



Installing and Configuring Oracle 12c Release 2 on Windows for Use with the ETM[®] System

For Use with the ETM[®] System v7.1.1 Build 47
or v7.1.2 Build 74



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Oracle 12c Release 2: Installation and Configuration for the ETM[®] Database

Introduction

Two versions of the ETM[®] System have been tested to support Oracle 12c Release 2 (12.2.0.1) in specific configurations using drivers from previous Oracle versions. Due to extensive changes to the driver for 12.2.0.1, it is not yet supported with the ETM System. Support for that driver is planned for a subsequent ETM System update.

Only the following configurations are supported with Oracle 12.2.0.1:

- **ETM[®] System v7.1.2 Build 74** using one of the following drivers:
 - **ojdbc6** from Oracle 11.2.0.4
 - **ojdbc7** from Oracle 12.1.0.2
- **ETM[®] System v7.1.1 Build 47** using the following driver:
 - **ojdbc6** from Oracle 11.2.0.4

This document explains how to install the Oracle 12c Release 2 (12.2.0.1) software on Windows and then run the Perl scripts to prepare the database for use with the ETM[®] System in the supported configurations listed above.

Oracle 12.2.0.1 Enterprise Edition, Standard Edition, and Standard Edition One are supported. XE is not supported. This document describes Enterprise Edition installation. Minor variations may occur when installing other editions.

Note: If you are upgrading an existing ETM System Database installation from 11g to 12c, refer to “[ETMD0651 – Updating the ETM[®] Database When Upgrading from Oracle 11g to 12c Release 2 on Windows](#)” instead.

NOTES::

- Ensure that no Windows Scheduler jobs run while you are running the Oracle Universal Installer or you may encounter installation problems, particularly if temporary files used in the installation are cleaned up before it completes.

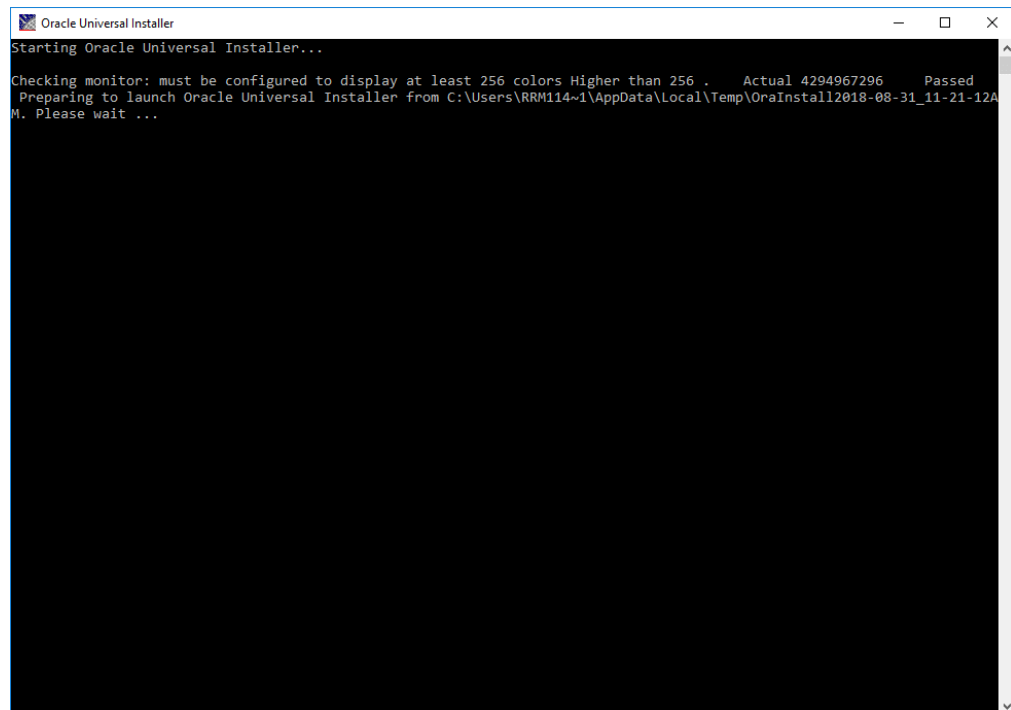
- Do not install Oracle Database 12c software into an existing Oracle home.

Installation and Configuration

Installing Oracle 12c Enterprise Edition

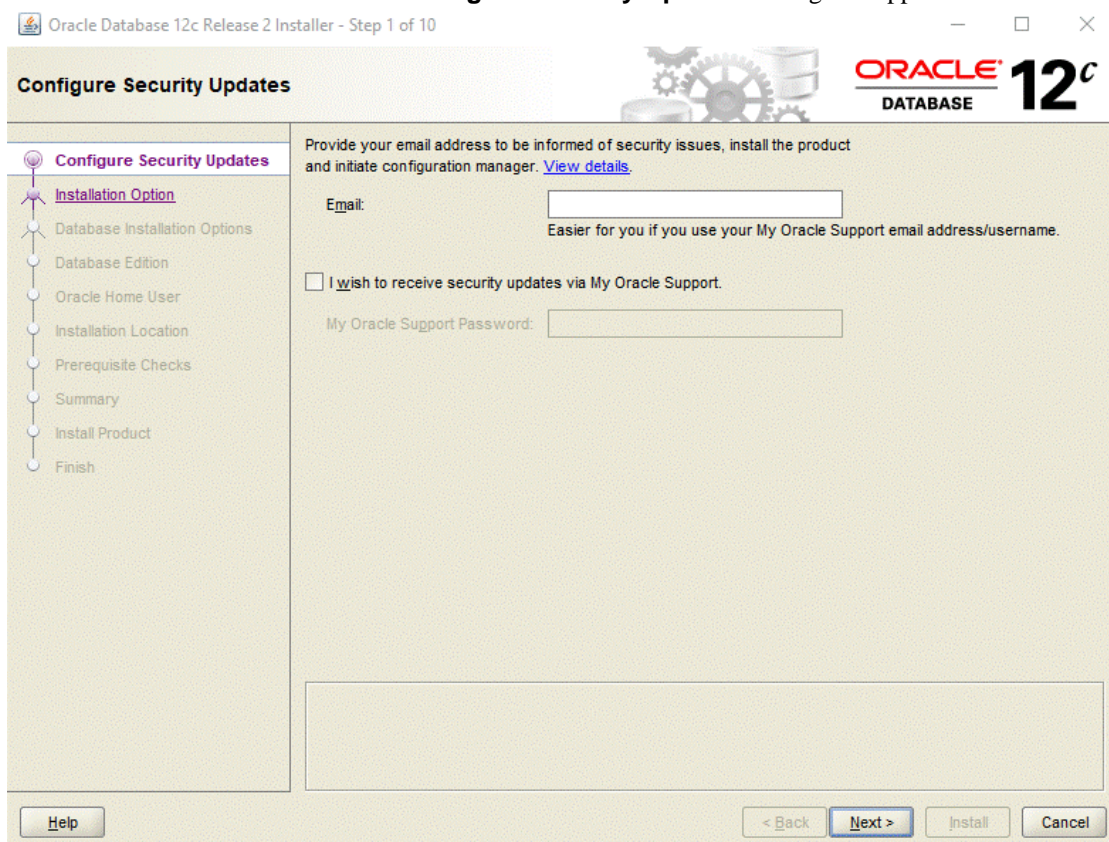
To install the Oracle software

1. Execute **setup.exe** as Administrator to start the Oracle 12c Universal Installer:

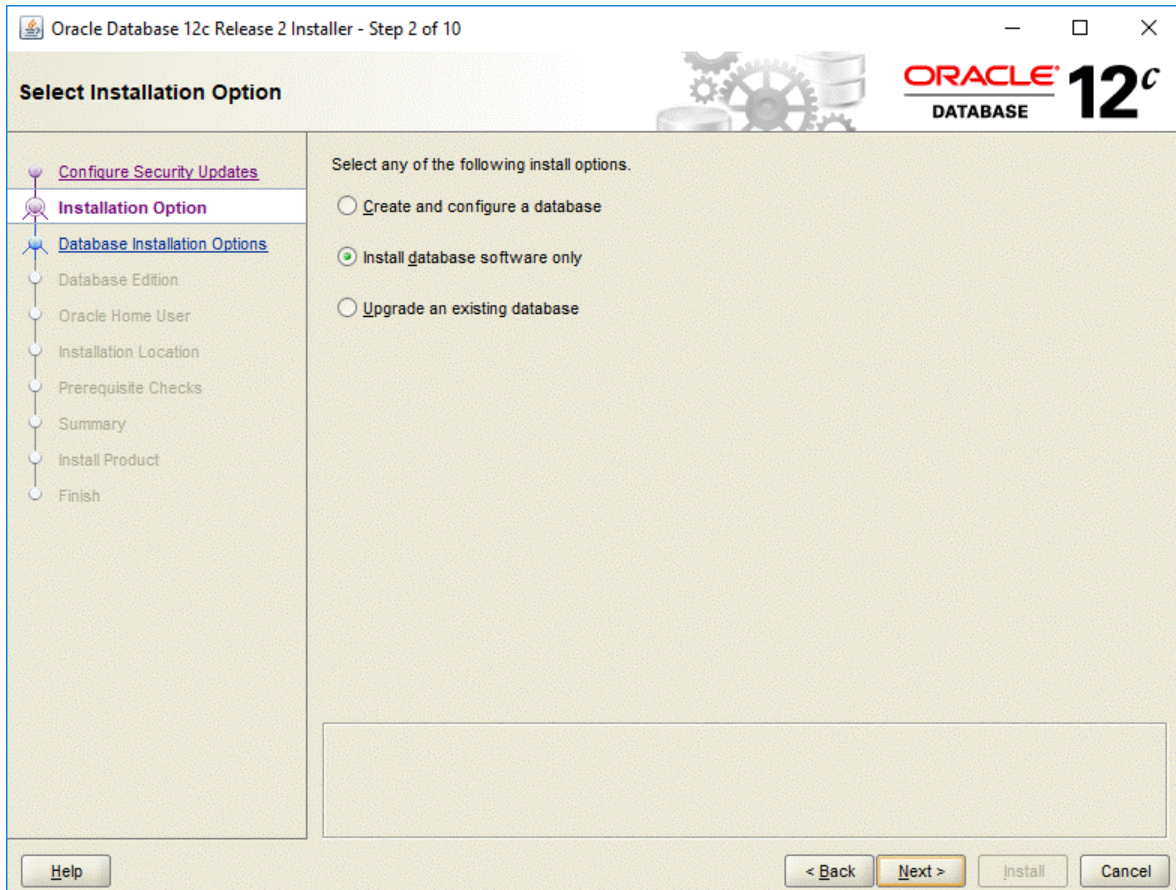




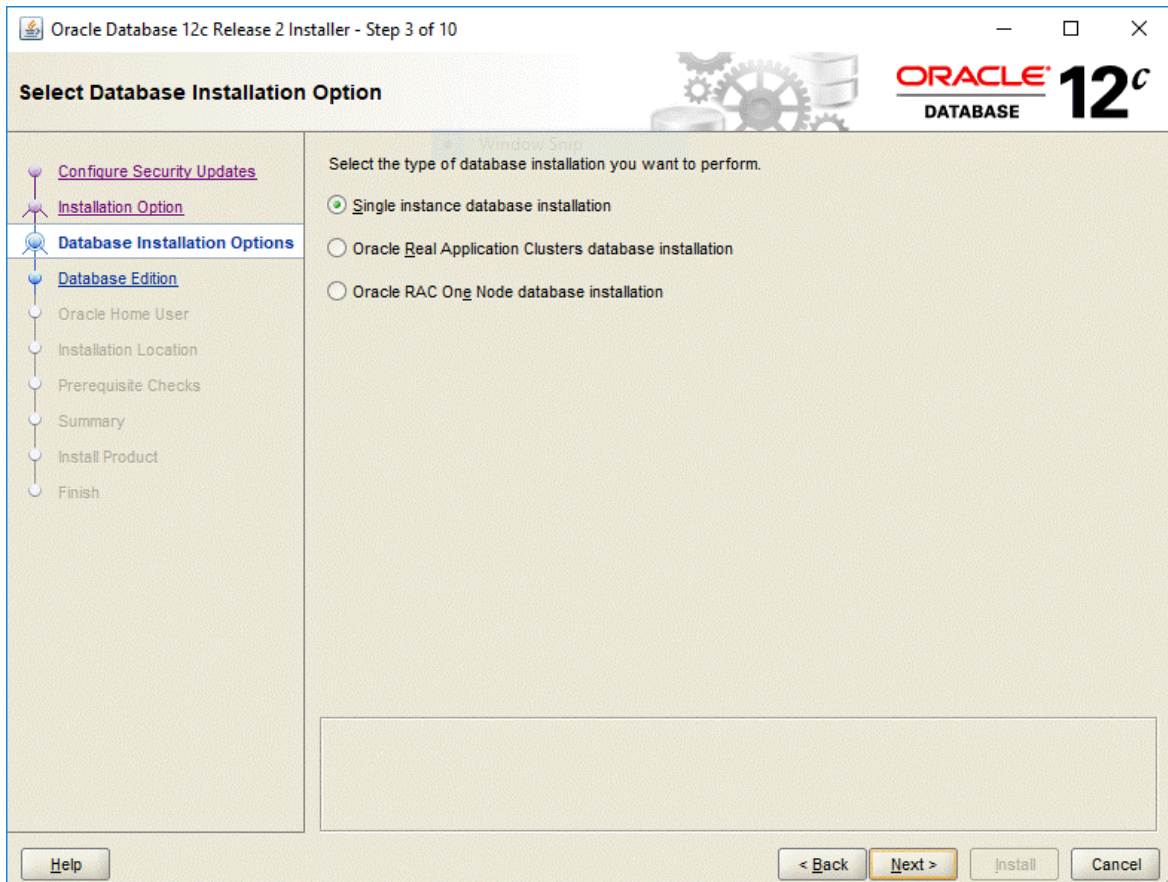
2. The **Configure Security Updates** dialog box appears.



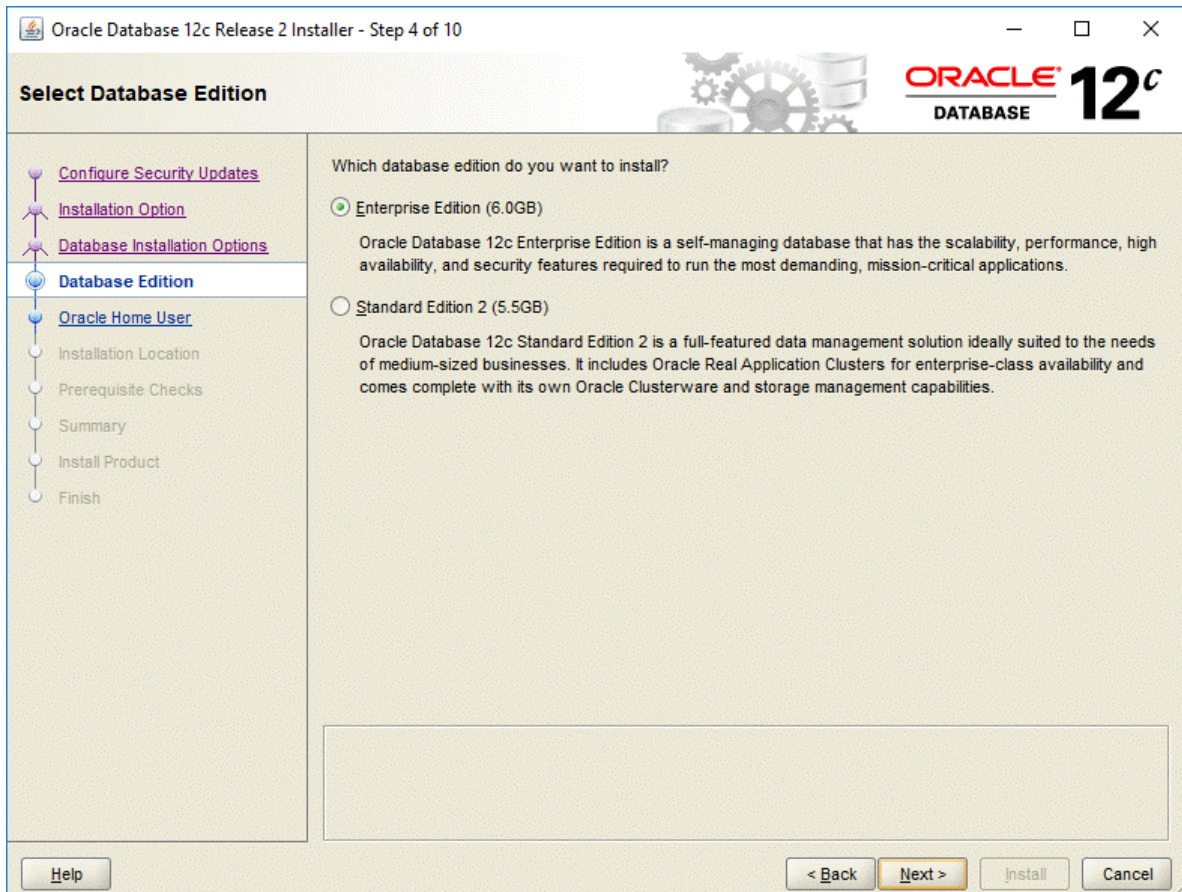
3. Optionally, type the email address to which security updates are to be sent, or provide your Oracle support information, and then click **Next**.
4. The **Select Installation Option** dialog box appears.



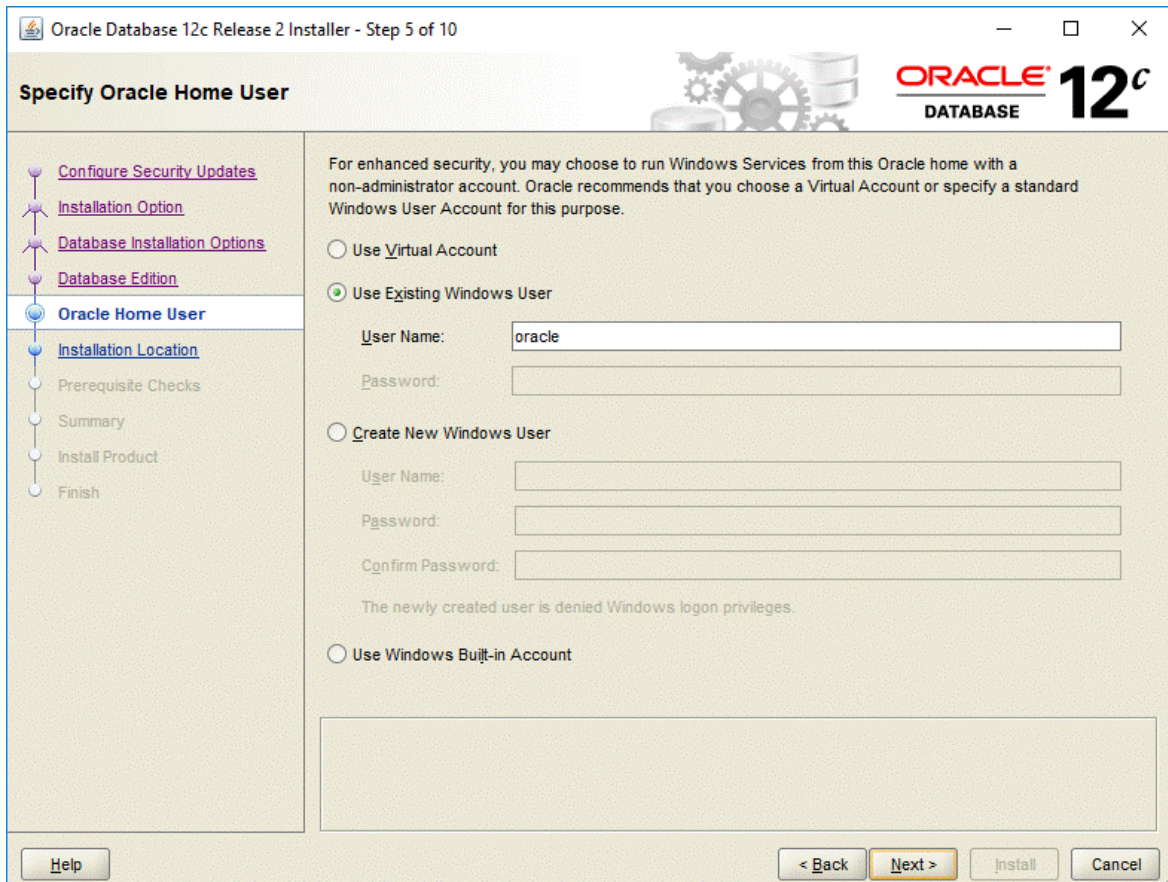
5. Select **Install database software only** and then click **Next**.
6. The **Select Database Installation Option** dialog box appears.



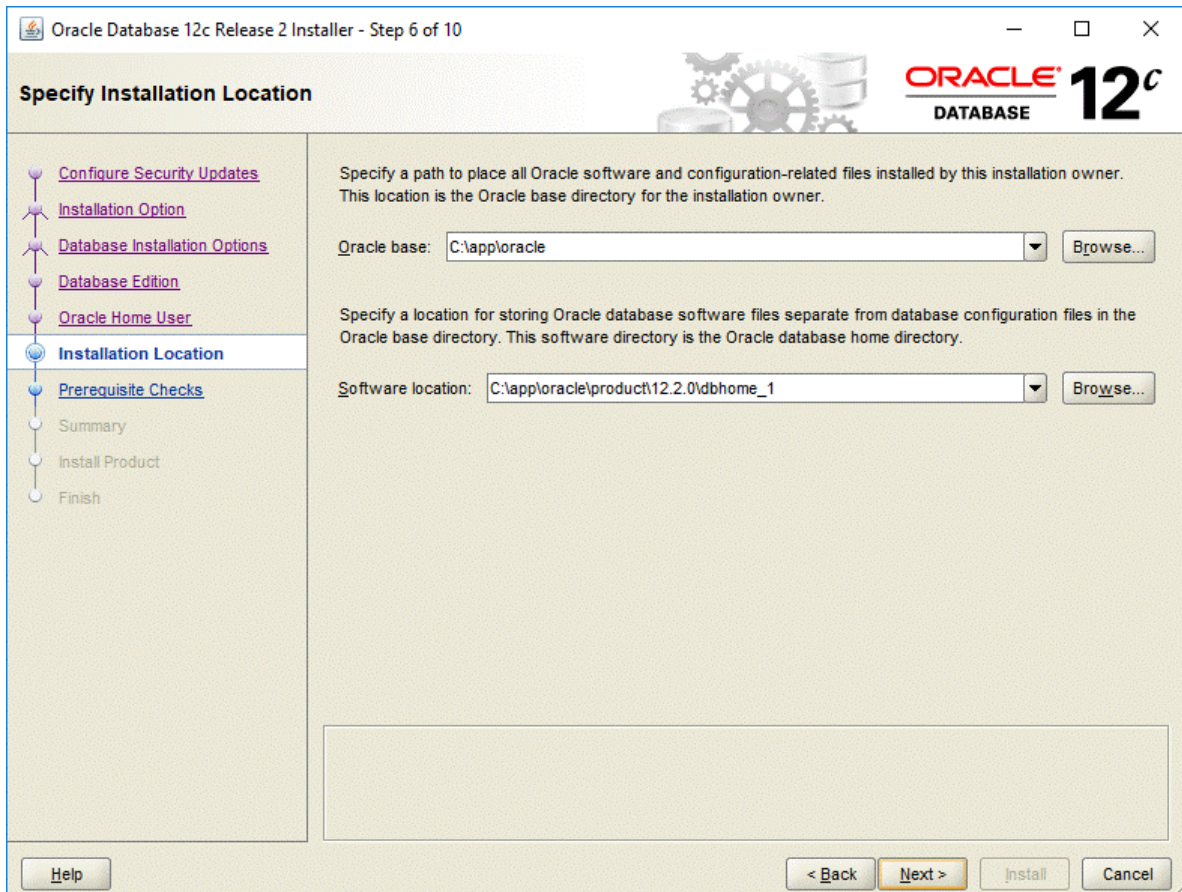
7. Select **Single instance database installation** and then click **Next**.
8. If you are prompted to set a language option, leave the default of English and click **Next**.
9. The **Select Database Edition** dialog box appears.



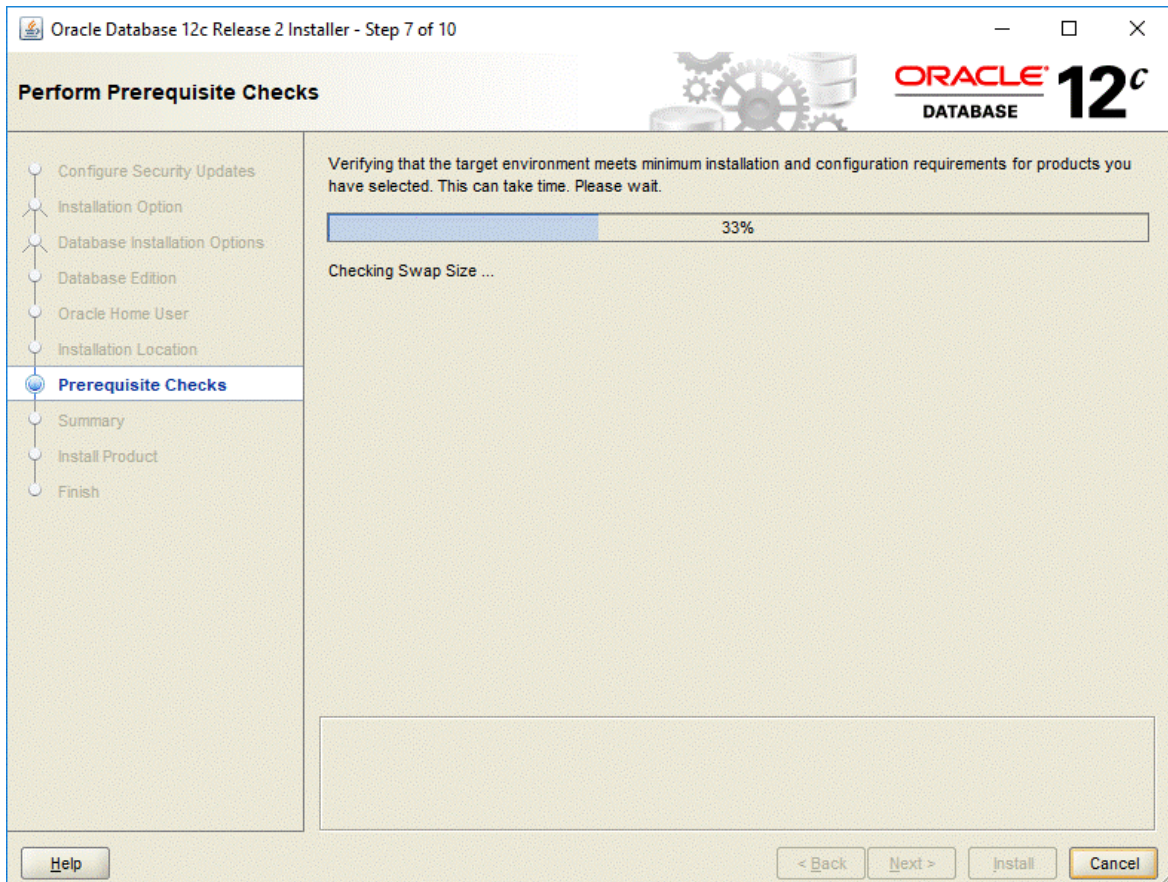
10. Select the edition you are licensing. These instructions illustrate installation of Enterprise Edition. Then click **Next**.
11. The **Specify Oracle Home User** dialog box appears.



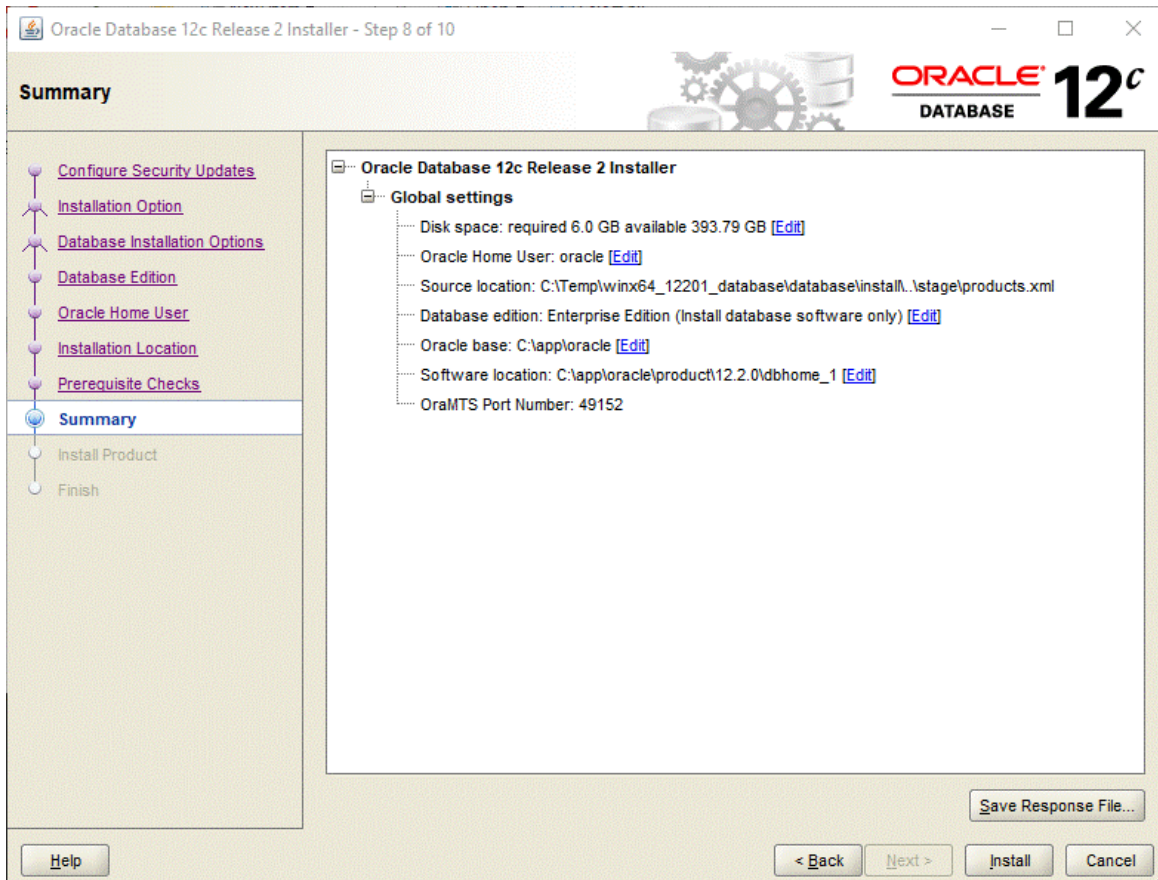
12. Select the Windows user account you want to use and specify the username and password if required, and then click **Next**.
13. The **Specify Installation Location** dialog box appears.



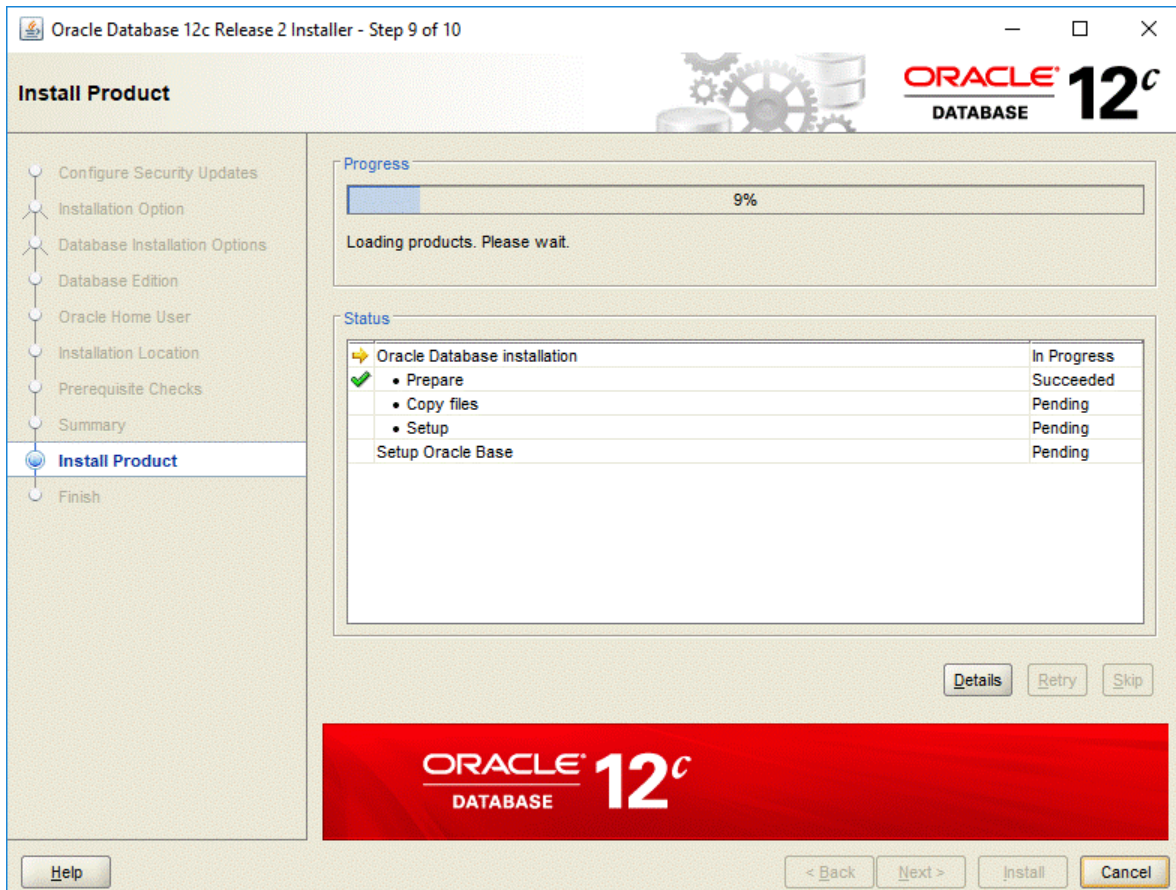
14. The software installation location you select is referred to as ORACLE_HOME. Keep the defaults or make changes and then click **Next**.
15. The **Perform Prerequisite Checks** dialog box appears.



16. After the prerequisite checks complete, the **Summary** dialog box appears reflecting the settings you chose.

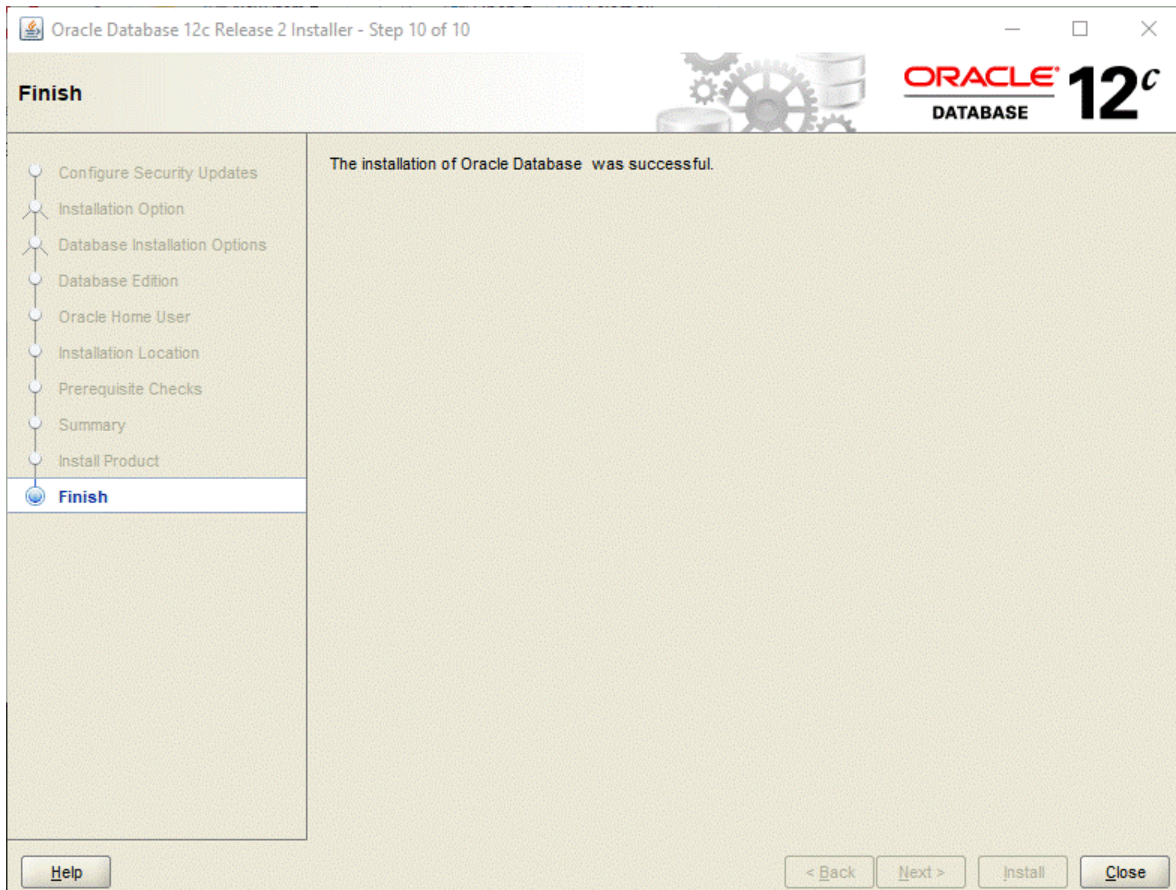


17. Click **Install**. The **Install Product** dialog box appears.



18. When installation is complete, click **Next**.

The **Finish** dialog box appears.



19. Click **Close**.

Verifying ActivePerl is in Your System PATH

Active Perl is used to run the database creation and configuration scripts. Oracle 12c (Enterprise and Standard) includes a version of ActivePerl with the installation.

IMPORTANT Be sure that the ActivePerl "bin" directory is in your system PATH variable.

Running the ETM[®] Database Configuration Script

IMPORTANT: You must run this script as **Administrator**.

To run the ETM[®] Database creation and configuration script

1. Open the following script in a text editor:

<INSTALL_DIR>\scripts\Oracle\ oracle_install.pl

2. Locate the line that reads:

```
$cmd = $ORACLE_BIN."orapwd file=$ORAPWD_FILE  
password=change_on_install";
```

3. This is a temporary password for script execution only; it is not retained in the system. Oracle 12.2.0.1 enforces minimum password complexity requirements and requires the password to contain at least one digit. At a minimum, append a digit to the end of the supplied password, or replace it with a password that meets Oracle's minimum password complexity requirements.
4. Save the file.
5. Open a command prompt as **Administrator** in the ETM **Scripts** directory: **<INSTALL_DIR>\scripts\Oracle**.
6. At the prompt, type: **oracle_install.pl**
7. Follow the onscreen prompts.
 - Some prompts provide default values that you can accept by pressing ENTER. These are denoted by square brackets.
 - Example input is denoted by parentheses. You must type a value for these items; no default values are provided.

Sample Output of Running oracle_install.pl

```
C:\Apps\SecureLogix\ETM\scripts\Oracle> perl oracle_install.pl
```

```
SecureLogix Corporation's DB Creation Utility
```

```
Version: 2.0
```

```
Please enter your OS Type (DOS/UNIX) [DOS]: DOS
```

```

Please enter your Domain Name (securelogix.com): slc.com
slc.com - Is this correct? (y/n) [n]: y
Please enter your Host Address [10.1.2.201]:
10.1.2.201 - Is this correct? (y/n) [n]: y
Please Enter the value for ORACLE_BASE (C:\app\oracle\): C:\app\oracle\
Are you sure you want to set ORACLE_BASE to C:\app\oracle\? (y/n): y
Please Specify the Oracle version. (11 or 12): 12
Found Environment variable ORACLE_HOME
Found ORACLE_HOME environment variable
C:\app\oracle\product\12.2.0\dbhome_1\
Found directory C:\app\oracle\product\12.2.0\dbhome_1\
Set ORACLE_HOME to: 'C:\app\oracle\product\12.2.0\dbhome_1\'? (y/n) [y]:
Unable to find admin directory under Oracle Base. Now checking Oracle Home.
Set ORACLE_DATA to: 'C:\app\oracle\product\12.2.0\dbhome_1\oradata\'? (y/n)
[y]:
Please Enter the value for ORACLE SID: jitc122b
jitc122b - Is this correct? (y/n) [Y]:
Please enter the listener port for Oracle [1521]:
1521 - Is this correct? (y/n) [y]:
Creating Data Directories for SID: jitc122b
Attempting to create directory:
C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\ ...Success.
Attempting to create directory:
C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\ad hoc\ ...Success.
Attempting to create directory:
C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\arch\ ...Success.
Attempting to create directory:
C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\bdump\ ...Success.
Attempting to create directory:
C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\cdump\ ...Success.
Attempting to create directory:
C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\create\ ...Success.
Attempting to create directory:
C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\exp\ ...Success.
Attempting to create directory:
C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\pfile\ ...Success.

```

```

Attempting to create directory:
C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\udump\ ...Success.

Attempting to create directory:
C:\app\oracle\product\12.2.0\dbhome_1\oradata\jitc122b\ ...Success.

Would you like the script to create the orapwd file? (y/n) [y]:
Would you like the script to modify the listener.ora file? (y/n) [y]:
Would you like the script to modify the tnsnames.ora file? (y/n) [y]:
Would you like to create the init.ora file for this database? (y/n) [y]:
Would you like the script to create the Database Service for Windows? (y/n)
[y]:

Enter password for Oracle service user: ← This is the password for the Oracle user
account specified during installation of Oracle 12.2.0.1

Instance created. ← IF SCRIPT PAUSES HERE, PRESS 'ENTER' KEY TO RESUME

Would you like to generate the Oracle scripts to generate the database?
(y/n) [y]:

Please enter the preferred Tablespace name [ETM]:

Please enter the ETM User name [etmuser]:

Please specify the password for the ETM User: etmpass

Please re-enter the password for the ETM User: etmpass

Would you like to generate the Oracle scripts to generate a non-owner ETM
application user? (y/n) [n]:

Create Database Sql script written to:
C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\create\create_db_jitc12
2b.sql

These scripts contain the details of how the database
will be created. If you would like to configure the
tablespaces, redo files, rollback segments, or other
parameters, please modify this file before running it.

Would you like to run the Oracle scripts to generate the database? (y/n)
[y]:

Please enter the password for database user 'sys' [change_on_install1]:

C:\app\oracle\product\12.2.0\dbhome_1\bin\sqlplus "sys/change_on_install1
AS SYSDBA"
@C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\create\create_db_jitc1
22b.sql

```

SQL*Plus: Release 12.2.0.1.0 Production on Fri Aug 31 13:10:48 2018

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Connected to an idle instance.

SQL>

SQL> REM * Actually starts the database instance

SQL> startup nomount

pfile="C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\pfile\init.ora"

ORACLE instance started.

Total System Global Area 536870912 bytes

Fixed Size 8748912 bytes

Variable Size 197132432 bytes

Database Buffers 322961408 bytes

Redo Buffers 8028160 bytes

SQL>

SQL> REM * Creates the physical database. Feel free to customize the redo logs here.

SQL> CREATE DATABASE jitc122b

2 MAXLOGFILES 32

3 MAXLOGMEMBERS 2

4 MAXLOGHISTORY 1

5 MAXDATAFILES 254

6 MAXINSTANCES 1

7 MAXLOGHISTORY 5000

8 DATAFILE

'C:\app\oracle\product\12.2.0\dbhome_1\oradata\jitc122b\system01.dbf' SIZE 150M REUSE AUTOEXTEND ON NEXT

10240K MAXSIZE UNLIMITED

9 EXTENT MANAGEMENT LOCAL

10 SYSAUX DATAFILE

'C:\app\oracle\product\12.2.0\dbhome_1\oradata\jitc122b\sysaux01.dbf' SIZE 120M REUSE AUTOEXTEND ON NEXT 10240K MAXSIZE UNLIMITED

```

11  SMALLFILE DEFAULT TEMPORARY TABLESPACE TEMP TEMPFILE
'C:\app\oracle\product\12.2.0\dbhome_1\oradata\jitc122b\temp01.dbf' SIZE
500M REUSE AUTOEXTEND ON

12  SMALLFILE UNDO TABLESPACE "UNDOTBS1" DATAFILE
'C:\app\oracle\product\12.2.0\dbhome_1\oradata\jitc122b\undotbs01.dbf' SIZE
500M REUSE AUTOEXTEND ON

13  LOGFILE
'C:\app\oracle\product\12.2.0\dbhome_1\oradata\jitc122b\redo01.log' SIZE
10M,

14      'C:\app\oracle\product\12.2.0\dbhome_1\oradata\jitc122b\redo02.log'
SIZE 10M,

15      'C:\app\oracle\product\12.2.0\dbhome_1\oradata\jitc122b\redo03.log'
SIZE 10M;

```

Database created.

SQL>

```
SQL> CREATE TABLESPACE "ETM" LOGGING
```

```

2      DATAFILE
'C:\app\oracle\product\12.2.0\dbhome_1\oradata\jitc122b\ETM01.dbf' SIZE 100M

3      AUTOEXTEND ON NEXT 10M

4      EXTENT MANAGEMENT LOCAL;

```

Tablespace created.

SQL>

```
SQL> REM * Create the default user for use with the system.
```

```
SQL> CREATE USER etmuser PROFILE "DEFAULT" IDENTIFIED BY "etmpass"
```

```

2      DEFAULT

3      TABLESPACE "ETM" TEMPORARY

4      TABLESPACE "TEMP" ACCOUNT UNLOCK;

```

User created.

SQL>

```
SQL> REM * Explicitly grant the required system privileges. We explicitly
grant
SQL> REM * the privileges as opposed to granting them via roles due to the
fact
SQL> REM * that when running jobs via DBMS_JOB.RUN() roles are ignored.
Since
SQL> REM * we use DBMS_JOB to run various maintenance procedures, we go
ahead
SQL> REM * and explicitly grant the privileges to cover all our bases. (For
more
SQL> REM * information refer to the Oracle Database documentation sets for
the
SQL> REM * corresponding Oracle version regarding the DBMS_JOB package).
SQL> GRANT ALTER SESSION TO etmuser;
```

Grant succeeded.

```
SQL> GRANT CREATE PROCEDURE TO etmuser;
```

Grant succeeded.

```
SQL> GRANT CREATE SEQUENCE TO etmuser;
```

Grant succeeded.

```
SQL> GRANT CREATE SESSION TO etmuser;
```

Grant succeeded.

```
SQL> GRANT CREATE MATERIALIZED VIEW TO etmuser;
```

Grant succeeded.

```
SQL> GRANT CREATE TABLE TO etmuser;
```


Grant succeeded.

```
SQL> GRANT CREATE TRIGGER TO etmuser;
```

Grant succeeded.

```
SQL> GRANT CREATE VIEW TO etmuser;
```

Grant succeeded.

```
SQL> GRANT CREATE ANY SYNONYM TO etmuser;
```

Grant succeeded.

```
SQL> GRANT DROP ANY SYNONYM TO etmuser;
```

Grant succeeded.

```
SQL> GRANT SELECT ANY DICTIONARY TO etmuser;
```

Grant succeeded.

```
SQL> GRANT EXECUTE ON DBMS_LOCK to etmuser;
```

```
GRANT EXECUTE ON DBMS_LOCK to etmuser
```

*

ERROR at line 1:

ORA-04042: procedure, function, package, or package body does not exist

```
SQL>
```

```
SQL> REM * By default, just grant the user unlimited use of the tablespaces.
```

```
SQL> REM * DBAs may optionally revoke this grant and set up specific quotas
```

```
SQL> REM * for the various tablespaces.  
SQL> GRANT UNLIMITED TABLESPACE TO etmuser;
```

Grant succeeded.

```
SQL>
```

```
SQL>
```

```
SQL>
```

```
SQL> spool off
```

```
SQL> EXIT
```

Disconnected from Oracle Database 12c Enterprise Edition Release 12.2.0.1.0
- 64bit Production

Database creation script executed. Verify output and press 'y' to continue
(y/n) [y]:

Would you like to generate the initialization script that needs to be run by
sys? (y/n) [y]:

Sys Init Sql script written to:

C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\create\sys_init_jitc122
b.sql

Would you like to run the 'sys db init' scripts to initialize the database?
(y/n) [y]:

Depending on the system, this script may require up to 30 minutes to
complete.

Please be patient. To verify script is running, you can check the log file
at:

C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\create\sys_init_jitc122
b.log and make sure data is being written to file.

C:\app\oracle\product\12.2.0\dbhome_1\bin\sqlplus "sys/change_on_install1
AS SYSDBA"

@C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\create\sys_init_jitc12
2b.sql > NUL

Sys Init Sql script executed. Check sys_init_jitc122b.log to verify status

Would you like to generate the initialization script that needs to be run by
system? (y/n) [y]:

System Init Sql script written to:
C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\create\system_init_jitc122b.sql

Would you like to run the 'system db init' scripts to initialize the database? (y/n) [y]:

Please enter the password for database user 'system' [manager]:

C:\app\oracle\product\12.2.0\dbhome_1\bin\sqlplus "system/manager "
@C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\create\system_init_jitc122b.sql > NUL

System Init Sql script executed. Check system_init_jitc122b.log to verify status

C:\app\oracle\product\12.2.0\dbhome_1\bin\sqlplus "sys/change_on_install1 AS SYSDBA"
@C:\app\oracle\product\12.2.0\dbhome_1\admin\jitc122b\create\post_create_grants.sql

SQL*Plus: Release 12.2.0.1.0 Production on Fri Aug 31 13:28:30 2018

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Connected to:

Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production

Grant succeeded.

Disconnected from Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production

Would you like the script to update the Database Service for Windows to restart automatically? (y/n) [y]:

End of SecureLogix Corporation's DB Creation Utility

Configure the TNS Listener

A listener with a default name of LISTENER is created when you install the Oracle software, but it must be started or restarted to update it with the configuration for the ETM Database.

To configure the TNS Listener

1. Open a command prompt as Administrator.
2. Type: `lsnrctl status`
3. If a message similar to the following appears, the listener is not running.

```
Connecting to (ADDRESS=(PROTOCOL=TCP) (HOST=127.0.0.1) (PORT=1521))
```

```
TNS-12541: TNS: no listener
```

```
TNS-12560: TNS: protocol adapter error
```

```
TNS-00511: No listener
```

```
64-bit Windows Error: 61: Unknown error
```

4. If the listener is not running, at the `lsnrctl` prompt, type: `start`:

```
LSNRCTL> start
```

```
Starting tnslnsr: please wait...
```

```
Enter oracle's password : ← Enter the password of the user specified during Oracle installation
```

5. If the listener is running, stop it by typing: `stop` at the `lsnrctl` prompt

```
LSNRCTL> stop
```

6. When it stops, restart it by typing: `start` at the `lsnrctl` prompt:

```
LSNRCTL> start
```

```
Starting tnslnsr: please wait...
```

```
Enter oracle's password : ← Enter the password of the user specified during Oracle installation
```

7. When it starts, output should appear showing that it is listening for the ETM instance.

Copy the Database Driver to Required Locations

After installing and configuring the database, copy the supported database driver to each of the following ETM System installation directories:

- The ETM Server.
- Any remote Report Server.

- Any remote ETM Database Maintenance Tool.

Remote ETM System Clients do not require the driver file.

Only the following configurations are supported with Oracle 12.2.0.1:

- **ETM® System v7.1.2 Build 74** using one of the following drivers:
 - **ojdbc6** from Oracle 11.2.0.4
 - **ojdbc7** from Oracle 12.1.0.2
- **ETM® System v7.1.1 Build 47** using the following driver:
 - **ojdbc6** from Oracle 11.2.0.4

You can download the supported drivers from the Oracle website.

Edit Configuration Files

If you are using **ETM® System v7.1.2 Build 74** with **ojdbc7** from Oracle 12.1.0.2, perform the following configuration. Due to changes in that Oracle 12c driver, configuration files for the ETM Server, Report Server, and ETM Database Maintenance Tool must be edited to enable the ETM System to connect to the database.

ETM Server Configuration File

To edit the ETM Server configuration file

1. On the ETM Server host, open the file **ETMManagementService.cfg** in a text editor. This file is at the root of the ETM Management Server installation directory.
2. Locate the line labeled :

```
# Java switches to supply to the Java Virtual Machine.
```

3. At the end of the line, append the following switch:


```
-Doracle.jdbc.autoCommitSpecCompliant=false
```
4. The new line should look like the following:

```
switches=-Xmx512M -Djava.rmi.server.useLocalHostName=true -
Dsun.java2d.noddraw=true -Doracle.jdbc.autoCommitSpecCompliant=false
```

5. Save the file.

Report Server Configuration File

To edit the Report Server configuration file

1. On the Report Server host, open the file **ETMReportService.cfg** in a text editor. This file is at the root of the ETM System installation directory.
2. Locate the line labeled:

```
# The switches to use when creating the java environment that will run the
# ServerActivator.
```

3. At the end of the line, append the following switch:

```
-Doracle.jdbc.autoCommitSpecCompliant=false
```

4. The new line should look like the following::

```
App_Switches=-Djava.security.policy=policy -Dsun.java2d.noddraw=true -
Doracle.jdbc.autoCommitSpecCompliant=false
```

5. Locate the line labeled:

```
# The switches to use when launching the rmid executable
```

6. At the end of the line, append the following switch:

```
-Doracle.jdbc.autoCommitSpecCompliant=false
```

7. The new line should look like the following::

```
RMID_Switches=-J-Xrs -J-Djava.rmi.server.useLocalHostName=true -J-
Djava.security.policy=policy -J-Dsun.java2d.noddraw=true -J-
Djava.rmi.server.logCalls=true -C-server -C-Xmx512M -C-
Djava.rmi.server.useLocalHostName=true -C-Djava.security.policy=policy
-C-Dsun.java2d.noddraw=true -C-
Djava.class.path=".;...;activation.jar;comm.jar;jakarta-oro-
2.0.jar;log4j-
1.2.8.jar;mail.jar;ojdbc6.jar;ojdbc14.jar;report11_pro.jar;report12_pro
.jar;slc-crypt.jar;TeleWall.jar" -C-
Doracle.jdbc.autoCommitSpecCompliant=false
```

8. Save the file.

Database Maintenance Tool Configuration File

To edit the Database Maintenance Tool configuration file

1. On the Database Maintenance Tool host, open the file **ETMDBMaintTool.cfg** in a text editor. This file is at the root of the ETM System installation directory.
2. Locate the line labeled:

```
# Java switches to supply to the Java Virtual Machine.
```

1. At the end of the line, append the following switch:

```
-Doracle.jdbc.autoCommitSpecCompliant=false
```

The new line should look like the following:

```
switches=-client -Xmx200M -Dsun.java2d.noddraw=true
-Doracle.jdbc.autoCommitSpecCompliant=false
```

2. Save the file.

Where to Go From Here

The Oracle 12c Enterprise Edition database is now installed, running, and configured with the ETM System user and necessary permissions and privileges. If the ETM Management Server is installed on a different computer from the database, see "Install the Oracle Client" below. If the

ETM Server is on the same computer as the database, continue with "Connect with the ETM® Database Maintenance Tool" on page 36.

See the *ETM® System Installation Guide* for complete ETM Software installation and configuration instructions.

Install the Oracle Client

If the ETM® Management Server is installed on the same computer as Oracle, you do not need to install the Oracle Client separately, since they are installed as part of the database software. Continue with the next topic. However, if the ETM Management Server is installed on a different computer from the database, you need to install the Oracle Client on the computer on which the ETM Management Server is installed. The Client is used for CCMI and Directory imports.

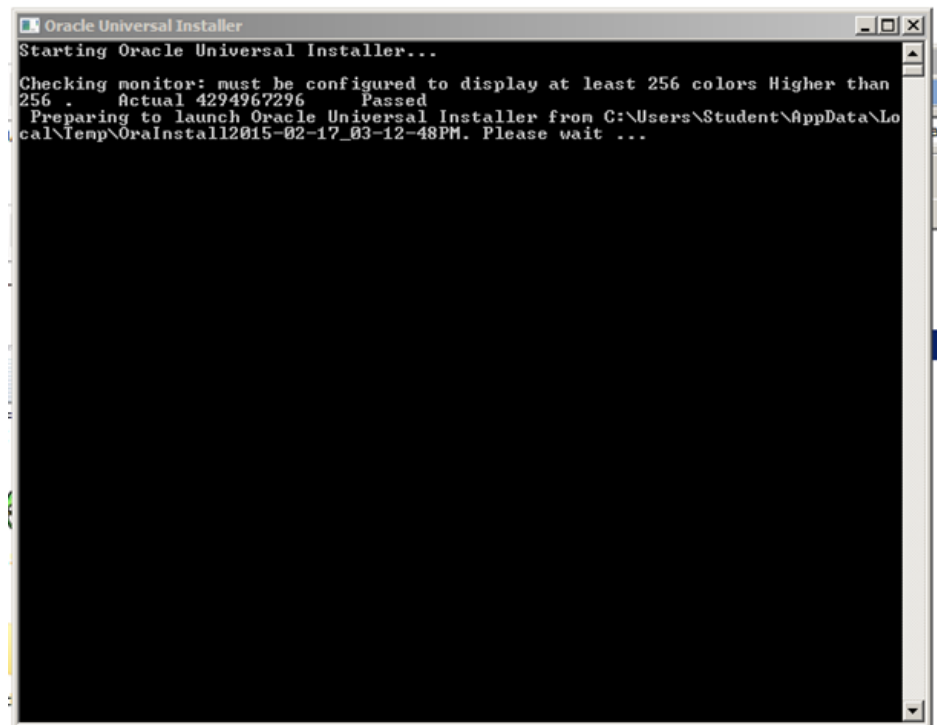
Notes:

- Ensure you log on as a member of the Administrators group to install the software and use **Run as Administrator**.
- Oracle Database Client 12c Release 12.2.0.1 cannot share Oracle base with Oracle homes from earlier database versions, such as Oracle Database 11g Release 2 (11.2) and earlier.
- The Oracle Database Client software is available on installation media or you can download it from the Oracle Technology Network (OTN) website, or Oracle Software Delivery Cloud Web site.

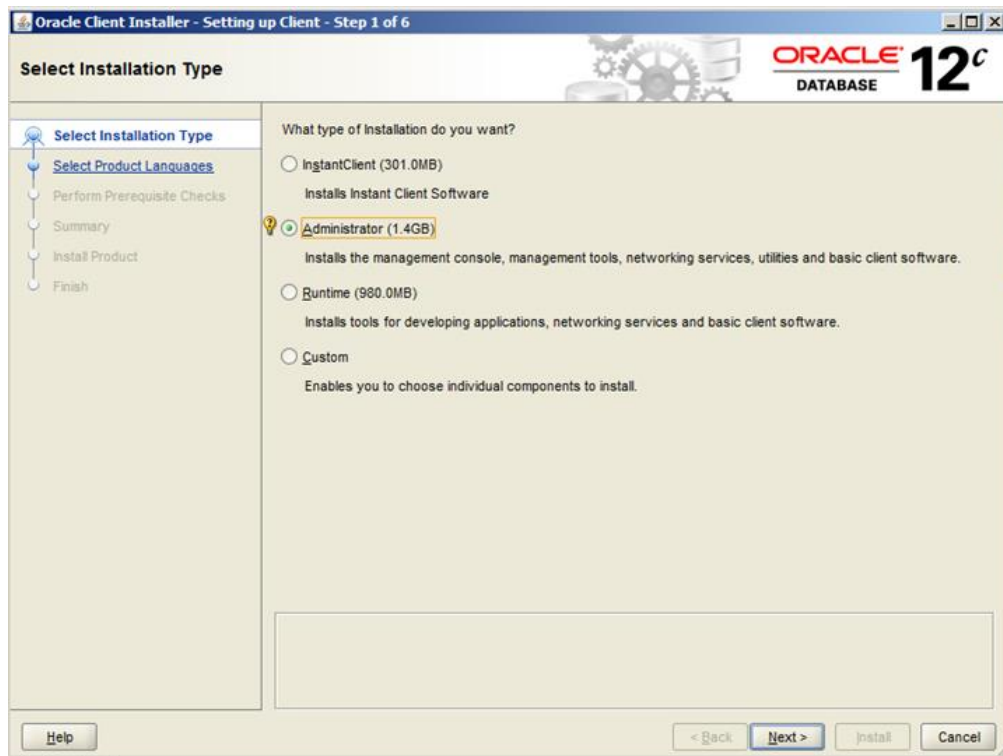
Installing the Oracle Client Tools

To install the Oracle Client Tools

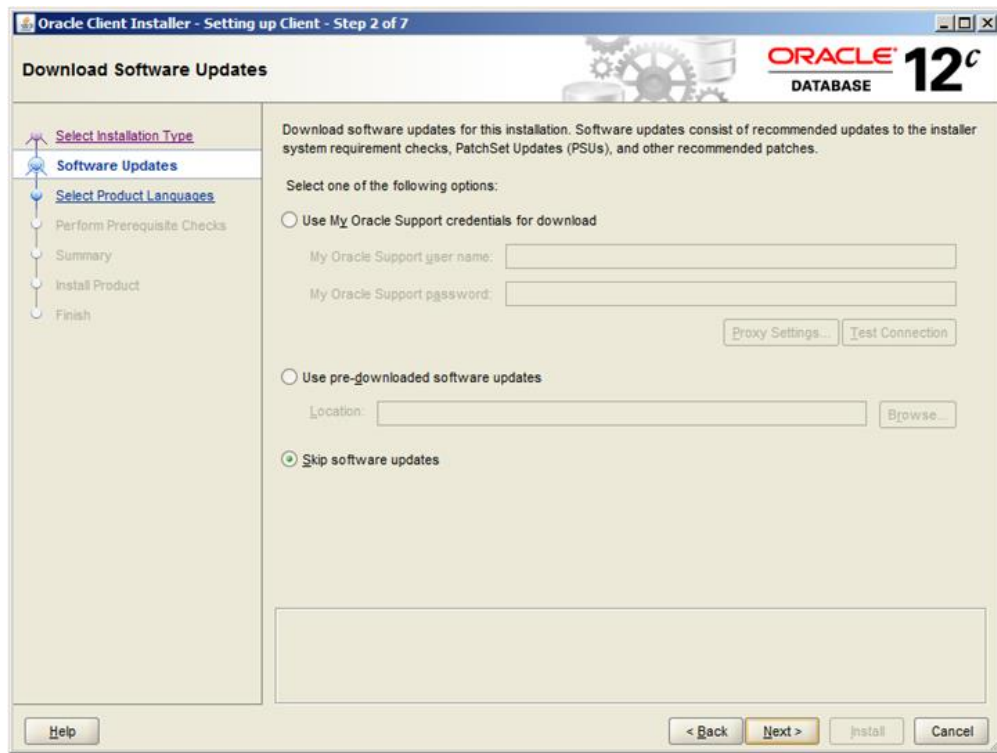
1. Insert the Oracle Database Client installation media and navigate to the **client** directory. Alternatively, navigate to the directory where you downloaded and unzipped the installation files.
2. Right-click **setup.exe** and select **Run as Administrator** to start the Oracle UI.



3. The **Select Installation Type** dialog box appears.

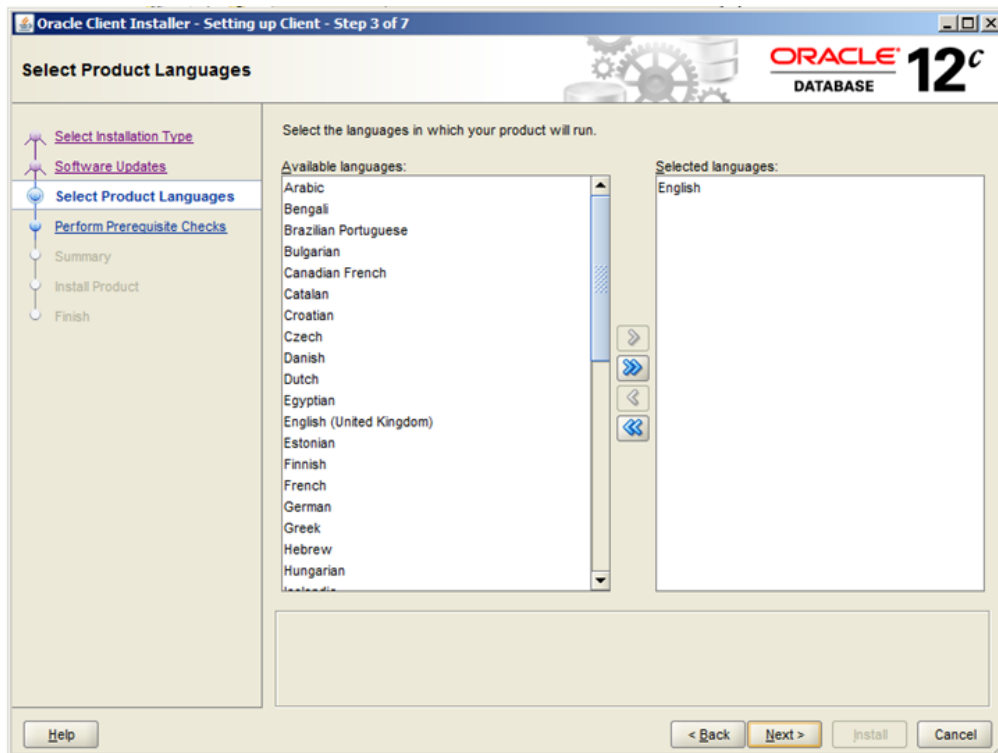


4. Select **Administrator** and click **Next**.



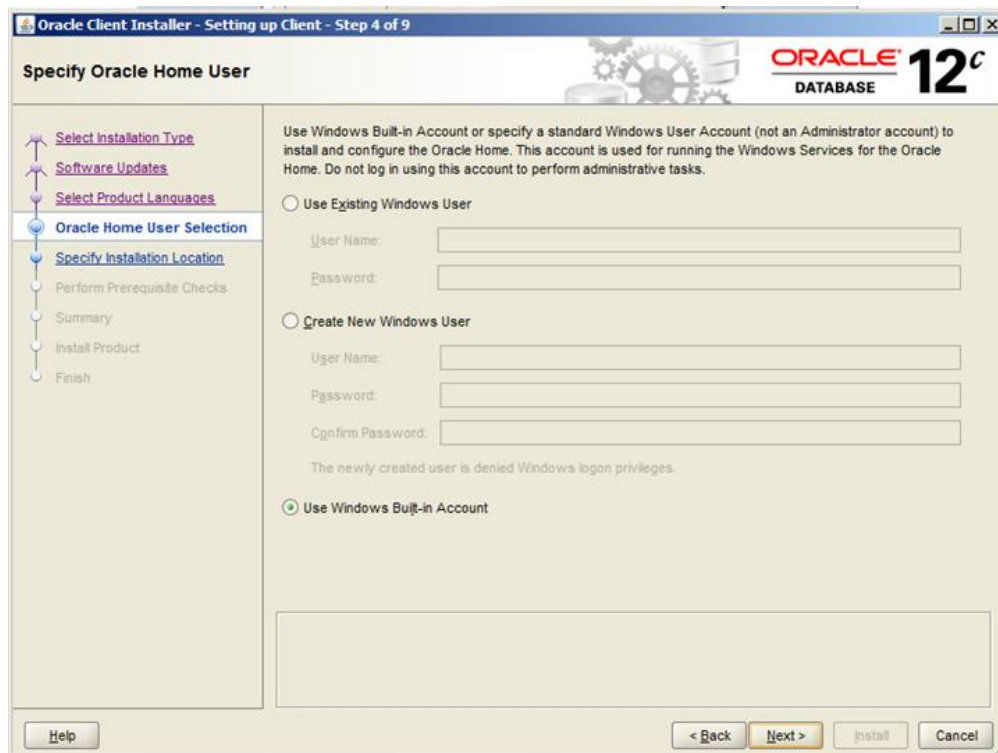
5. The **Download Software Updates** dialog box appears. Make an applicable selection and click **Next**.

The **Select Product Languages** dialog box appears.



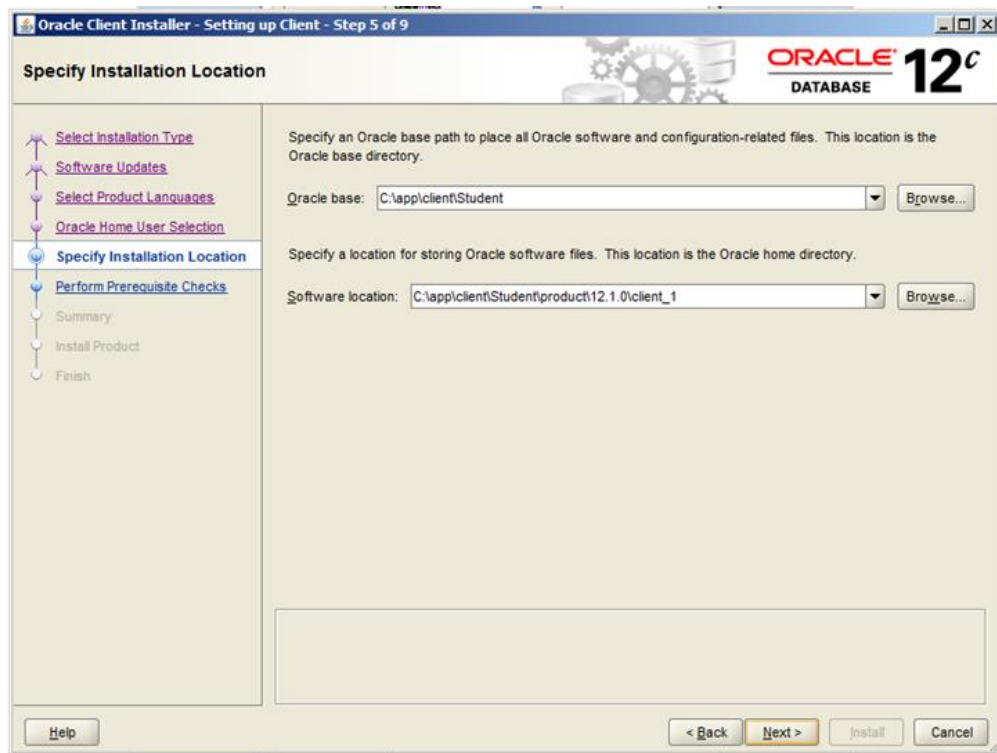
6. Leave it set to English and click **Next**.

The **Specify Oracle Home User** dialog box appears.



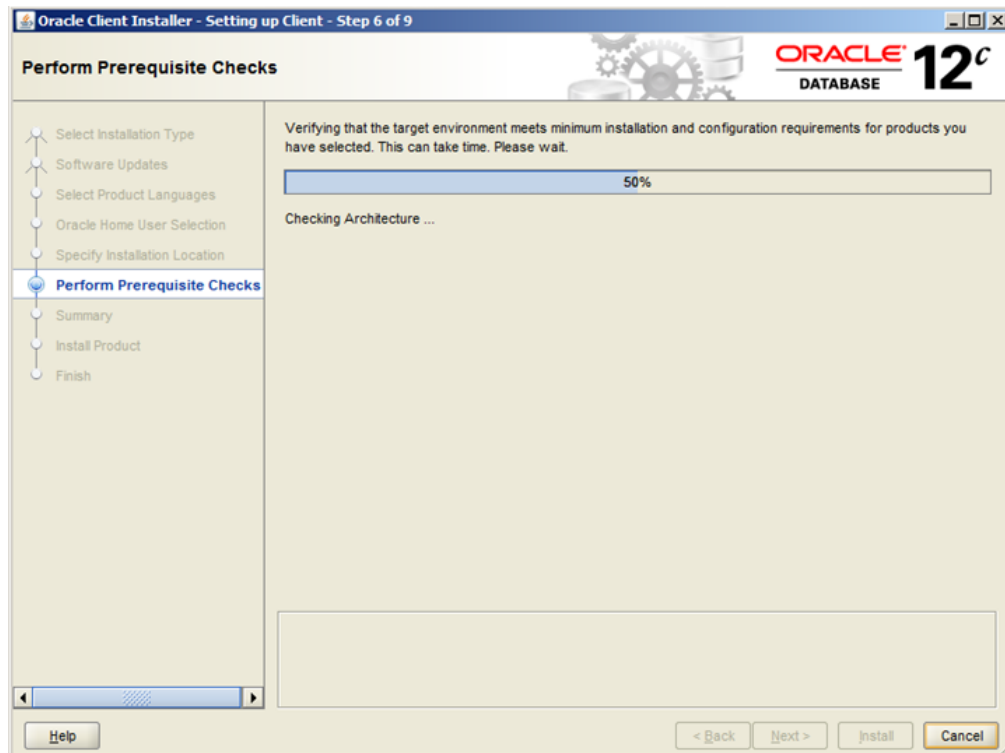
7. Make your selection and provide the requested information for that selection (if any) and click **Next**.

The **Specify Installation Location** dialog box appears.

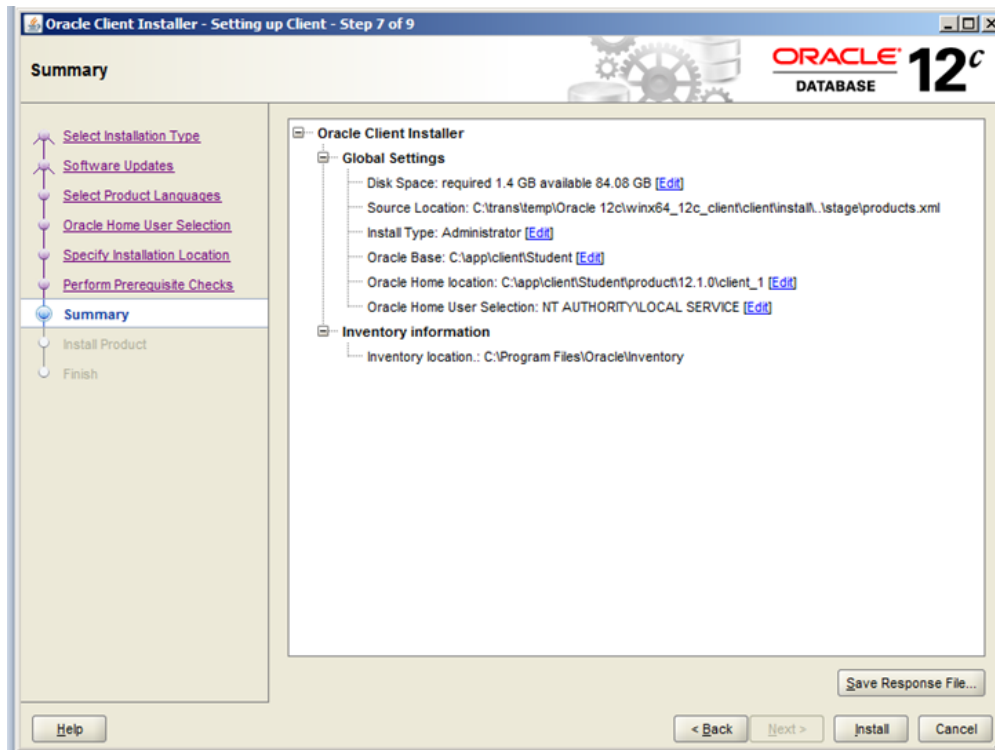


8. Specify paths or leave the defaults and click **Next**.

The **Perform Prerequisite Checks** dialog box appears showing a summary of your installation selections.



When the prerequisite checks complete, the **Summary** dialog box appears showing a summary of your installation choices.



9. Verify the information is correct and then click **Install**. The **Install** dialog box appears and shows progress of the installation. Installation begins and may take some time.
10. When installation completes, click **Finish**.
11. Continue with "Edit the **tnsnames.ora** File" below.

Edit the tnsnames.ora File

The **tnsnames.ora** file tells the ETM® Server where to find the ETM Database. The **tnsnames.ora** file is in the directory **<ORACLE_HOME>network\admin** and can be edited in a text editor such as Notepad. When the Database is on the same system as the Management Server, the script edits this file. When they are on separate systems, the file must be edited after you install the Oracle Client.

The **tnsnames.ora** file appears similar to the following:

```
Jackson_10.1.1.173 =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP) (HOST =
        10.1.1.173) (PORT = 1521))
    )
  )
(CONNECT_DATA = (SID = Jackson) (SERVER = DEDICATED))
```

where `Jackson` is the database SID, `10.1.1.173` is the IP address of the database host computer, and `1521` is the TCP/IP port used by the Listener.

To edit the `tnsnames.ora` file

- Edit the database instance name, IP address, and port number to reflect your database configuration.

Connect with the ETM® Database Maintenance Tool

You connect to the database with the ETM Database Maintenance Tool to complete database configuration. See the *ETM® System Installation Guide* for instructions. The instructions vary depending on whether you are creating a standalone database or a database repository for managed databases.