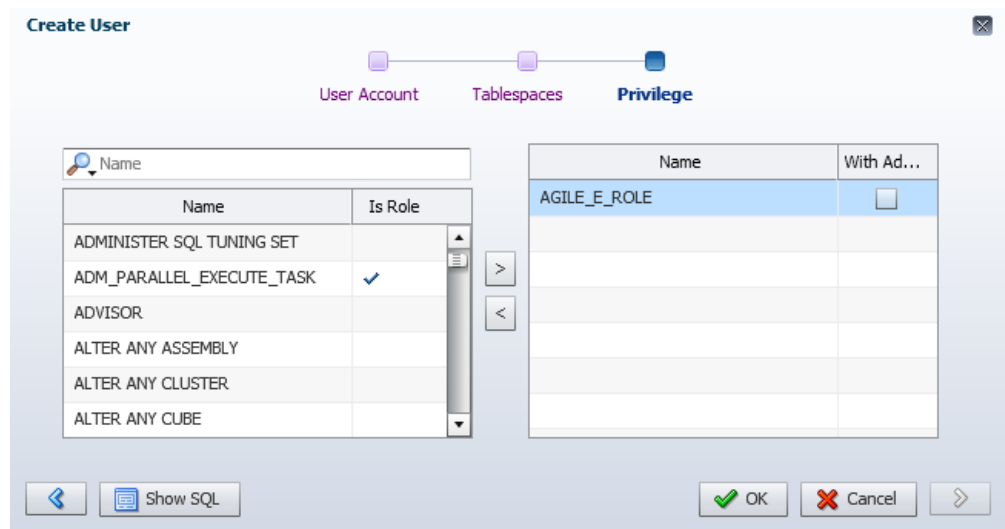
Account Locked ☐

< Show SQL OK Cancel >

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

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

The role AGILE_E_ROLE was created in the previous section "Create a Database User and Role."



Create User

User Account Tablespace **Privilege**

Name

Name	Is Role
ADMINISTER SQL TUNING SET	
ADM_PARALLEL_EXECUTE_TASK	✓
ADVISOR	
ALTER ANY ASSEMBLY	
ALTER ANY CLUSTER	
ALTER ANY CUBE	

Name	With Ad...
AGILE_E_ROLE	<input type="checkbox"/>

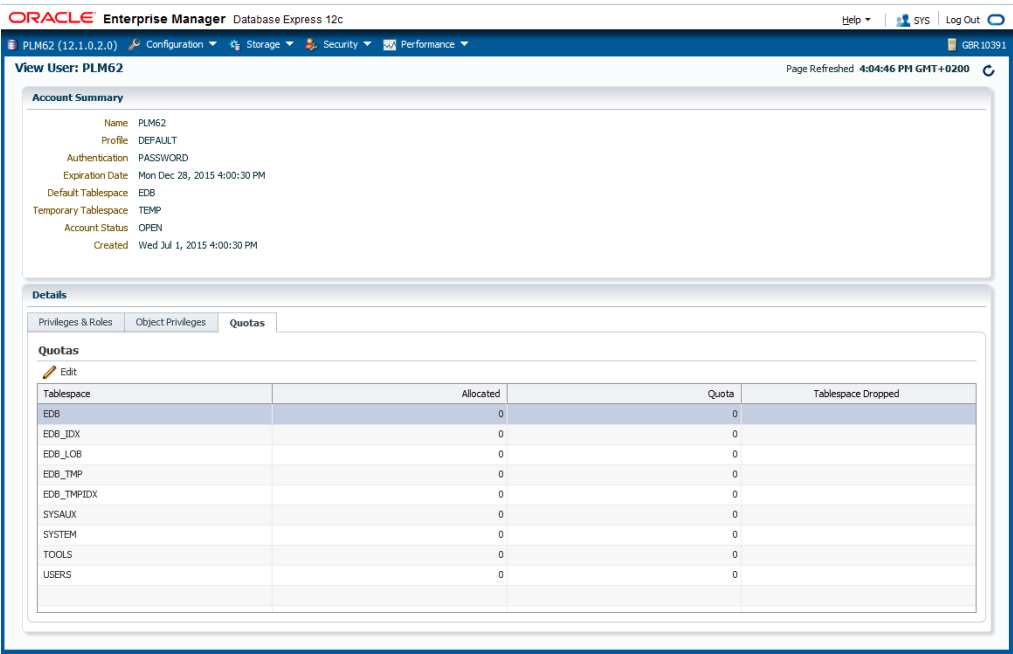
< Show SQL OK Cancel >

8. Click Move.

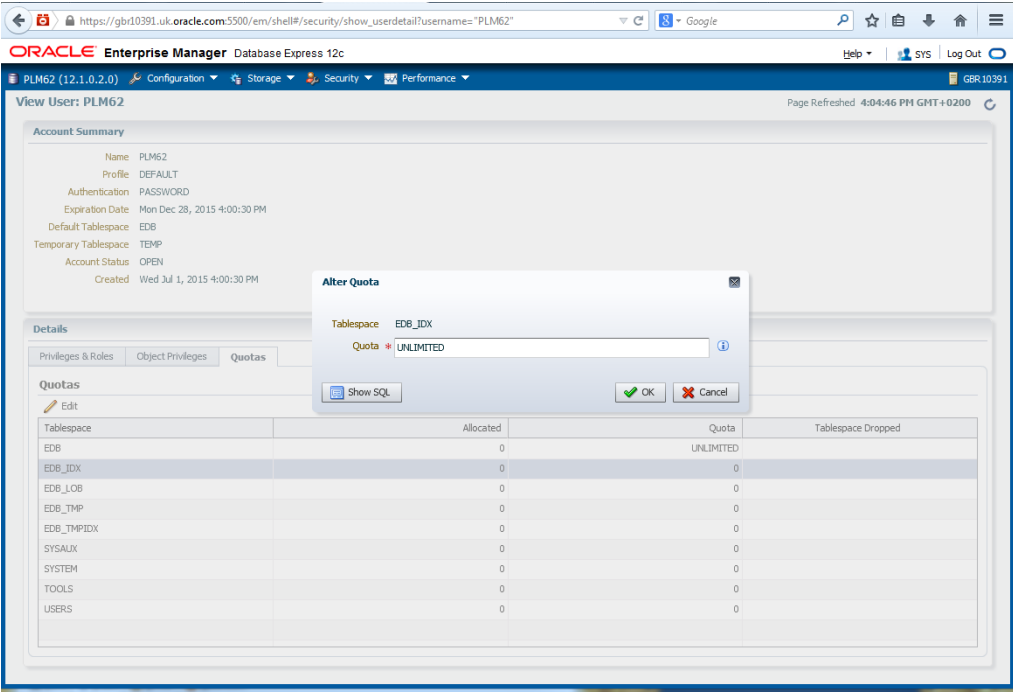
The role is moved to the Selected Roles list.

Click **OK**.

9. Click the newly created user and open the tab **Quotas**.



10. Assign unlimited quota to EDB, EDB_IDX, EDB_LOB, EDB_TMP, and EDB_TMPIDX.



The user creation is finished.

Import the Database Dump

Import the Agile e6.2.1.0 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.AL32UTF8.

Check the registry for the value of the variable NLS_LANG - HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\KEY_<12c installation>

? UNIX

Make sure that the correct value is set for the environment variable NLS_LANG (value from the file csh_ORA12.1.0 - AMERICAN_AMERICA.WE8MSWIN1252).

1. Start the import.

```
imp username/pass@plm61 file=plm62.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

Note: You can import only your own e6 dmp files which were created in a database in which the initialization parameter max_string_size =standard. Be aware that the e6 database has set this parameter to extended. Please use data pump utilities (expdp, impdp) instead. For more details, see Oracle 12c Database documentation.

All standard dmp files delivered on Oracle edelivery for e6.2.1.0 can be imported with imp/exp utility.

Compile All Invalid Objects in Schema PLM

After importing the Agile e6.2.1.0 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 12c, 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`

Oracle Database 19c

Oracle Database Prerequisites 19c

Note: This chapter describes prerequisites for installing the Oracle Database 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

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: This 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/12.0.1

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 e6.2.1.0

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
```

Installing Oracle Database Server 19c

This chapter describes the manual installation of the Oracle Database Server.

Note: If you have already installed Oracle database client (32-bit) on the same machine, please restart it before installing the Oracle database server.

Start the Oracle Database installation

1. Run the installer from the downloaded Oracle Installation Media

Windows

Run setup.exe

UNIX

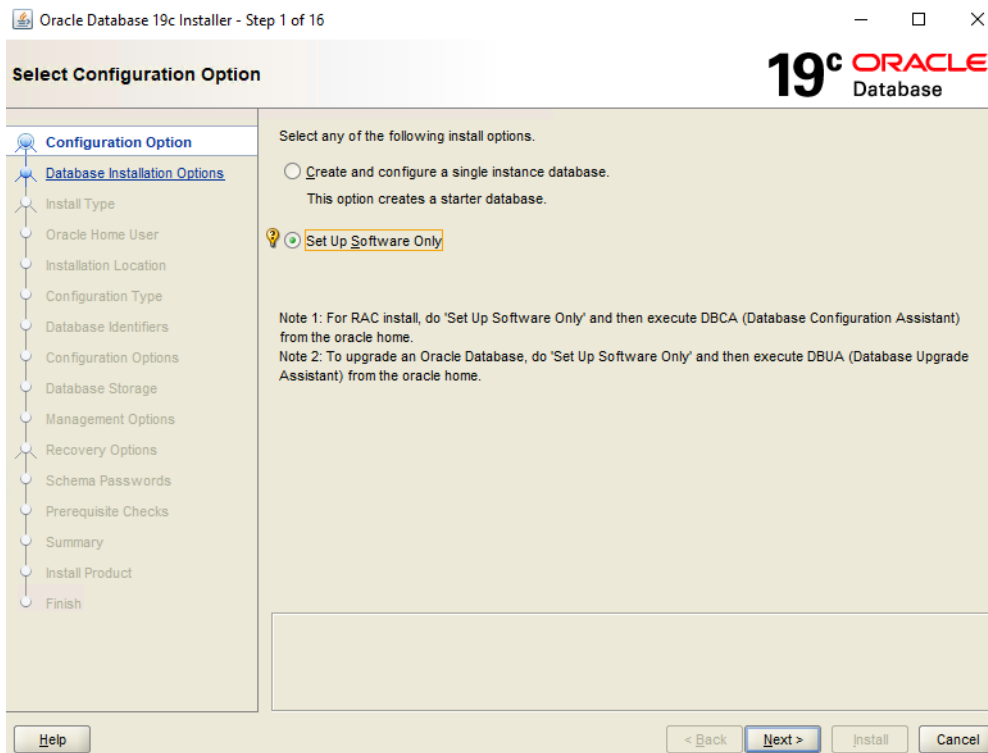
Log in as the oracle user and navigate to the database directory. Start the Oracle Universal Installer with the following command:

```
./runInstaller
```

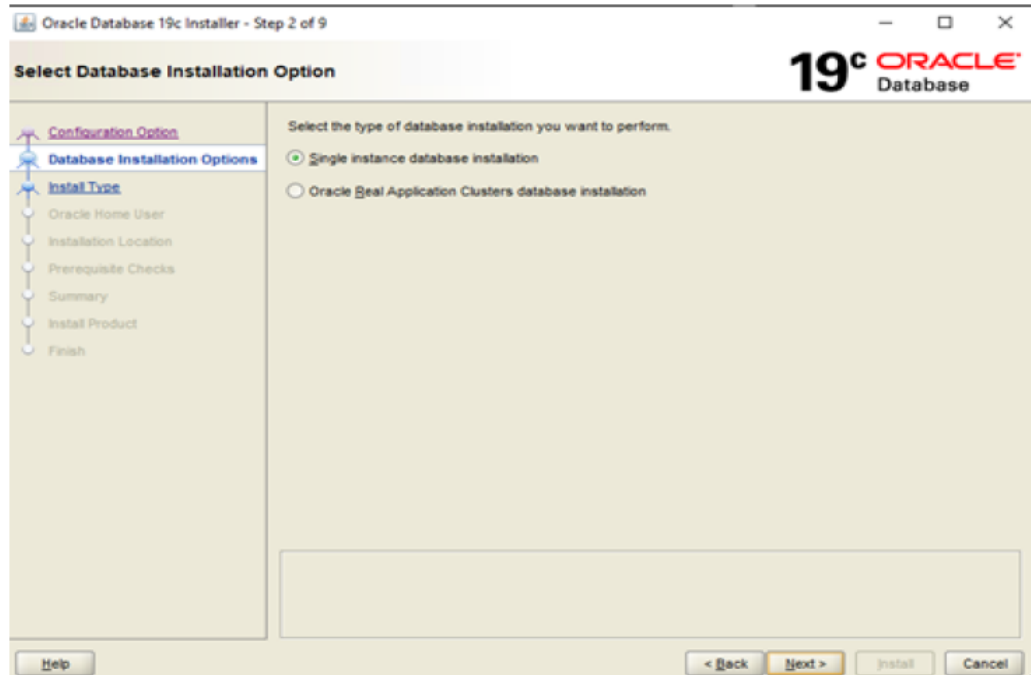
Note: You must extract the image software (<DB server installer>.zip) into the directory where you want your Oracle Database home to be located, and then run the Oracle Database Setup Wizard to start the Oracle Database installation and configuration. Oracle recommends that the Oracle home directory path you create is in compliance with the Oracle Optimal Flexible Architecture recommendations.

The Select Configuration Option screen is opened.

2. Choose "Set up Software Only" and click Next.



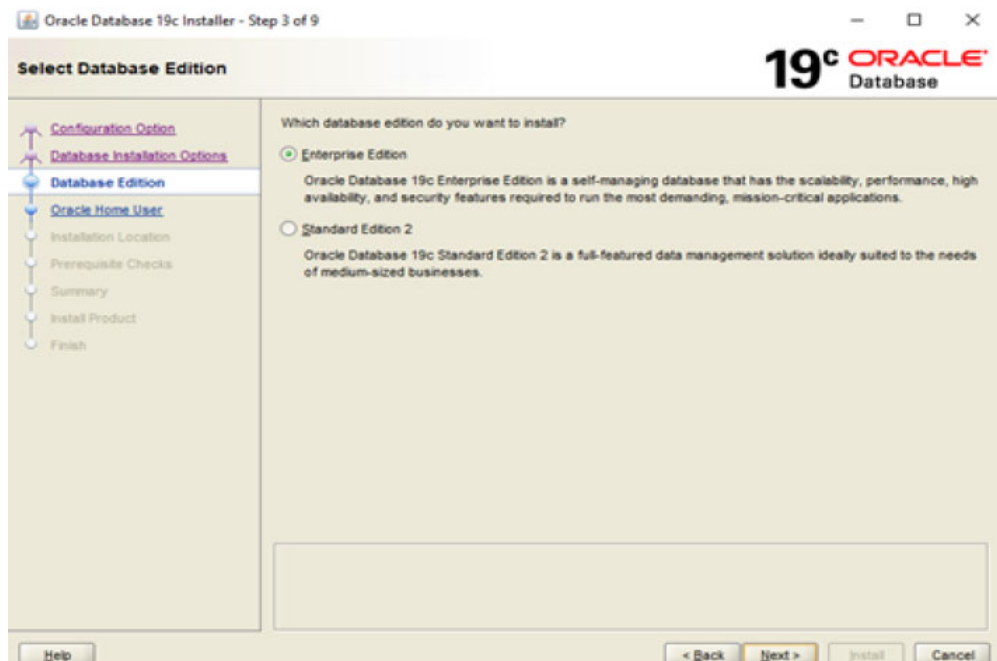
3. In the Database Installation Options, select "Single instance database installation" and click Next



Note: The Real Application Cluster database installation is not covered under this guide.

4. For the database edition, please choose "Enterprise Edition and click Next

Note: Depending on the installer package, there may be more options under this step but we will only cover Enterprise Edition installation



5. Windows Only

The Oracle Home User is different from an Oracle Installation User. The Oracle Installation User is the user who requires administrative privileges to install Oracle products. The Oracle Home User is used to run the Windows services for the Oracle Home.

The Oracle Home User can be the Windows built-in account or a Windows User Account. For enhanced security, Oracle recommends that a standard Windows User Account be chosen as the Oracle Home User for a database server installation. If a Windows user account is used, it must be a standard Windows user account (not an administrator) and for single instance database installations can be a local user, a domain user, or a managed services account. For Oracle Database RAC installations, the Windows user account must be a domain user.

Specify the Oracle home user and click Next.

Oracle Database 19c Installer - Step 4 of 9

Specify Oracle Home User

For enhanced security, you may choose to run Windows Services from this Oracle home with a non-administrator account. Oracle recommends that you choose a Virtual Account or specify a standard Windows User Account for this purpose.

☐ Use Virtual Account
☐ Use Existing Windows User
☒ Create New Windows User

User Name:

Password:

User Name:

Password:

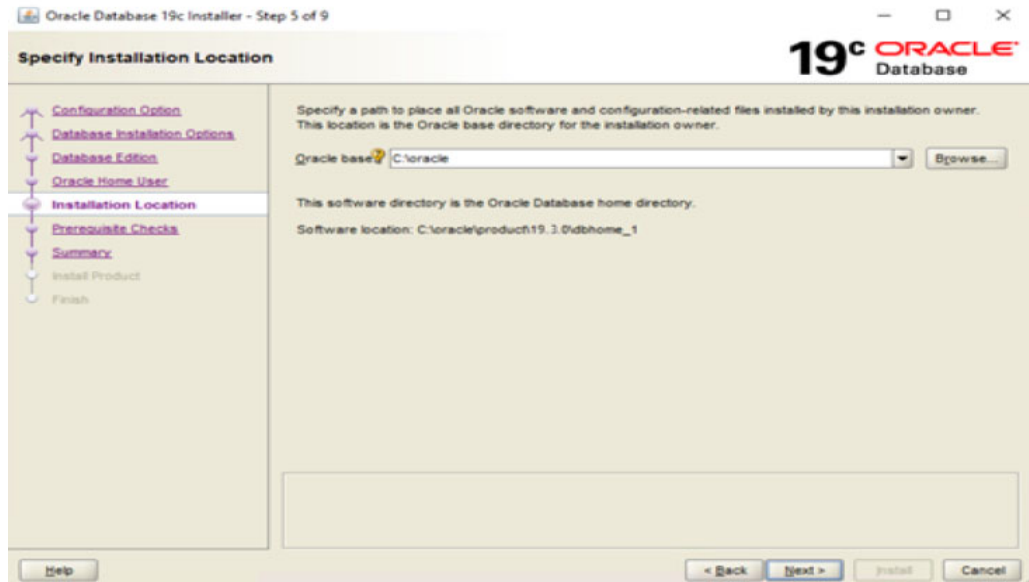
Confirm Password:

The newly created user is denied Windows logon privileges.

☐ Use Windows Built-in Account

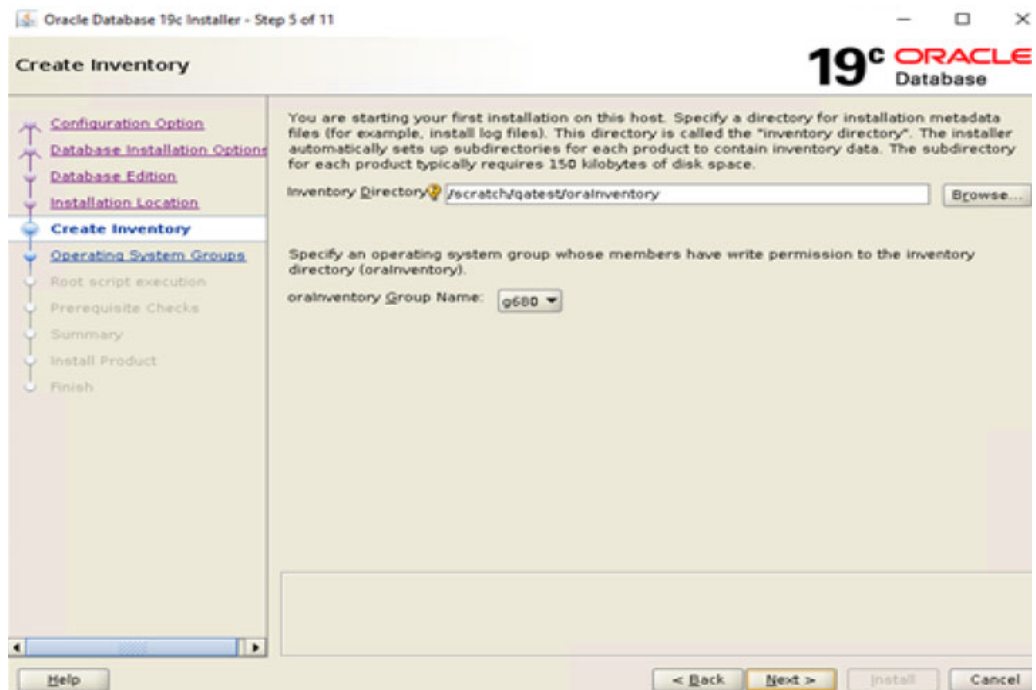
Help < Back Next > Install Cancel

6. Specify the installation location for the Oracle Base directory and click Next



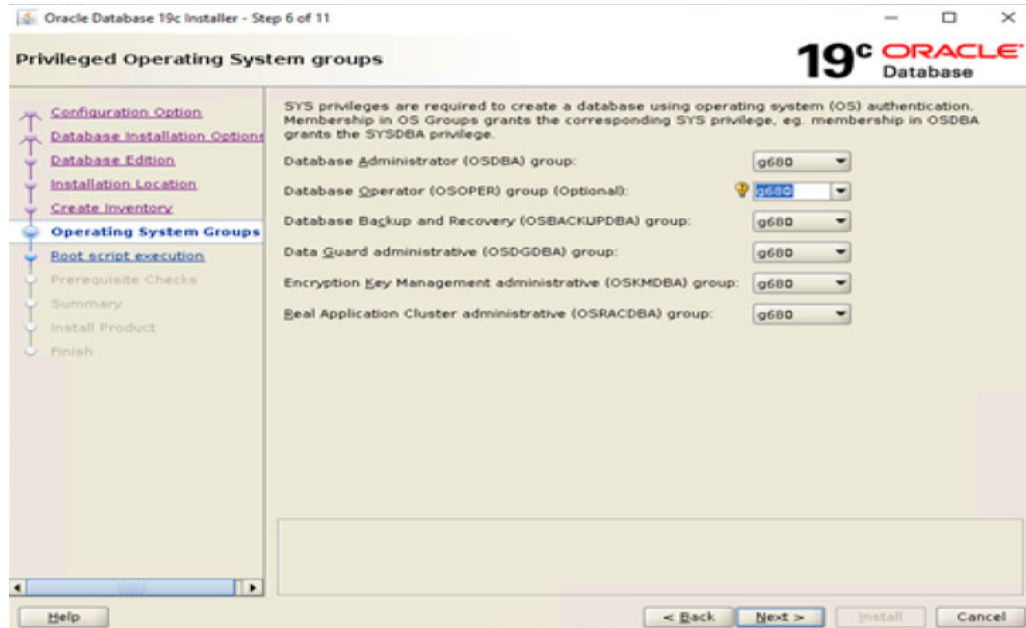
7. UNIX ONLY.

Specify an Inventory directory and the proper Group to handle the oraInventory directory and click Next



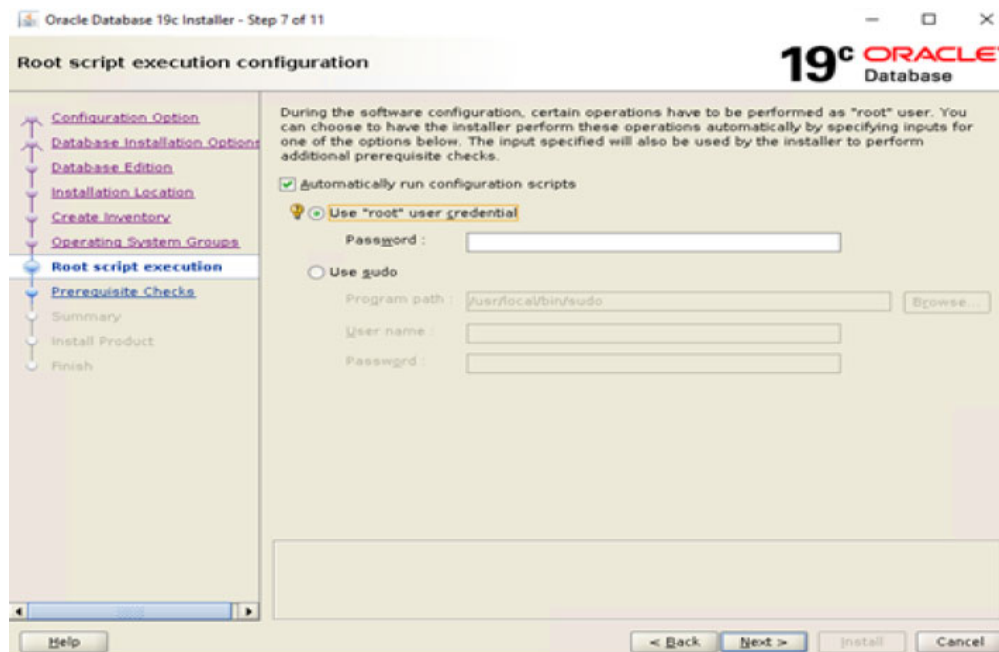
8. UNIX ONLY.

Set the corresponding group that will be responsible for each item and click Next.

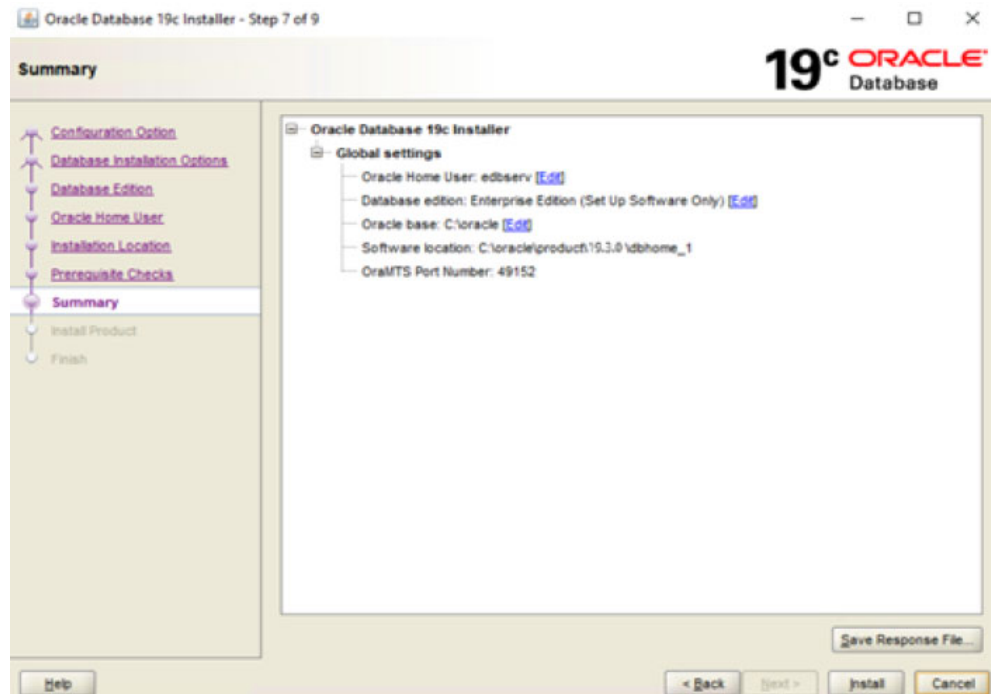


9. UNIX ONLY.

Define the user with root privileges and click Next.



10. Wait for prerequisite checks and the summary page.



11. Click Install

Note: UNIX Only

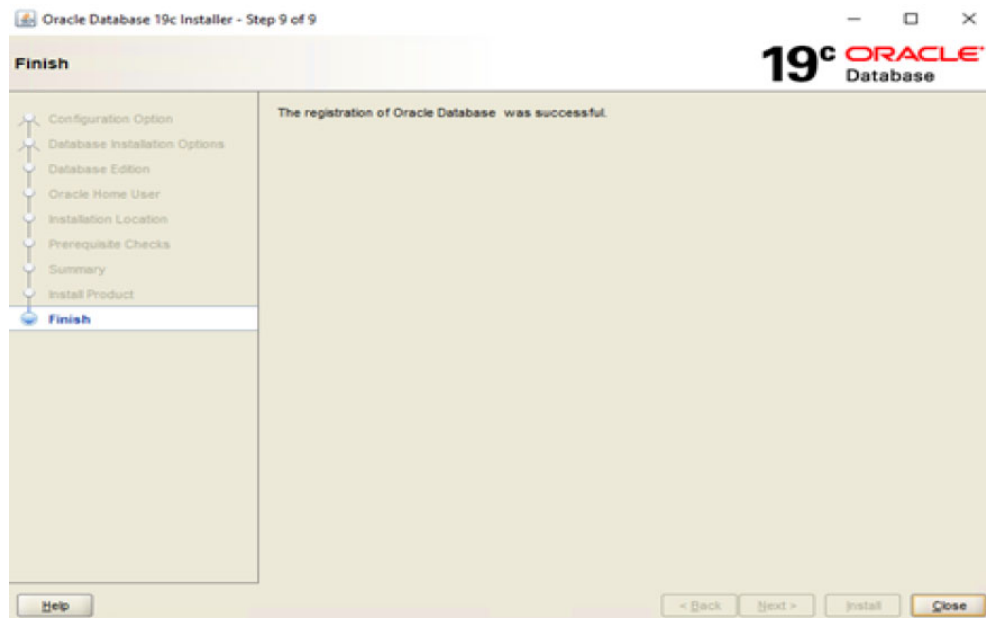
The "Fix & Check Again" button and the function to create a Fixup Script will only appear on a UNIX operating system.

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.

For manual fixing of the pre-installation steps, you can refer to this link:
<https://docs.oracle.com/en/database/oracle/oracle-database/19/ladbi/completing-preinstallation-tasks-manually.html#GUID-54959149-E611-48EC-BDDF-F379E8B35C97>

12. Wait for the installation to be finished and click Close.



Installing Oracle Database Client

Note: This chapter describes the manual installation of the Oracle Database client. Keep in mind that only the manual installation can be performed for Oracle 19c Database client.

Note: If you have already installed Oracle database server on the same machine, please restart it before installing the Oracle database client.

Note: The 32-bit Oracle client must be installed on the same machine where Agile e6.2.1.0 is installed.

1. The first step of the installation is different for Windows and UNIX.

 ? Windows

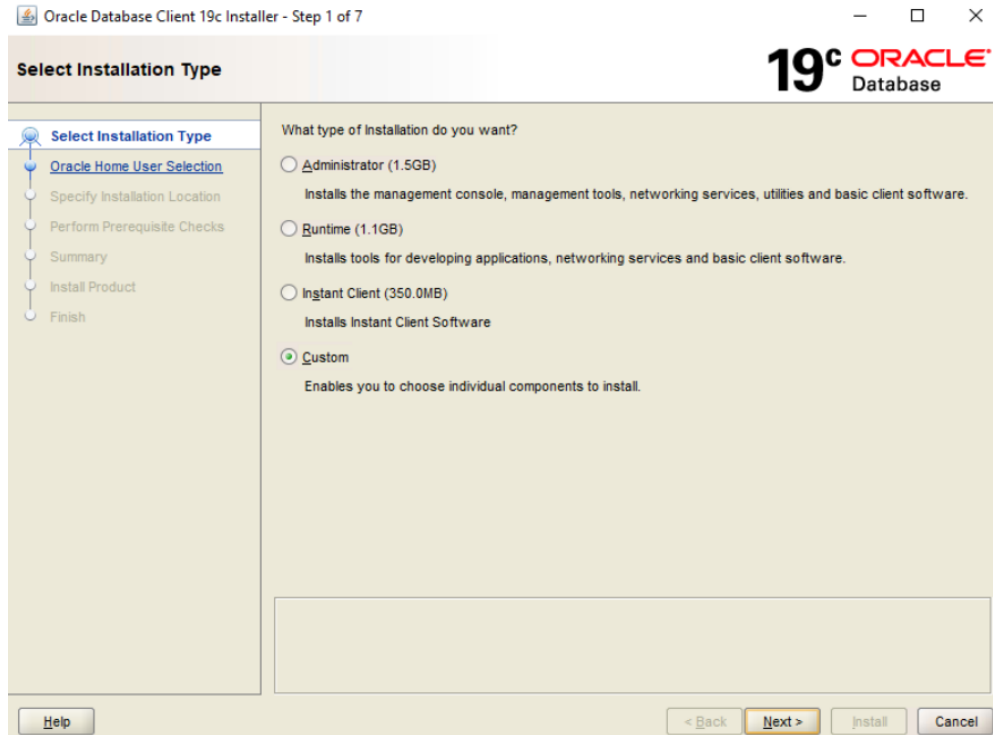
- Run “setup.exe” from the downloaded Oracle Installation Media.

 ? UNIX

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

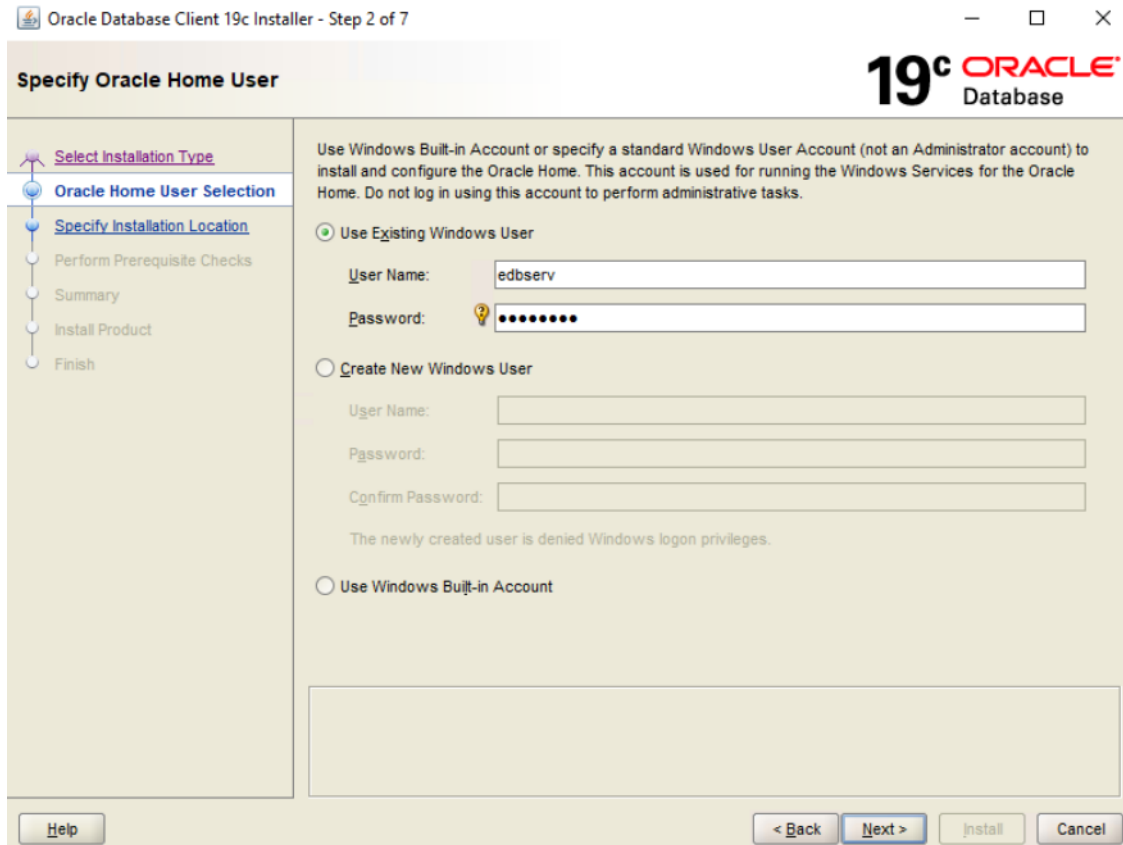
```
./runInstaller
```

The Select Installation Type screen is opened.

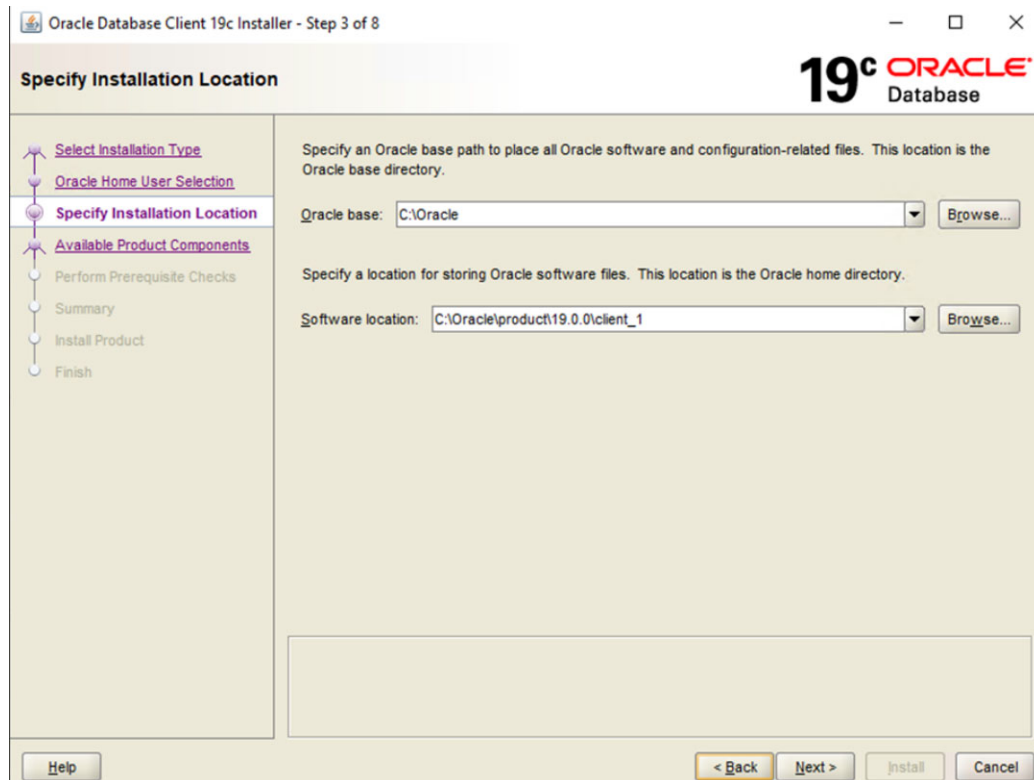


2. Select “Custom” and click “Next”.

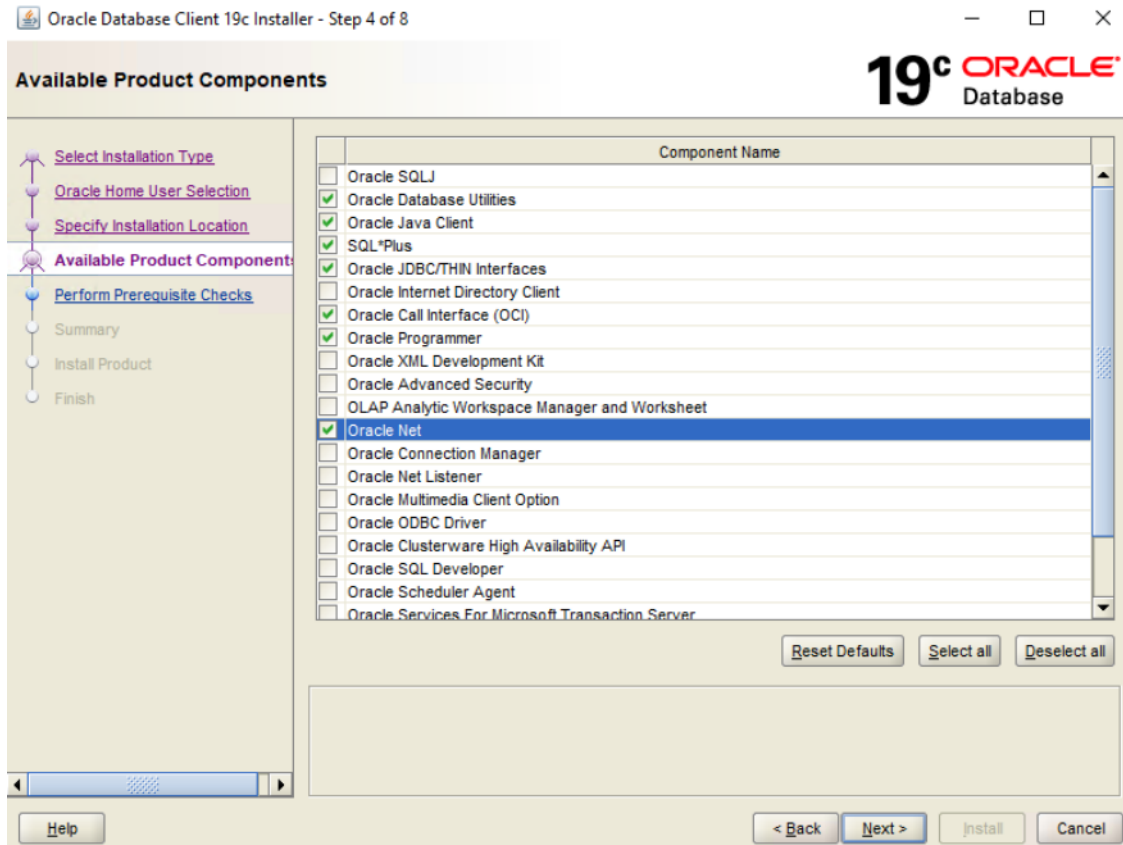
The “Specify Oracle Home User screen” is opened.



- The Oracle home user is different from an Oracle installation user. The Oracle installation user is the user who requires administrative privileges to install Oracle products. The Oracle home user is used to run the Windows services for the Oracle home. The Oracle home user can be the Windows built-in account or a Windows user account. For enhanced security, Oracle recommends that a standard Windows user account has to be chosen as the Oracle home user for a database client installation. If a Windows user account is used, it must be a standard Windows user account (not an administrator) and can be a local user, a domain user, or a managed services account.
3. Specify the Oracle home user and click “Next”.
The “Specify Installation Location” screen is opened.



4. Specify the installation location for the Oracle base directory and the Oracle home directory.
5. Click “Next”.
 - a. 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.
 - b. 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.
6. Click “Yes” to override the warning.



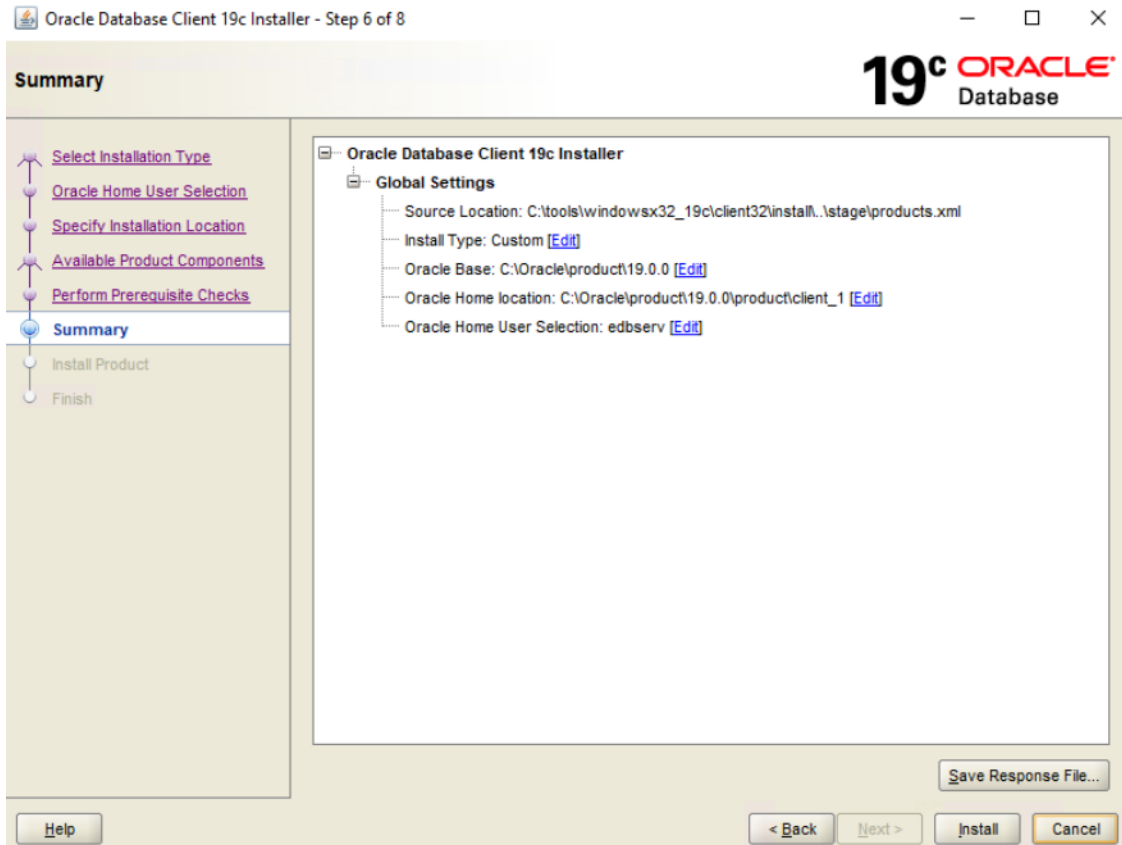
7. Select the following components to install (as shown in the screen above):

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

8. Click “Next”.

The Perform Prerequisites Checks screen is opened, displaying the verification process. The Perform Prerequisite Checks screen verifies if your computer meets the minimum system requirements to install the desired product.

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 for 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

9. Upon completion, the “Finish screen” is opened.

10. Click “Close” to exit the Oracle Client Installer.

Installing Oracle Database Client Patch

The database client of Oracle Database 19c (19.3.0) requires the following patch (32-bit) to be installed:

- WINDOWS DATABASE BUNDLE PATCH 19.13.0.0.211019 - 33155330

? - UNIX DATABASE RELEASE UPDATE 19.13.0.0.0 - 33192793

Note: Further information and instructions about these database client patches can be found in the respective Readme file from the Oracle Patches and Updates support website.

Installation Example for Windows:

Note: You must use the OPatch utility version 12.2.0.1.27 or later to apply this patch. The readme of the database patch provides the download link for the necessary OPatch update.

```
unzip p33155330_190000_WINNT.zip
cd 33155330
%ORACLE_HOME%\OPatch\opatch.bat apply
```

Installation Example for UNIX:

Note: Ensure that the Oracle home on which you are installing the patch, or from which you are rolling back the patch, is Oracle Database 19c Release 19.3.0

```
$ unzip -d <PATCH_TOP_DIR> p33192793_190000__<UNIX-SYSTEM>.zip
$ cd <PATCH_TOP_DIR>/33192793
$ $ORACLE_HOME/OPatch/opatch apply
```

Post-Installation Configuration

NTLM is no longer enabled by default in 19c

Upon using the e6 server deployed in a Windows Server, you may encounter an "Incorrect Username or Password" in e6 Java Client. This indicates that e6 application server is encountering **ORA-12638: Credential retrieval failed** (visible in the C server logs). This error is introduced due to NTLM being no longer enabled by default in 19c while your Windows Servers are still using NTLM as Authentication Protocol.

The default value for NO_NTLM is now TRUE in 19c. If NTLM is still used, please explicitly add SQLNET.NO_NTLM=FALSE in \$ORACLE_HOME/network/admin/sqlnet.ora on both client and server side. DB server requires restart if this parameter is updated (refer to MOS Note DOC ID [2757734.1](#) for details)

Post-Installation Modifications for the Oracle Database 19c

Creating the Database

Note: This chapter describes the manual creation of the Database schema. Keep in mind that only the manual creation can be performed for Oracle Database 19c.

Before creating the database instance, the database listener needs to be configured.

Configure the Listener

1. Start the Oracle Net Configuration Assistant.
 - ? Windows
 1. Start the Oracle Net Configuration Assistant.
 2. Click Start > All Programs > Oracle - OraDb19c_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:

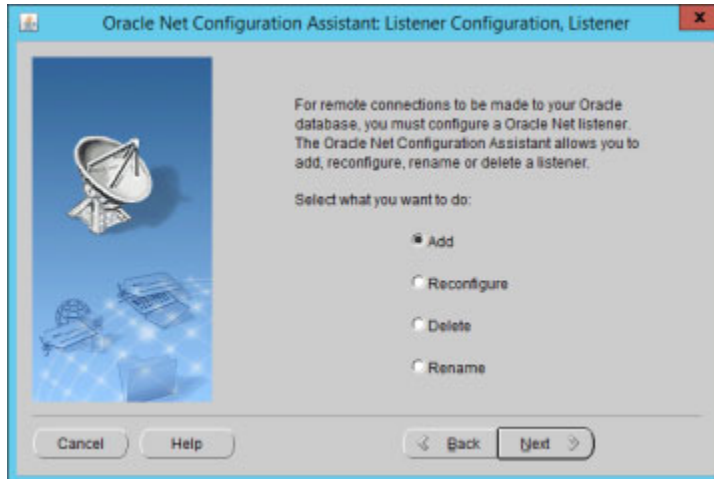
```
$ORACLE_HOME/bin/netca
```

The Oracle Net configuration Assistant - Welcome screen is opened.



2. Select the Listener configuration and click Next.

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



3. Select Add and click Next.

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



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

If you created the Oracle home user with non-Windows-Built-In Account while installing oracle database server, the password for the Oracle home user is here required.

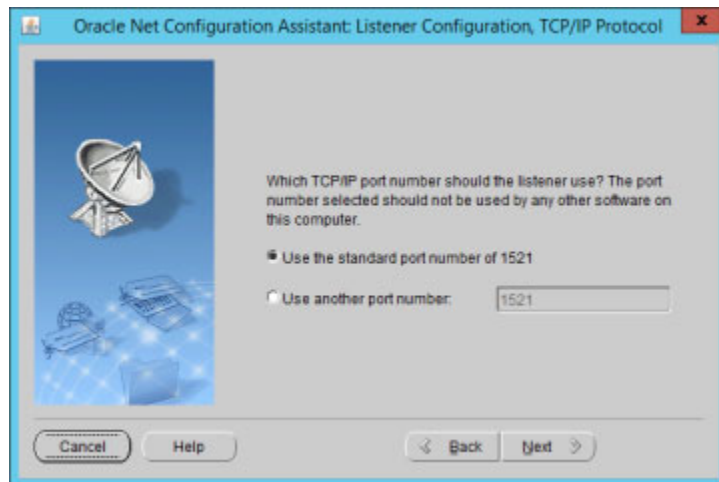
5. Click Next.

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



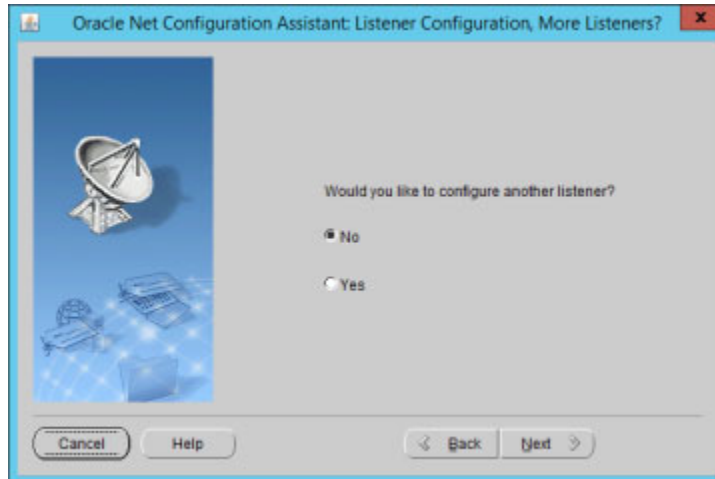
6. Make sure TCP is listed in the Selected Protocols list and click Next.
TCP is the default selection.

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



7. Select the standard port number of 1521.
You may choose any port number that has not been used yet.
8. Click Next.

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



9. Select No and click Next.

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



10. Click Next and finish to close the Listener Configuration.

Your database listener is now created and started.

Configuring the Database Net Service Name

This section 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.

1. Start the Oracle Net Services Configuration Assistant.

 ? Windows

Click Start > All Programs > Oracle - OraClient12Home1_32bit > Configuration and Migration Tools > Net Configuration Assistant.

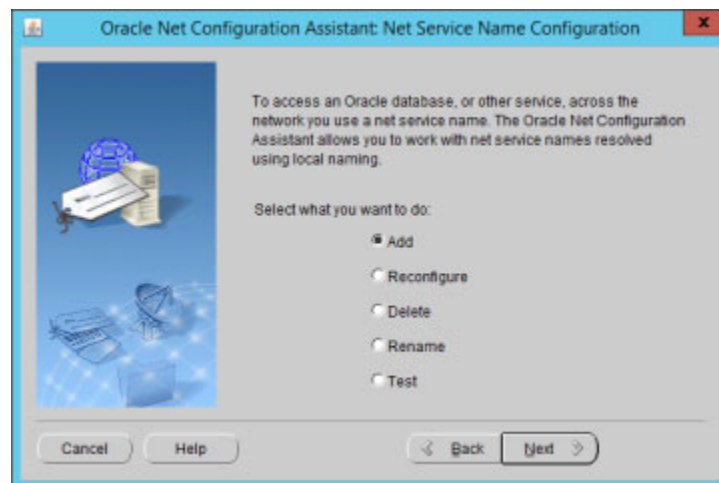
7. UNIX

Enter the command: `$ORACLE_HOME/bin/netca`

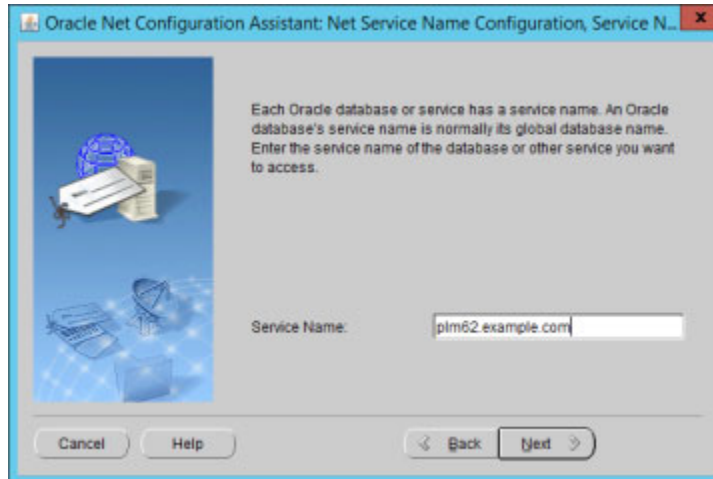
The Welcome to the Oracle Net Configuration Assistant screen is opened.



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



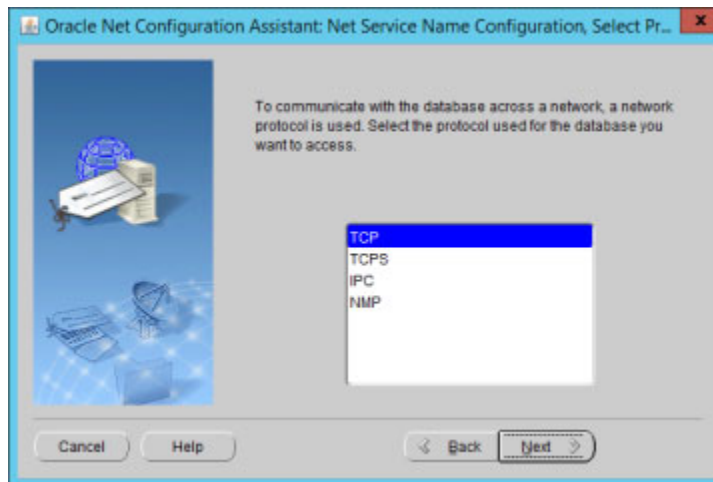
3. Select Add and click Next.



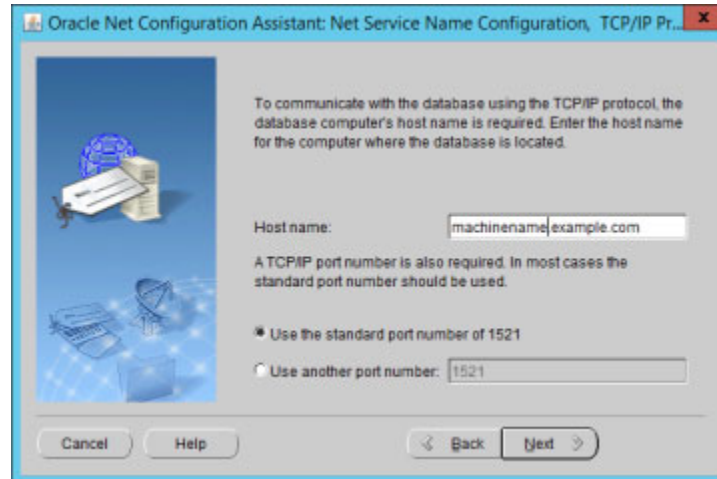
4. Enter the Service Name.

This is the global database name you provided by the database creation. In the example it is plm62.example.com.

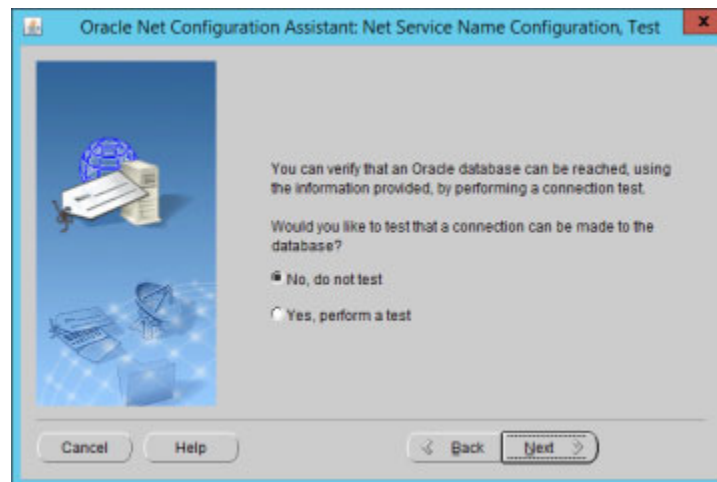
5. Click Next.



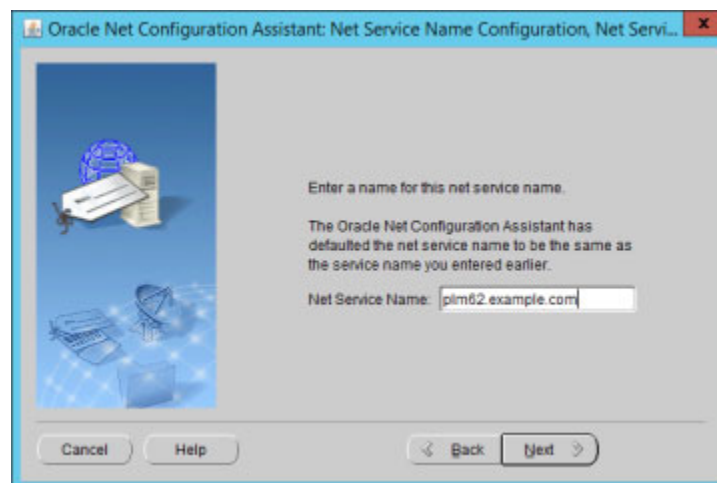
6. Select the TCP protocol and click Next.



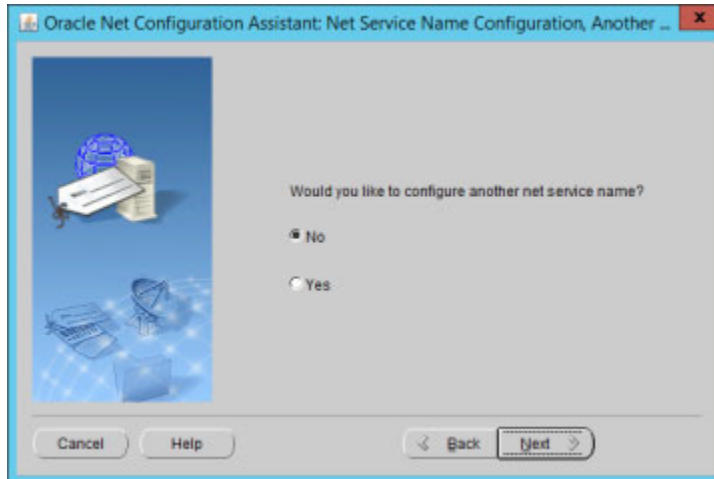
7. Enter the fully qualified host name - where the Oracle database is located and click Next.



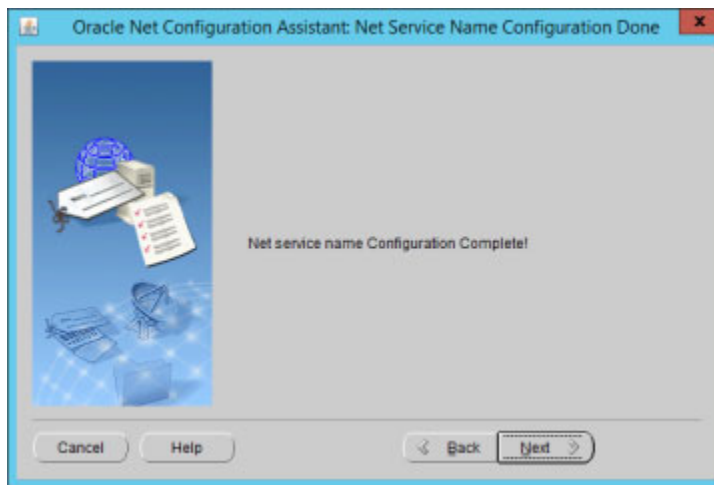
8. Select No, do not test and click Next.



9. Enter the Net Service Name and click Next.
This is the same name as entered above.



10. Select No and click Next.



The Net service name configuration is completed.

11. Click Next.
12. Click Finish to quit.

Create the Database

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 e6.2.1.0 database installation.

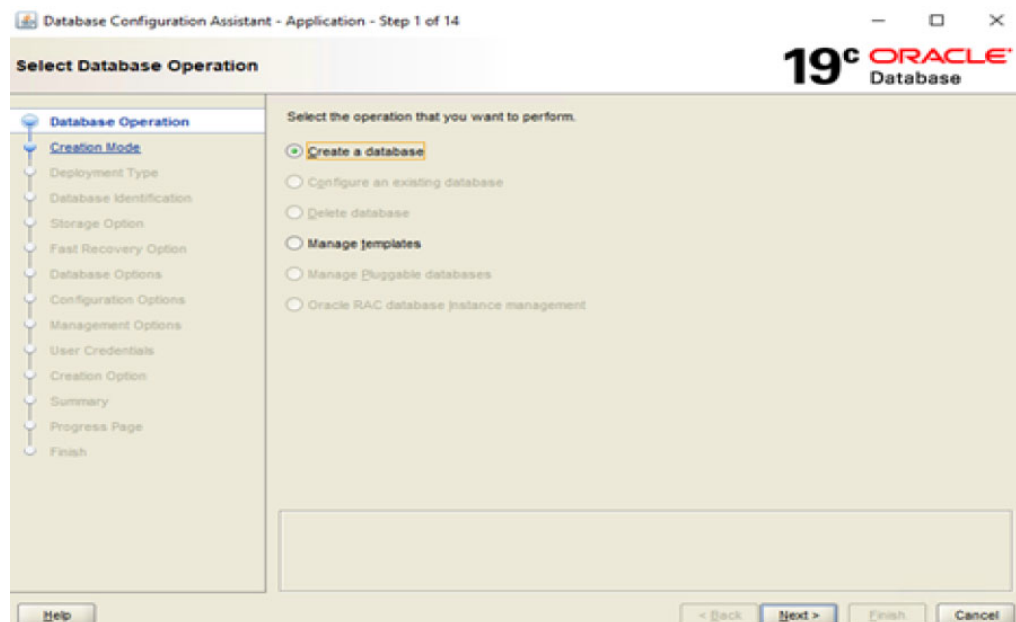
For additional information on significant database parameters and settings of each template, refer to the Hardware Sizing Guide for Agile e6.2.1.0.

Note: In all the examples given in this chapter, the name of the Oracle Home for Oracle Database installation is OraDb19c_home1. You may use a different name in your installation.

1. Refer to the downloaded media pack - Oracle Agile Engineering Data Management Application (Release e6.2.1.0) RUP2 or later.
 - ? 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.

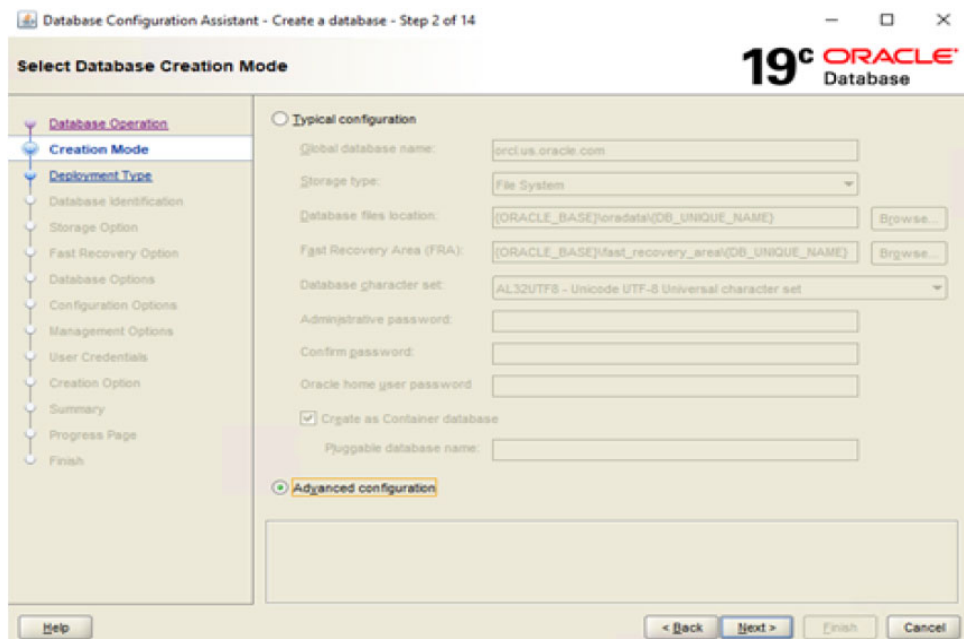
Search for application Database Configuration Assistant and start it.
 - ? UNIX
 1. All the templates are in the addon\db\unix\templates directory.
 2. Copy the required DBCA template file (e.g. plm_prod_medium.dbt) to the \$ORACLE_HOME/assistants/dbca/templates directory.
 3. Start the Oracle Database Configuration Assistant

\$ORACLE_HOME/bin/dbca
2. Select Create a Database and click Next.



The Database Configuration Assistant - Creation Mode screen is opened.

3. Select Advanced Mode and click Next.

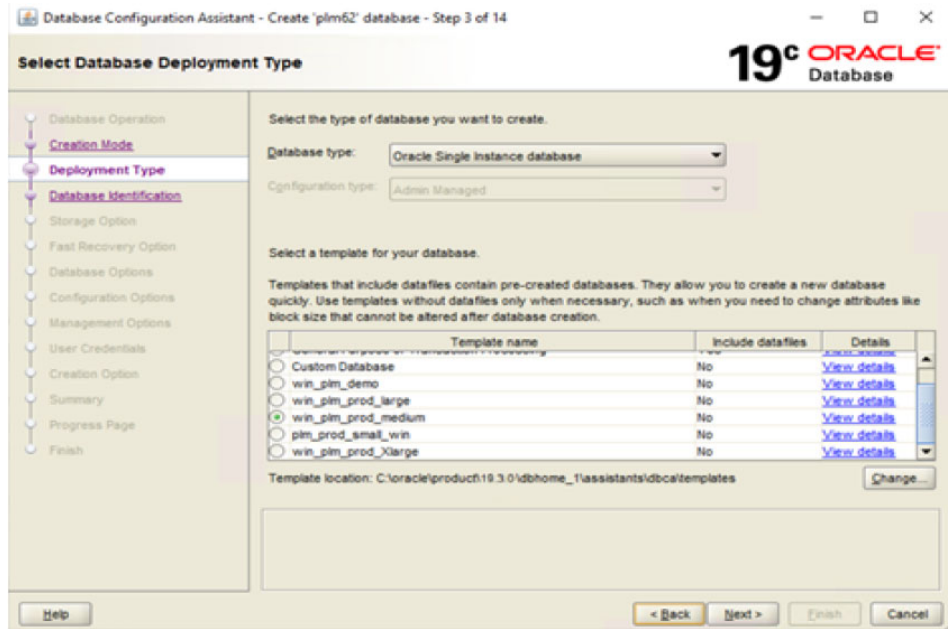


The Database Configuration Assistant - Database Deployment Type screen is opened.

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

The template that you have chosen and copied is available in this list.

Minimum hardware requirements should be met depending on which configuration you choose.



The Database Configuration Assistant - Database Identification screen is opened.

5. Enter the Global database name and database SID. and click Next

The default SID is plm62. It is recommended to set the global database name to SID.<domain name>; for example, plm62.example.com. But it can also be left with the same name as the database SID.

Note: Do not leave this field blank.

6. Select "Use template file for database storage attributes" and click "File location variables".

7. Enter the value for the variables and click OK.

File location variables

Variables are used to specify parameterized file locations for datafiles, control files, redo logs, and any other files used by database.

For example, a control file may be specified as {ORACLE_BASE}/oradata/{DB_NAME}/control01.ctl

Name	Value
DB_UNIQUE_NAME	plm62
ORACLE_BASE	C:\oracle
ORADATA3	C:\oradata
ORADATA2	C:\oradata
DB_NAME	plm62
ORADATA1	C:\oradata
ORADATA5	C:\oradata
SID	plm62
ORADATA4	C:\oradata
REDO1	C:\oradata
ORACLE_BASE_HOME	C:\oracle\product\19.3.0\dbhome_1
REDO2	C:\oradata
PDB_NAME	
ORAARCH	C:\oradata
ORACLE_HOME	C:\oracle\product\19.3.0\dbhome_1

Help OK Cancel

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 plm62 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.

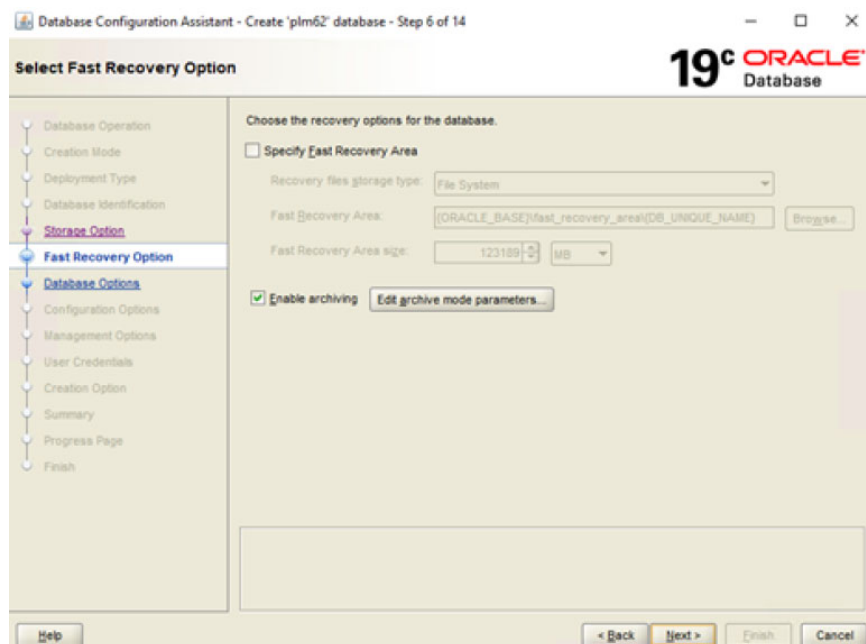
Variable	Description
ORADATA1	Directory for data files of tablespaces EDB, EDB_LOB, EDB_TMPIDX
ORADATA2	Directory for data files of tablespaces EDB_IDX, EDB_TMP
ORADATA3	Directory for data files of temporary tablespace TEMP
ORADATA4	Directory for data files of undo tablespace
ORADATA5	Directory for data 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	Contents
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
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
3	Disk1: ORADATA1, ORADATA5 Disk2: ORADATA2, ORADATA4, REDO1 Disk3: ORADATA3, ORAARCH, REDO2
4	Disk1: ORADATA1, REDO1 Disk2: ORADATA2, REDO2 Disk3: ORADATA3, ORAARCH Disk4: ORADATA4, ORADATA5
5	Disk1: ORADATA1, REDO1 Disk2: ORADATA2, ORAARCH Disk3: ORADATA3, ORADATA5 Disk4: ORADATA4 Disk5: REDO2
6	Disk1: ORADATA1 Disk2: ORADATA2, ORAARCH Disk3: ORADATA3 Disk4: ORADATA4 Disk5: ORADATA5, REDO1 Disk6: REDO2
7	Disk1: ORADATA1 Disk2: ORADATA2 Disk3: ORADATA3 Disk4: ORADATA4 Disk5: ORADATA5, ORAARCH Disk6: REDO1 Disk7: REDO2
8	Disk1: ORADATA1 Disk2: ORADATA2 Disk3: ORADATA3 Disk4: ORADATA4 Disk5: ORADATA5 Disk6: ORAARCH Disk7: REDO1 Disk8: REDO2

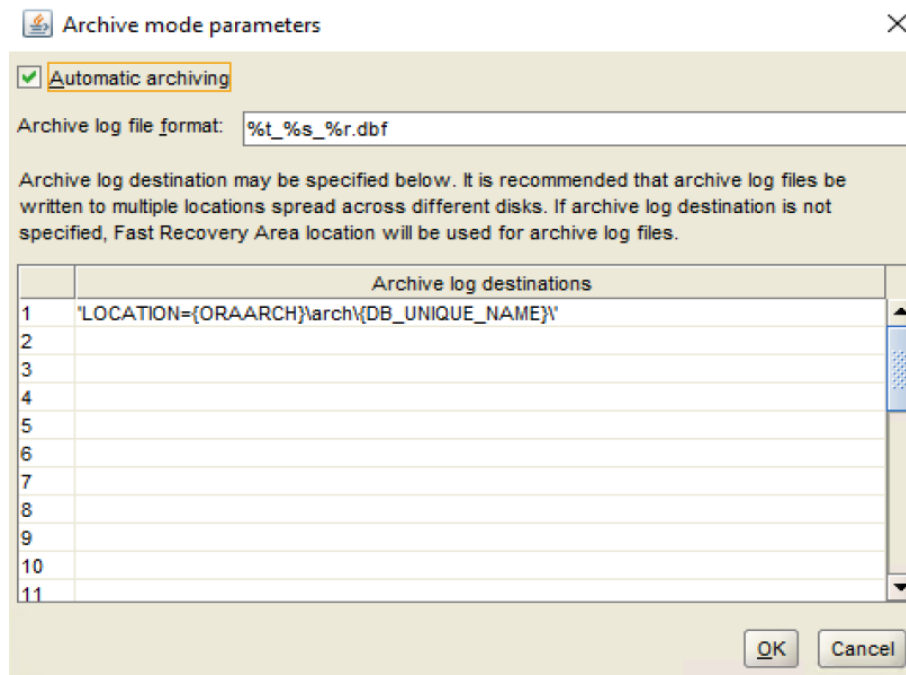
8. Deselect the option Specify Flash Recovery Area.

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

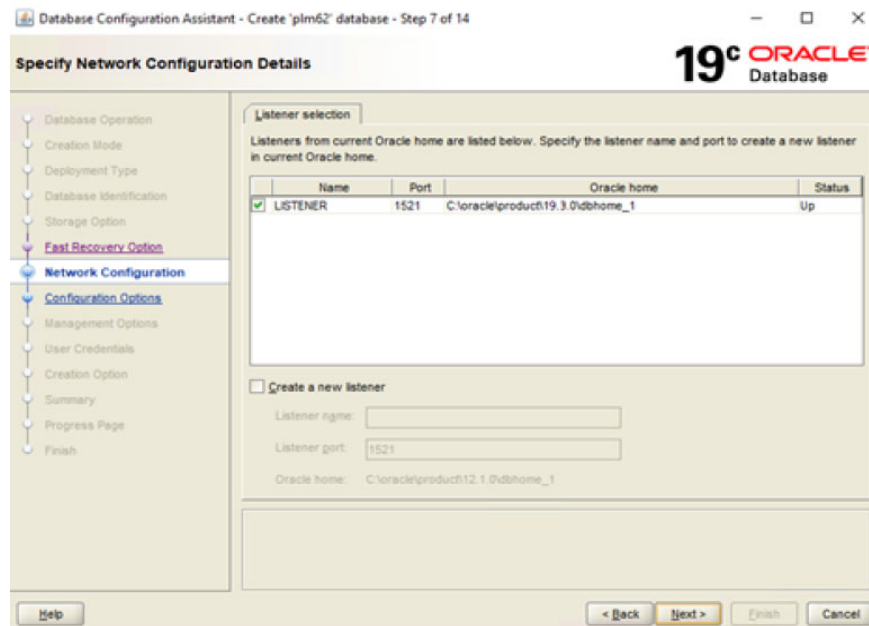


Note: For a productive database it is highly recommended to archive the database. To specify the destination of the archive directory, click the button Edit Archive Mode Parameters button (predefined by the variable ORAARCH).

9. Enable archive mode parameters Option and change any settings. Click OK



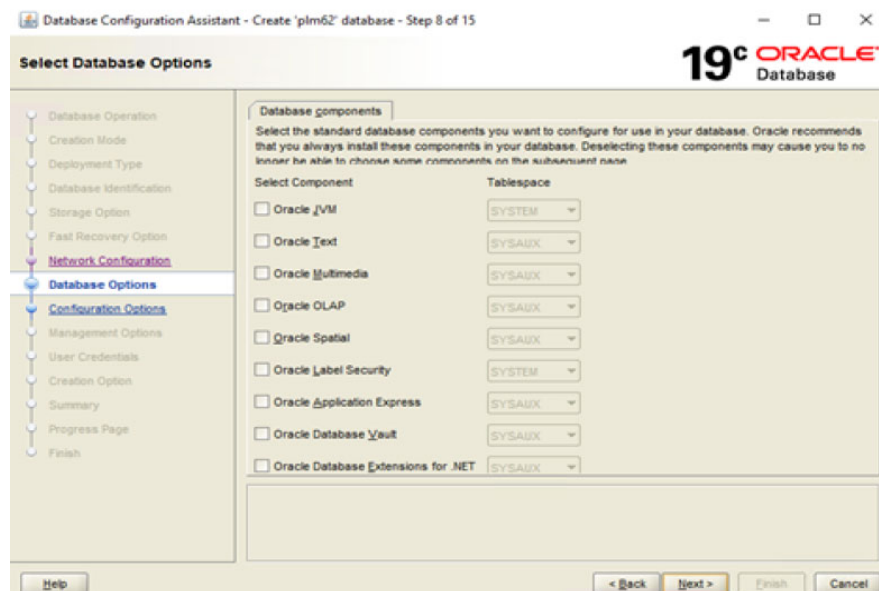
The "Fast Recovery Option" page is reopened and you can see the listener you created and configured before in the list with the status up.



10. Select the listener and click Next.

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

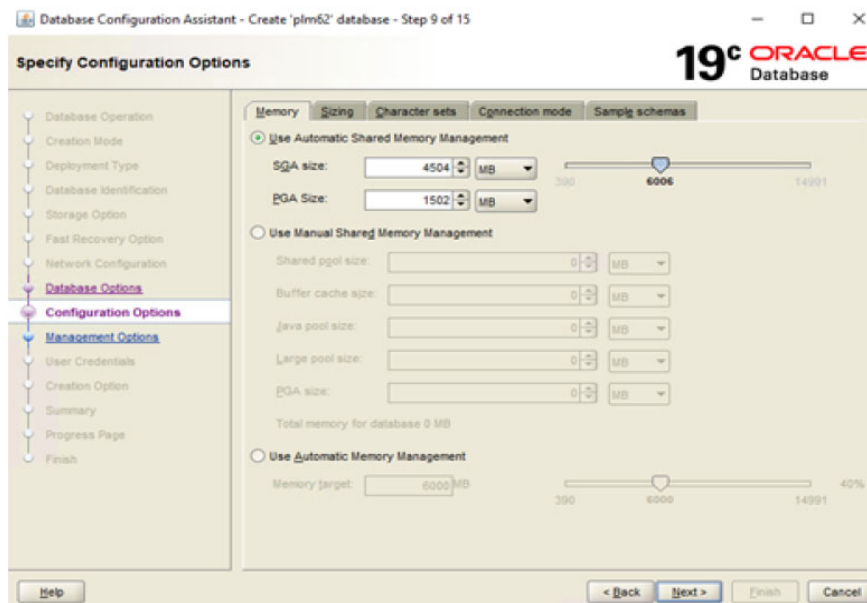
We do not recommend changing the settings provided by the template.



11. Review and if experienced adapt the database parameters and 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 e6.2.0.0.

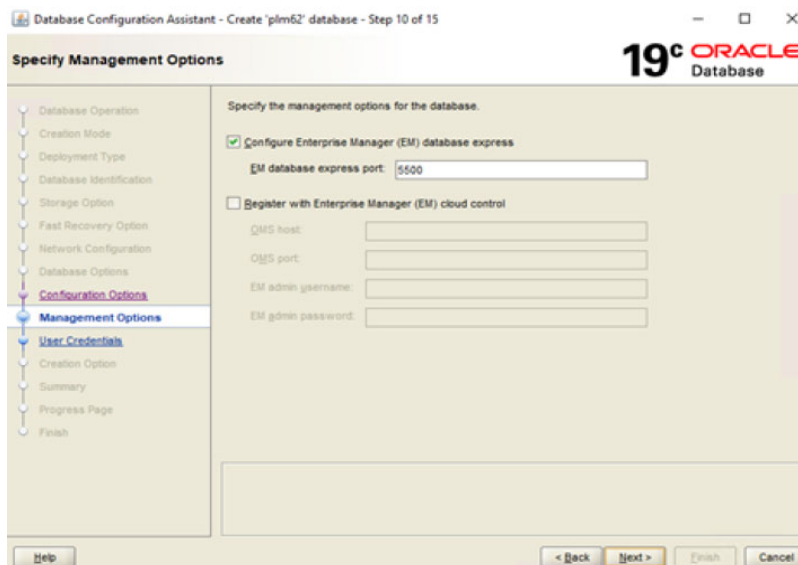


12. Select the option Choose Configure Enterprise Manager (EM) database express and choose the port where you will deploy the EM dashboard and click Next.

EM Database Express Port is the https port to open express console:

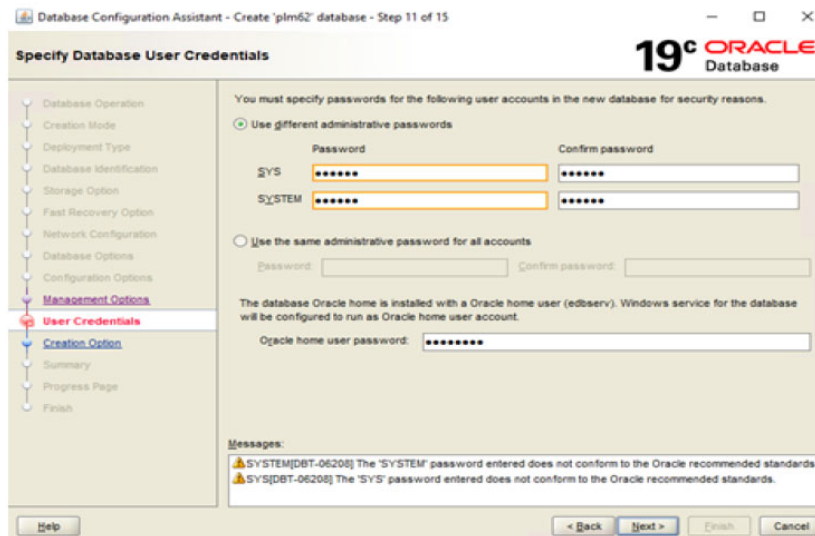
`https://<hostname>:<port>/em/**`

The Database Configuration Assistant - Specify User Credentials is opened.

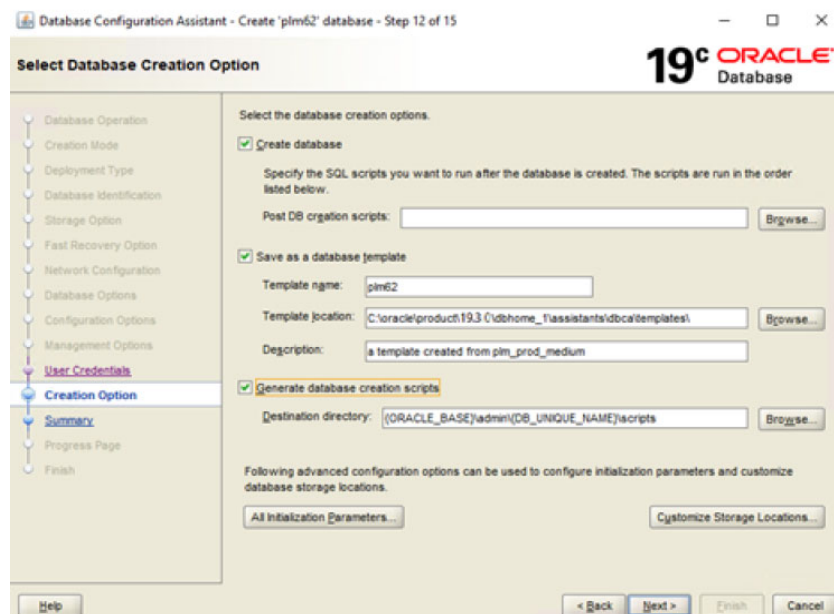


13. Set your administrative user passwords.

- 7 It is highly recommended to use different passwords for these accounts.
- 7 We recommended each password to meet the Oracle recommended standards. A password should have minimum of 8 characters in length. In addition, the password must contain at least one upper case character, one lower case character and one digit.
- 7 If your oracle home user is not the windows built-in account, please give the password of oracle home user for the windows service configuration.

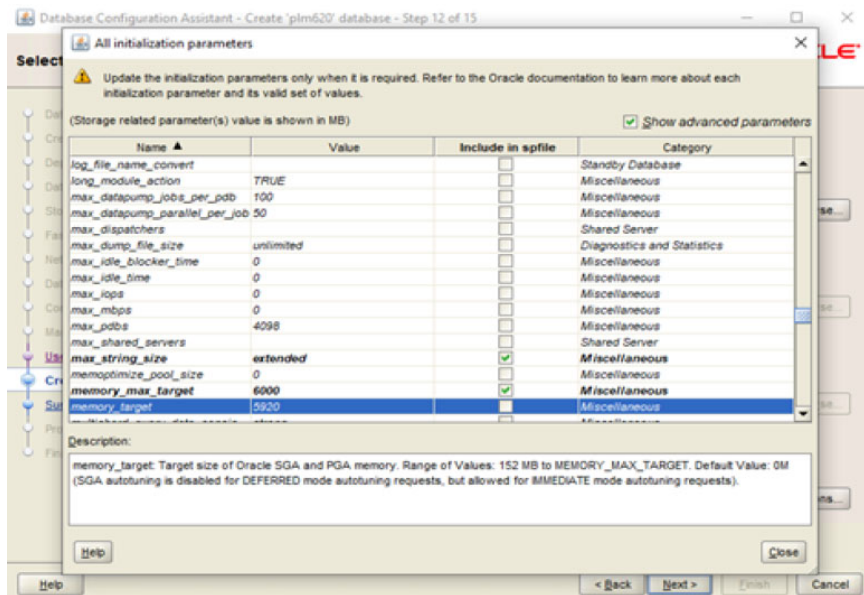


14. Select "Save as a database template" if you want to save the template currently configured. This will make future installation faster and click on All Initialization Parameters button to review all server parameters.



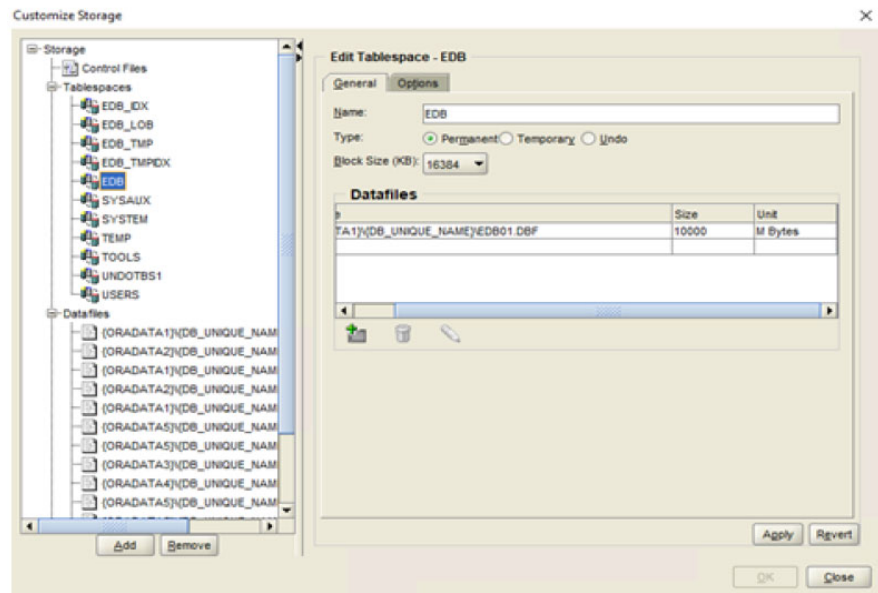
The All Initialization Parameters screen is opened.

15. Click on Show Advanced Parameters and review parameters listed. Select close.



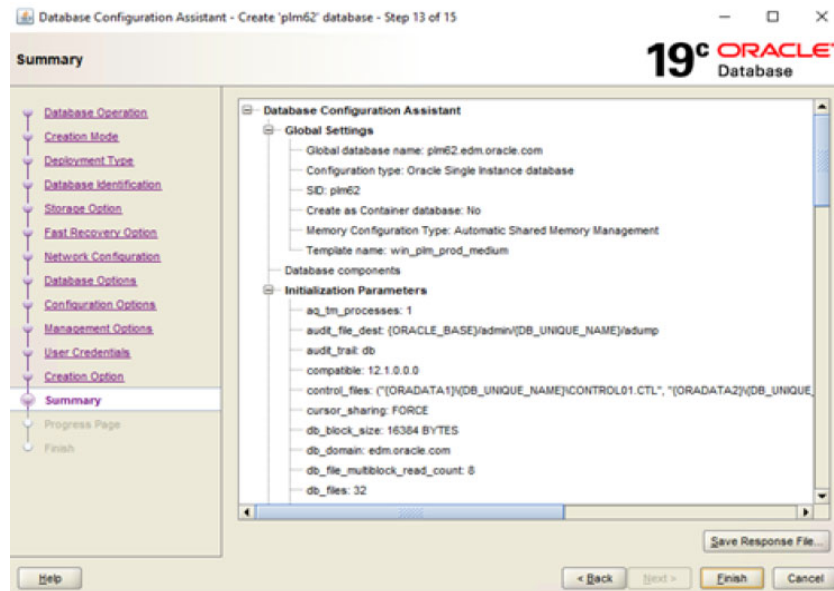
Note: To be sure the value of memory_max_target has to be greater than the value of memory_target.

16. Click on Customize Storage Locations to review the storage parameters for database creation and click Close.



The Database Configuration Assistant - Summary screen is opened.

17. Proceed to the "Summary" window for the final review and Click on "Finish" to start the database creation.



Wait for the full database setup to finish. Once finished, a summary will pop-up. At this point, installation is now successful and you can now close the DBCA

18. Test the database connection with the following command:

```
sqlplus system@plm62/<SYSTEM password>
```

Configuring tnsnames.ora and sqlnet.ora

1. Start the Oracle Net Manager.

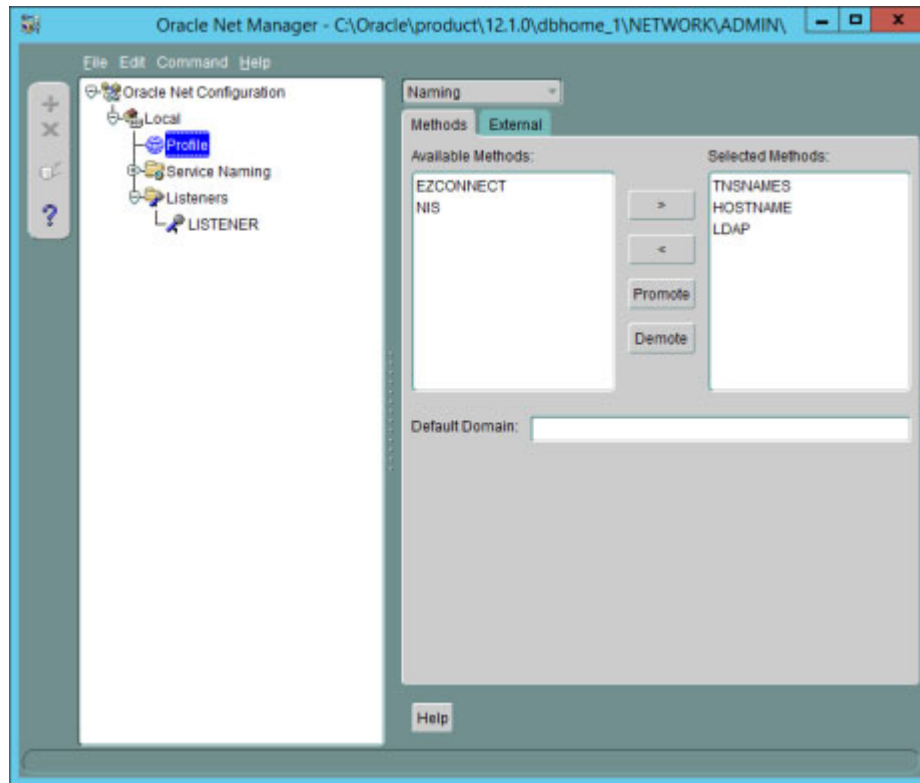
Windows:

Click Start > All Programs > Oracle - OraClient12Home1_32bit > 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.

The sqlnet.ora and tnsnames.ora under \$ORACLE_HOME/network/admin/ will be created or updated.

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 e6.2.1.0) 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 e6.2.1.0 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;
```

Import the Database Dump

Import the Agile e6.2.1.0 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.AL32UTF8.

Check the registry for the value of the variable NLS_LANG - HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\KEY_<12c installation>

? UNIX

Make sure that the correct value is set for the environment variable NLS_LANG (value from the file csh_ORA12.1.0 - AMERICAN_AMERICA.WE8MSWIN1252).

1. Start the import.

```
imp username/pass@plm61 file=plm62.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

Note: You can import only your own e6 dmp files which were created in a database in which the initialization parameter max_string_size =standard. Be aware that the e6 database has set this parameter to extended. Please use data pump utilities (expdp, impdp) instead. For more details, see Oracle 19c Database documentation.

All standard dmp files delivered on Oracle edelivery for e6.2.1.0 can be imported with imp/exp utility.

Compile All Invalid Objects in Schema PLM

After importing the Agile e6.2.1.0 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 19c, 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

(https://docs.oracle.com/en/database/oracle/oracle-database/19/refrn/OPTIMIZER_MODE.html#GUID-DE448A8A-992F-4BAB-9302-A020039641E5).

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

Installing Oracle WebLogic Server

Note: This chapter describes the manual installation of the Oracle WebLogic 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.

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 8 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 32-bit mode.

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

Generic Prerequisites

Setting the Java_Home environment and check Java Version

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 64-bit 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\jdk1.8.0_<update_number>
```

? UNIX

```
setenv JAVA_HOME /usr/local/java/jdk1.8.0_<update_number>
```

3. Check the Java version with:

? Windows

```
%JAVA_HOME%\bin\java -d64 -version
```

? UNIX

```
$JAVA_HOME/bin/java -d64 -version
```

? If you try to start a 32-bit Java, or start a 64-bit Java on a 32-bit operating system, this command will fail.

? In this case, run the installer as follows:

– Windows

```
%JAVA_HOME%\bin\java -d64 -jar fmw_12.2.1.3.0_wls.jar
```

– UNIX

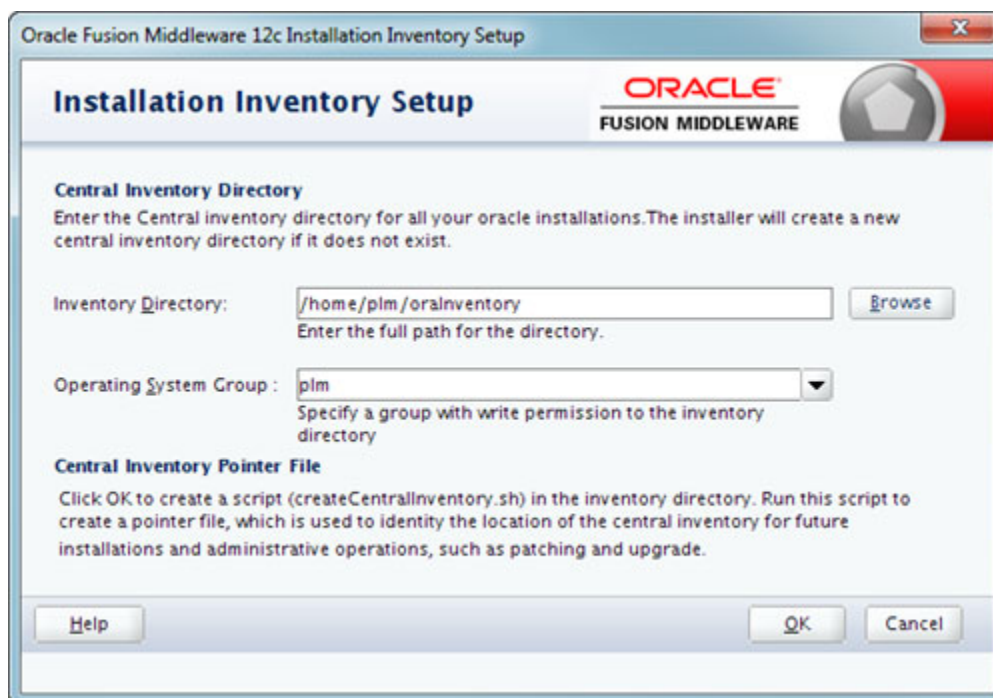
```
$JAVA_HOME/bin/java -d64 -jar fmw_12.2.1.3.0_wls.jar
```

Installation

1. Run the Oracle WebLogic installer file.

On UNIX the Installation Inventory Setup screen may open.

The following screen will only open if the current user has no write access to the Inventory Directory or if the Inventory Directory does not exist yet

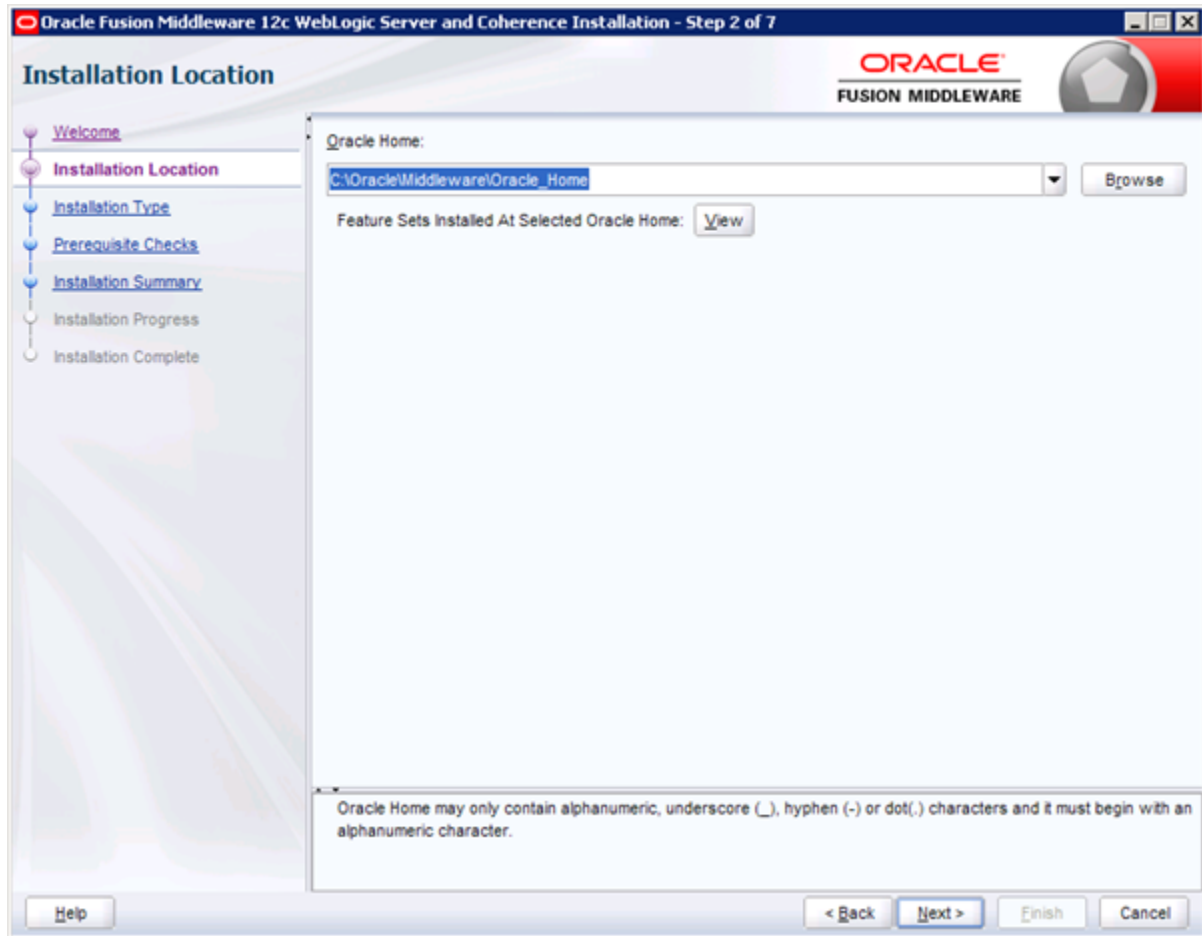


Note: The following screens is opened for all Operating Systems

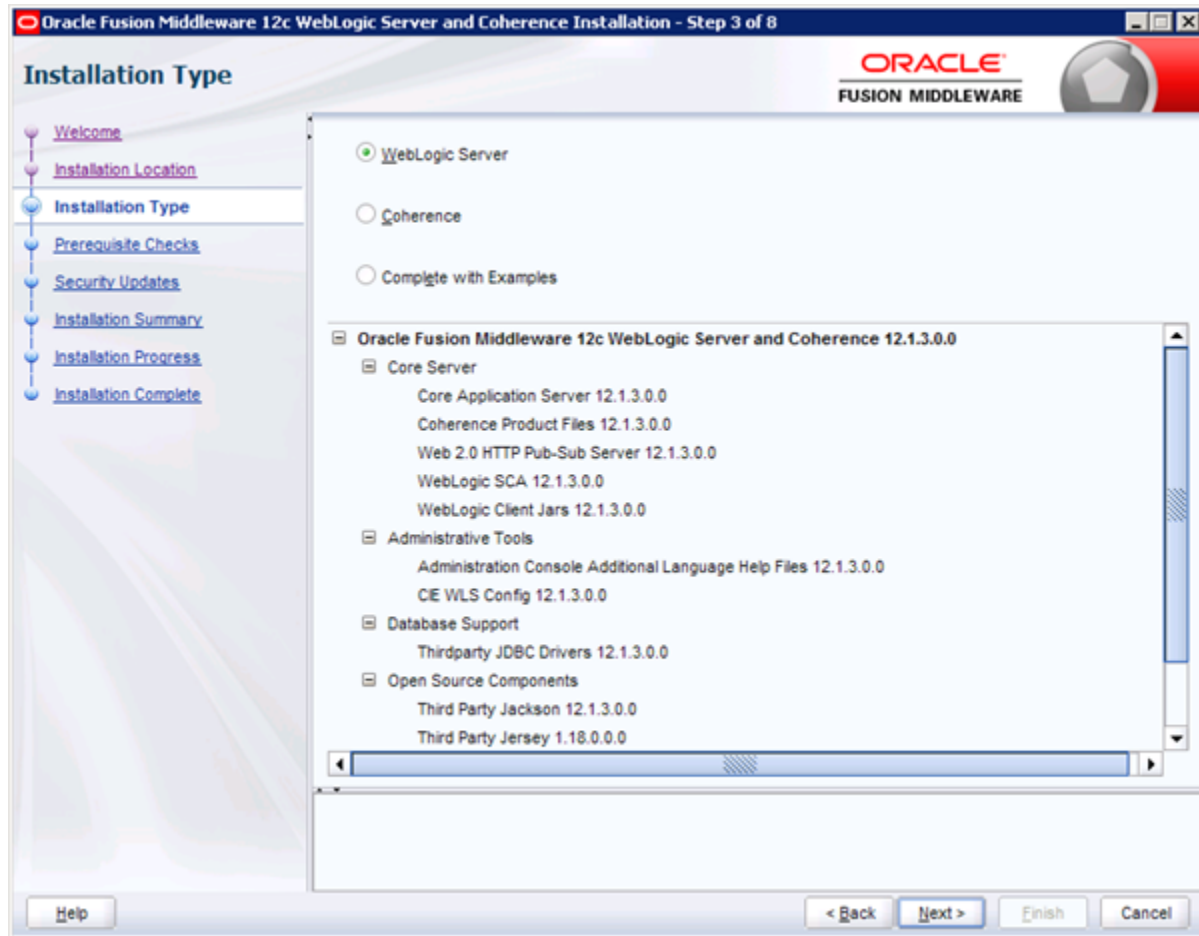


2. Click Next.

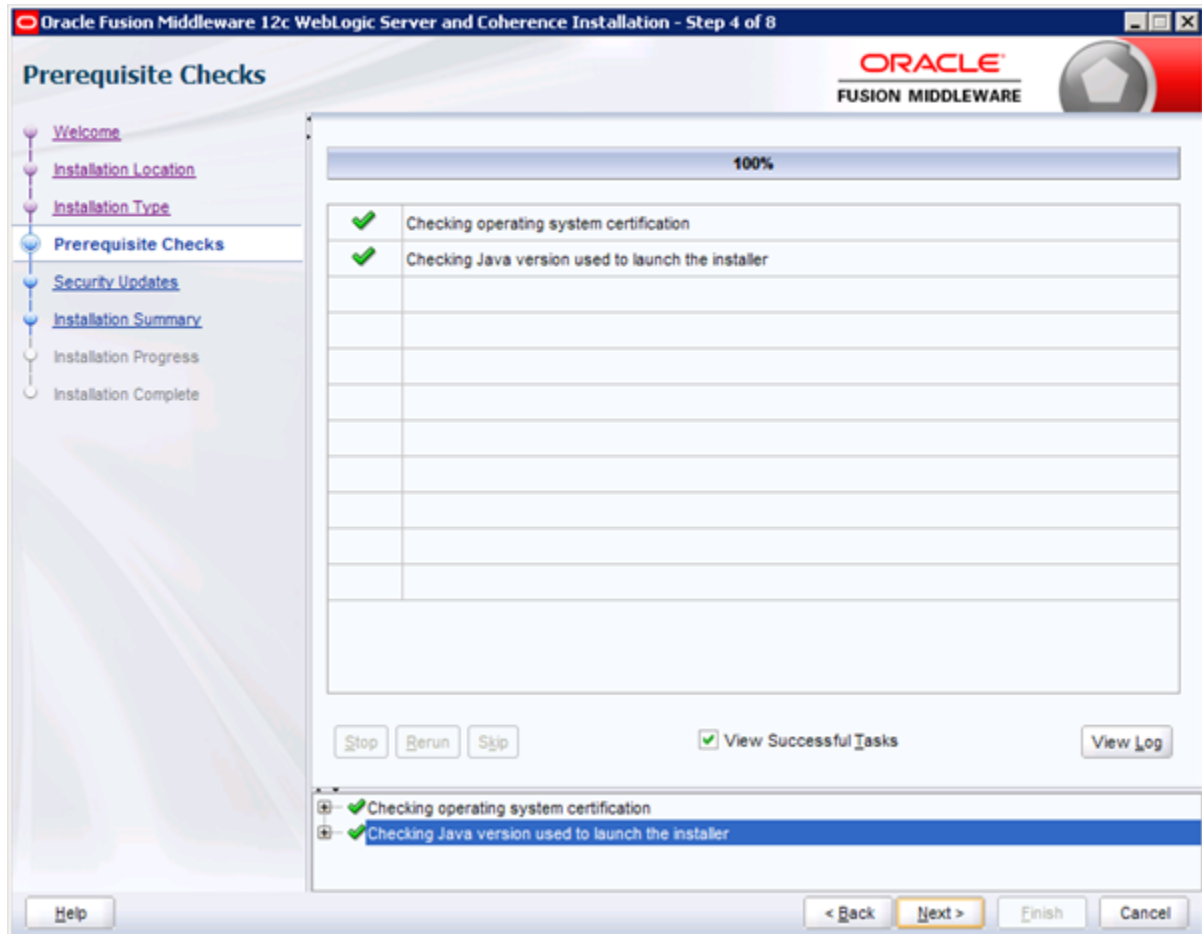
The Installation Location screen is opened.



3. Specify the new Oracle Home Directory path and click Next.
The Installation Type screen is opened.



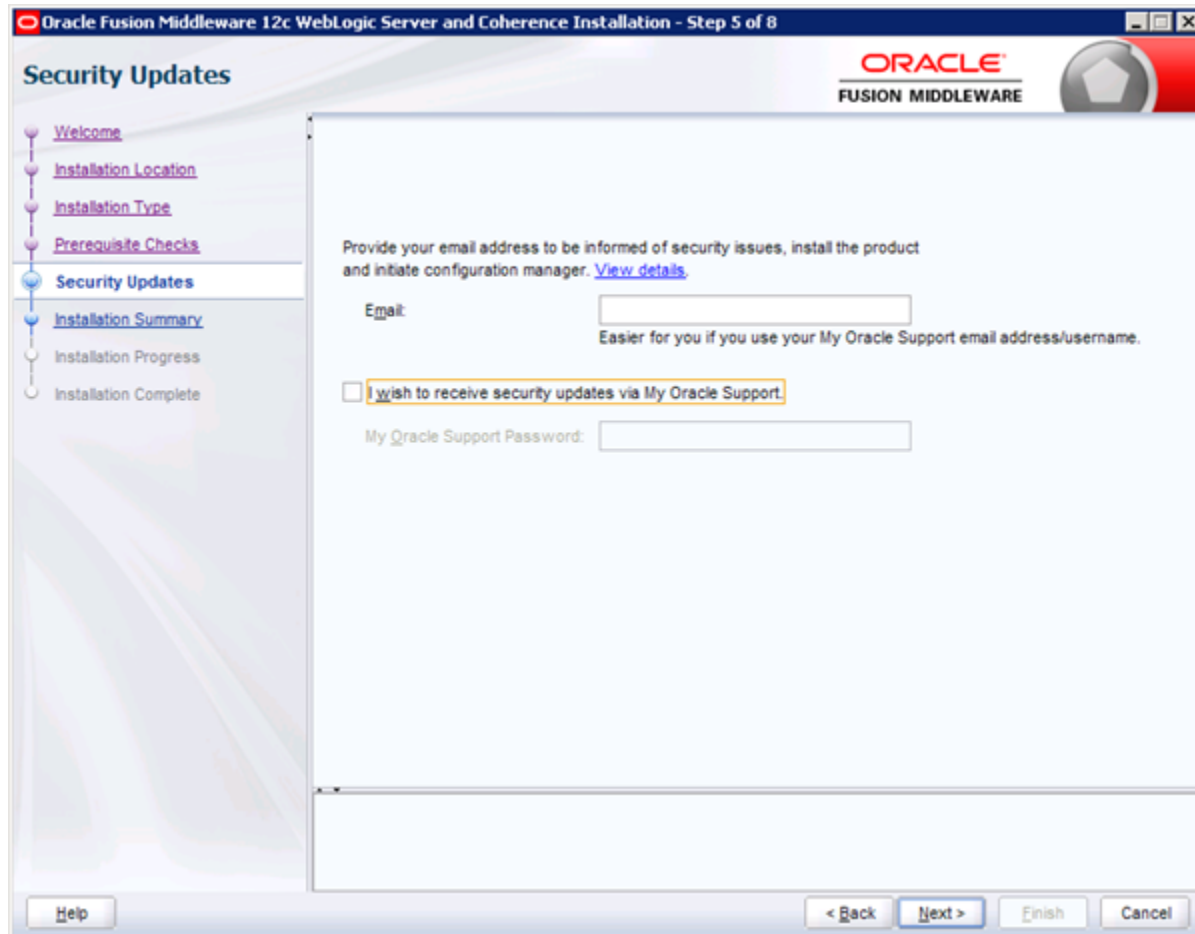
4. Select the WebLogic Server Installation and click Next.
The Prerequisite Checks screen is opened.



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

6. Click Next.

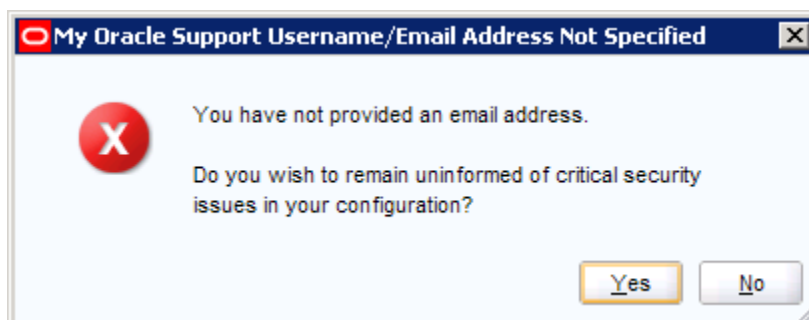
The Specify Security Updates screen appears.



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.

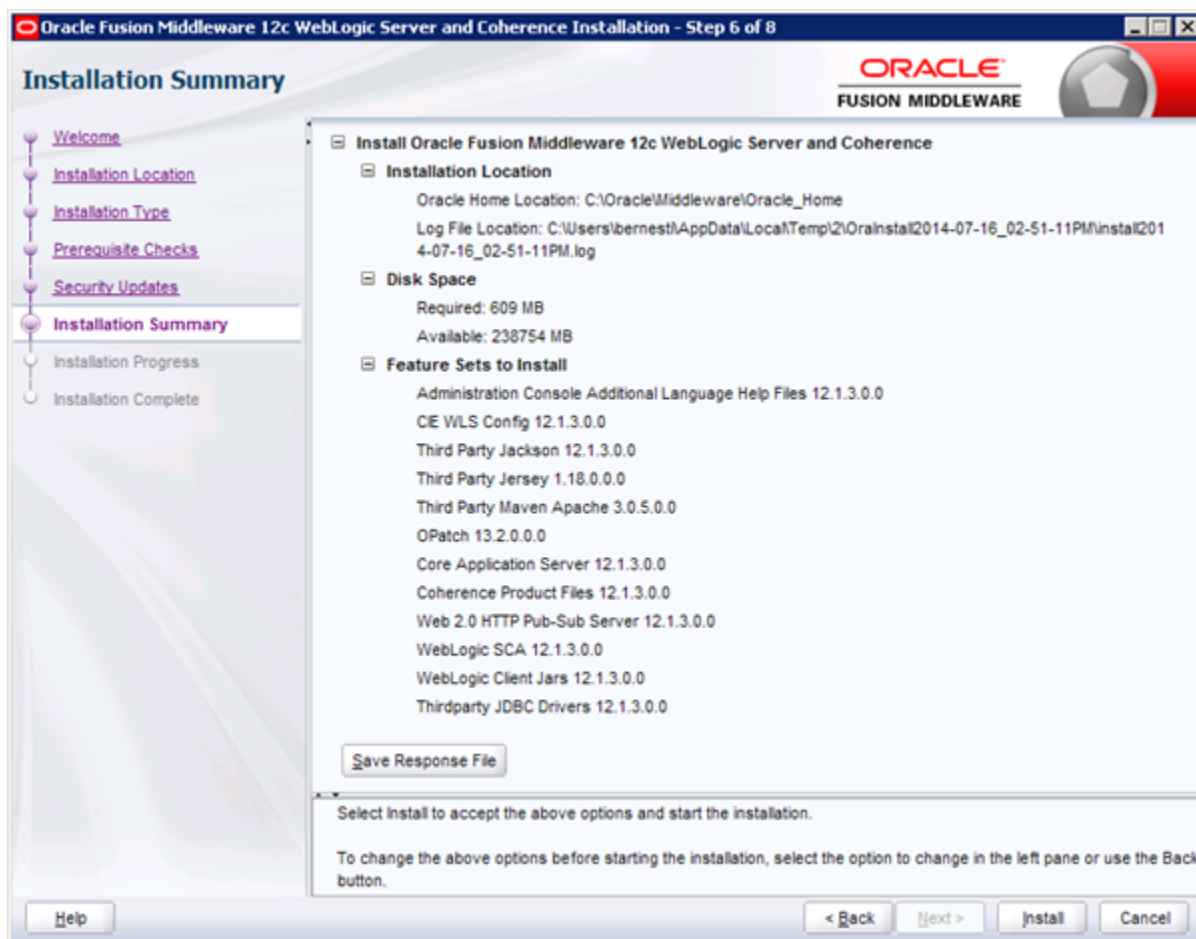
7. If you do not wish to register for security updates, or if you do not have a My Oracle Support account, then leave all the fields on this screen empty and click Next.

The following warning screen can be shown.

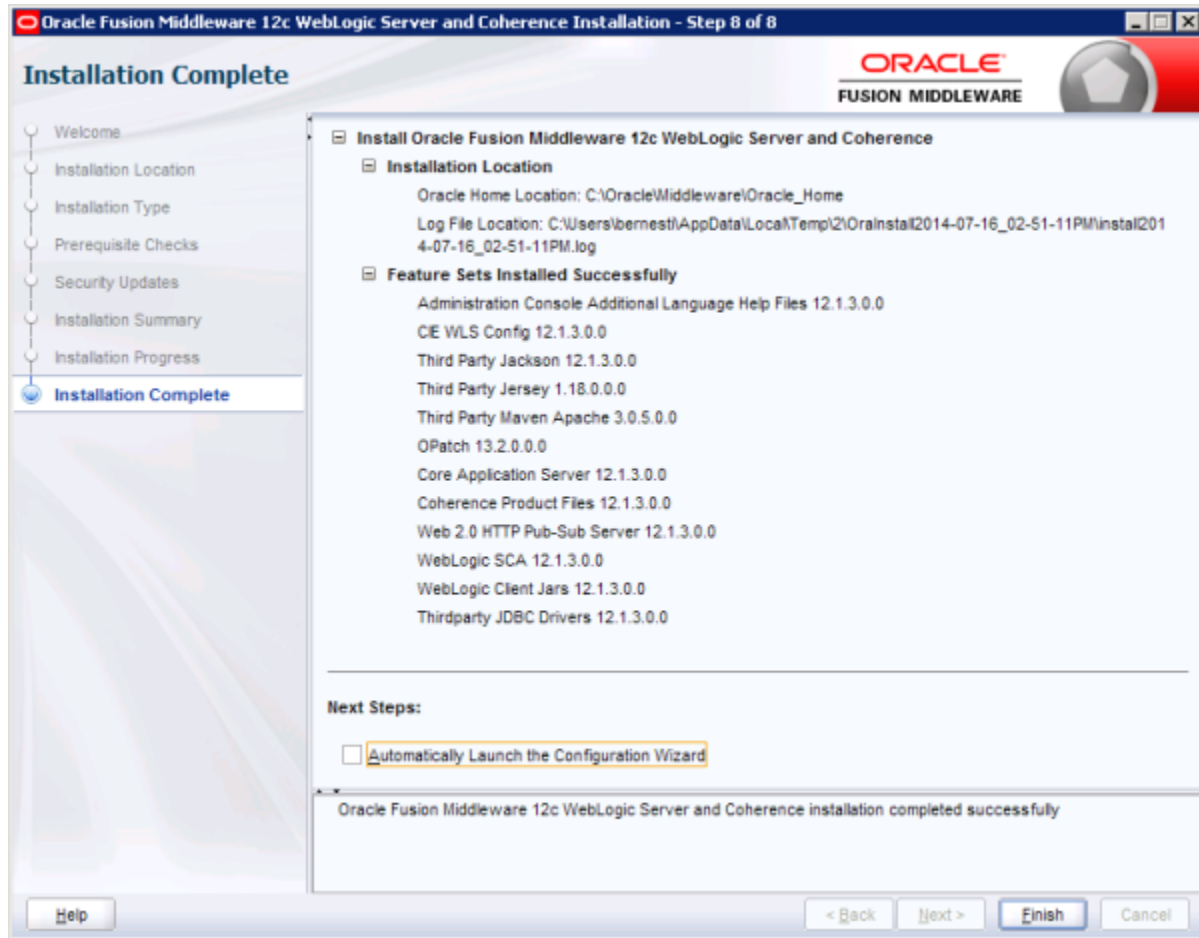


8. To confirm click Yes.

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.

Install Weblogic Patch for Generic Platform

Note: The Weblogic server 12.2.1.3.0 requires the following patches to be installed

- ⤵ Patch 28186730: OPATCH 13.9.4.X UPGRADE FOR FMW/WLS 12.2.1.3
 - ⤵ Patch 28298734: WLS PATCH SET UPDATE 12.2.1.3.181016
-

Further information and instructions about these Weblogic patches can be found in the respective Readme file from the Oracle Patches and Updates Support Website

- ⤵ <https://updates.oracle.com/Orion/Services/download?type=readme&aru=23189839>
- ⤵ <https://updates.oracle.com/Orion/Services/download?type=readme&aru=22379215>

Node Manager Configuration

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

Agile e6.2.1.0 is using one Node Manager for every host.

Windows

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

1. Set JAVA_HOME and WL_HOME

```
set JAVA_HOME=C:\Program Files\Java\jdk1.8.0_<update_number>
set WL_HOME=<ORACLE_HOME_FOR_WEBLOGIC>\wlserver
```
2. To create the Windows Service, execute the following command:

```
<ORACLE_HOME_FOR_WEBLOGIC>\wlserver\server\bin\installNodeMgrSvc.cmd
```
3. After Windows service created, please go to Services site, start node manager service.

UNIX

To start the Node Manager, execute the following commands:

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

All Operating Systems

Note: 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 chapter Adaptation to the Node Manager Configuration.

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

Note: Only when starting the Node Manager with a valid certificate the file nodemanager.properties will be created.

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
```

Caution: 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 new bourne shell. This shell can be started with the following command:

```
/bin/sh
```

This new /bin/sh shell has to be used to execute the following two Java commands also.

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: If you use the Java 8 161 or higher, add the additional parameter -noskid.

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

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
```

Adaptation 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. Open the following file with an editor:

```
<ORACLE_HOME_FOR_WEBLOGIC>/oracle_
common/common/nodemanager/nodemanager.properties
```

2. Modify the following properties:

```
SecureListener=false
ListenAddress=127.0.0.1
CrashRecoveryEnabled=true
```

3. After the changes, restart the Node Manager.

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:

- ? 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
```

Note: On HP-UX the FMS Java Daemon must run with 32bit JRE. To switch from 64bit to 32bit the following two files must be adapted after the installation.

? `${ep_root}/axalant/scripts/fms_jade`

The following line must be changed:

```
EP_MACH_64=`env FORCE_64BIT_EP_MACH=true ${EP_
ROOT}/axalant/scripts/ep_get_mach`
```

to

```
EP_MACH_64=`${EP_ROOT}/axalant/scripts/ep_get_mach`
```

? `${ep_root}/axalant/ini/fms_jade_wrapper.conf`

Comment out the following line:

```
wrapper.java.additional.1=-d64
```

EDM Server

1. Start the Agile e6 Installer

? Windows

1. Open a command shell.

2. Change to the installer directory:

```
set JAVA_HOME=C:\Program Files\Java\jdk1.8.0_<update_number>
cd <installation-media-path>\installer
```

3. Enter the following command:

```
gui.cmd
```

? UNIX

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

1. Open a command shell.

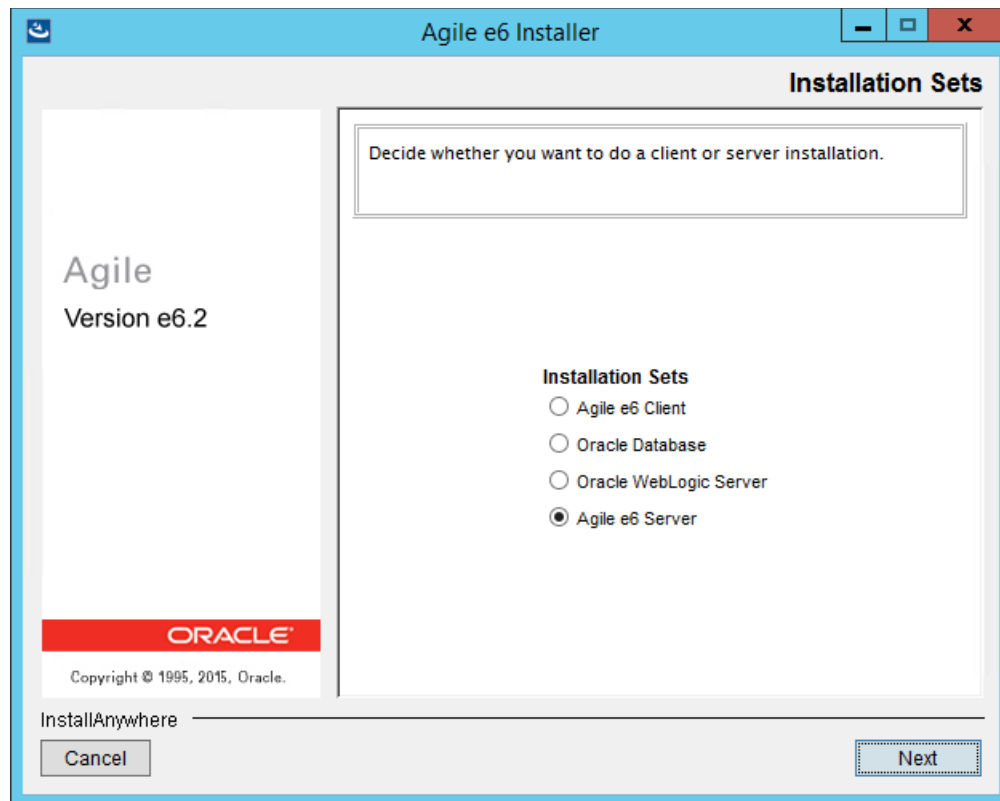
2. Change to the installer directory:

```
setenv JAVA_HOME /usr/local/java/jdk1.8.0_<update_number>
cd <installation-media-path>/installer
```

3. Enter the following command:

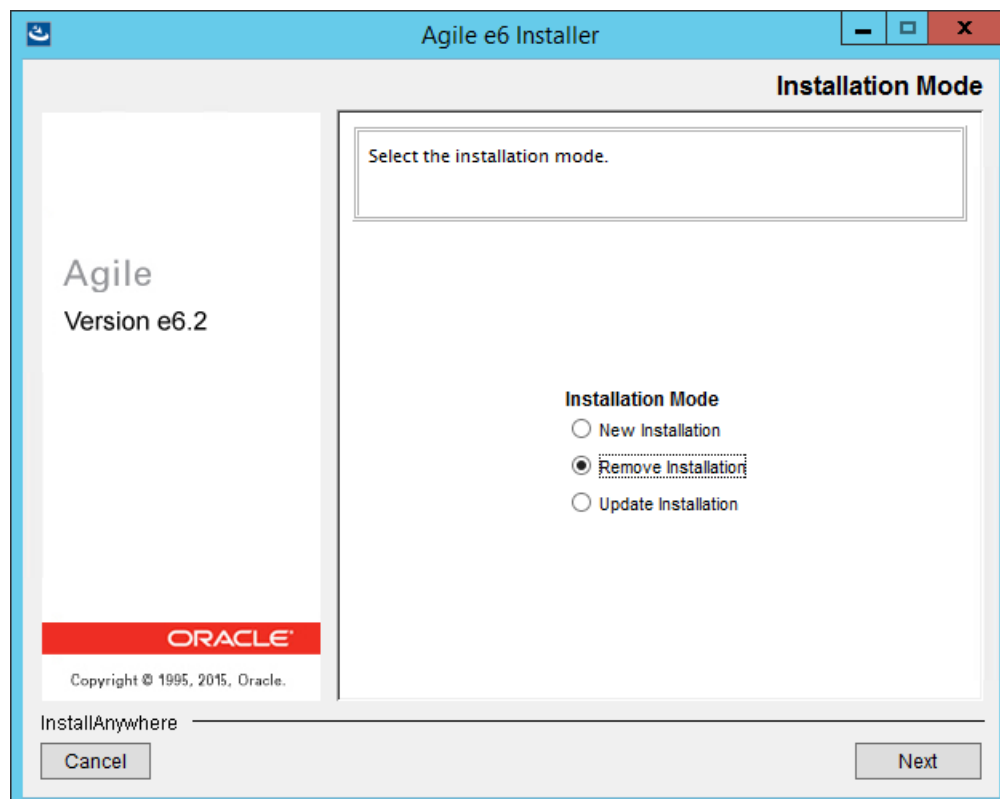
```
./gui.csh
```

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 directory will be renamed. It can be deleted if it is not used.

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 %ALLUSERSPROFILE%\agile\installer\6.2.1\admin\apache-tomcat\bin
net stop "AgilePLM_AdminClient"
service.bat remove AgilePLM_AdminClient
```

```
delete the directory "%ALLUSERSPROFILE%\agile\installer\6.2.1"
```

? UNIX

```
su - <your e6l installation user>
cd .agile/installer/6.2.1/admin/apache-tomcat/bin
./shutdown
cd $HOME
rm -r .agile/installer/6.2.1
```

If the Agile e6.2.1.0 installation is removed from the server, the directory can be deleted. All components of the installation are removed.

Oracle Database

Note: It is not possible to uninstall Oracle 12c database with Oracle Universal Installer shipped with 11gR1, or an earlier version. Oracle 12c comes with a de-installation utility.

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, use the provided de-installation tool. Make sure the de-installation was done correctly before trying to reinstall Oracle.

Windows

1. Open an Administrative command shell but to not change to the installer directory.
2. To uninstall Oracle 12c, start the following script:

```
%ORACLE_HOME%\deinstall\deinstall.bat
```
3. Specify all single instance listeners that are to be de-configured, as well as database names that are configured in this Oracle Home.
4. Confirm the de-installation with 'y'.
The %ORACLE_HOME% directory will be deleted after de-installation.

UNIX

1. Open a shell as the User which installed the Database.
2. To uninstall Oracle 12c, start the following script:

```
${ORACLE_HOME}/deinstall/deinstall
```
3. Specify all single instance listeners that are to be de-configured, as well as database names that are configured in this Oracle Home.
4. Confirm the de-installation with 'y'.
The \${ORACLE_HOME} directory will be deleted after de-installation.

Oracle WebLogic Server

To deinstall the Oracle WebLogic Server, refer to "Oracle Fusion Middleware Documentation at <https://docs.oracle.com/en/middleware/fusion-middleware/index.html>