



# Installing and Configuring Oracle 18c XE on Windows for Use with the ETM<sup>®</sup> System

For Use with the ETM<sup>®</sup> System v9.x



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# Oracle 18c XE: Installation and Configuration for the ETM<sup>®</sup> Database

## Introduction

This document explains how to install the Oracle 18c XE software on Windows and then run the Perl scripts to prepare the database for use with the ETM<sup>®</sup> System.

Oracle 18c Enterprise Edition, Standard Edition, Standard Edition One, and XE are supported. This document describes 18c XE installation and assumes the ETM Database and Management Server are on the same host system.

### 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 18c XE software into an existing Oracle home.
- Before attempting to install Oracle Database 18c XE, uninstall any existing Oracle Database XE or database with the SID XE from the target system.

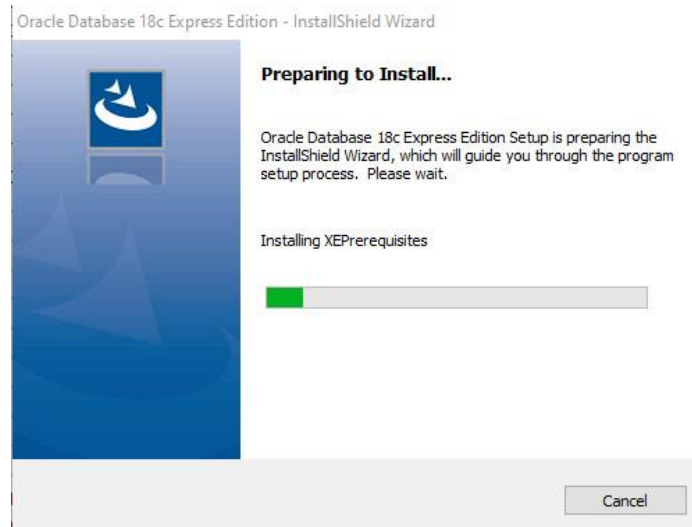
## Installation and Configuration

### Installing Oracle 18c XE

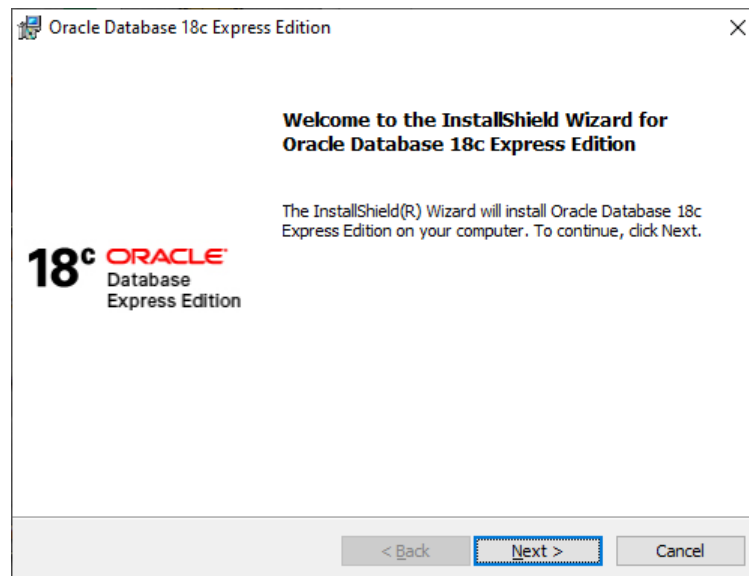
#### To install the Oracle software

1. Download the Oracle 18c XE zip-file distribution from the Oracle web site: [Oracle Database Express Edition \(XE\) Downloads](#) - Oracle Database 18c Express Edition for Windows x64 (OracleXE184\_Win64.zip).
2. Unzip the contents of the Oracle zip-file into your preferred Oracle installation location. Example:  
C:\app\oracle\product\WINDOWS.X64\_XE184\_db\_home

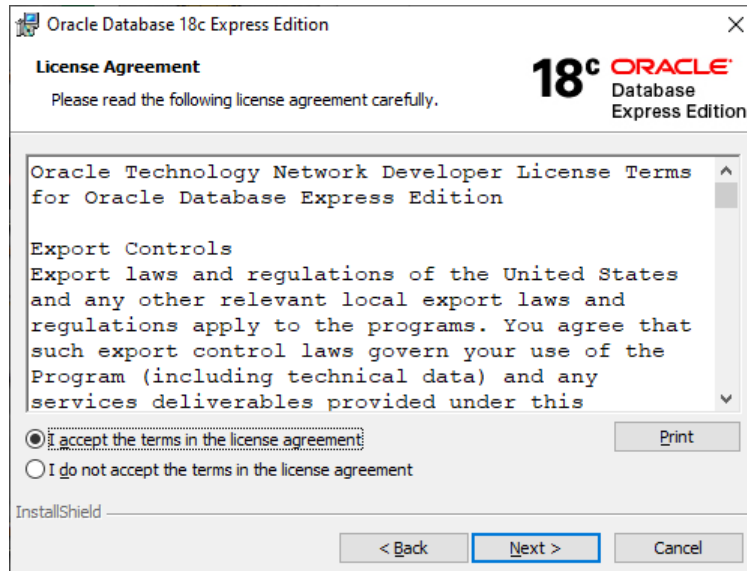
3. Execute **setup.exe** located in the Oracle installation location as Administrator to start the Oracle 18c XE Universal Installer:



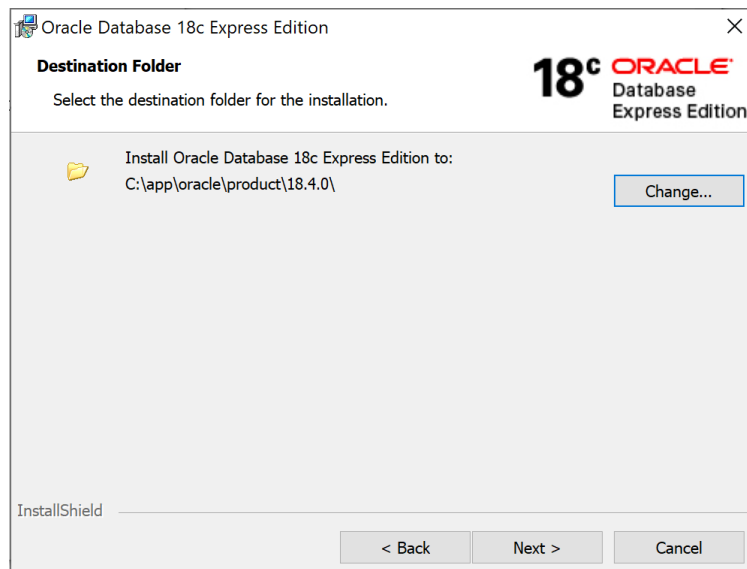
4. After the setup program prepares the **InstallShield** wizard, the **Welcome** dialog box appears.



5. Click **Next**. The license agreement appears.



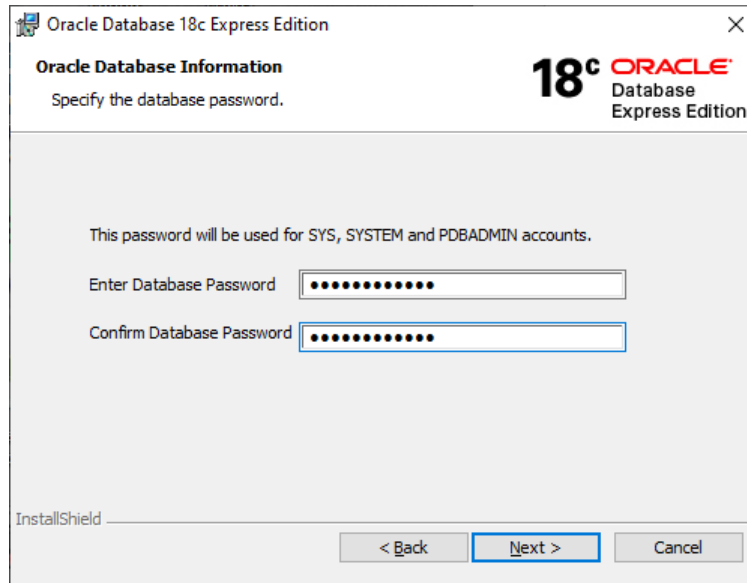
6. Accept the license agreement and click **Next**. The **Destination Folder** dialog box appears.



7. Click **Next** to accept the default installation location. The default location is **C:\app\oracle\product\18.4.0**. You can optionally browse to and select a different destination folder. Do not select a directory that has spaces in its name.
8. The **Oracle Database Information** dialog box appears. In the **Enter Password** and **Confirm Password** boxes, type the password

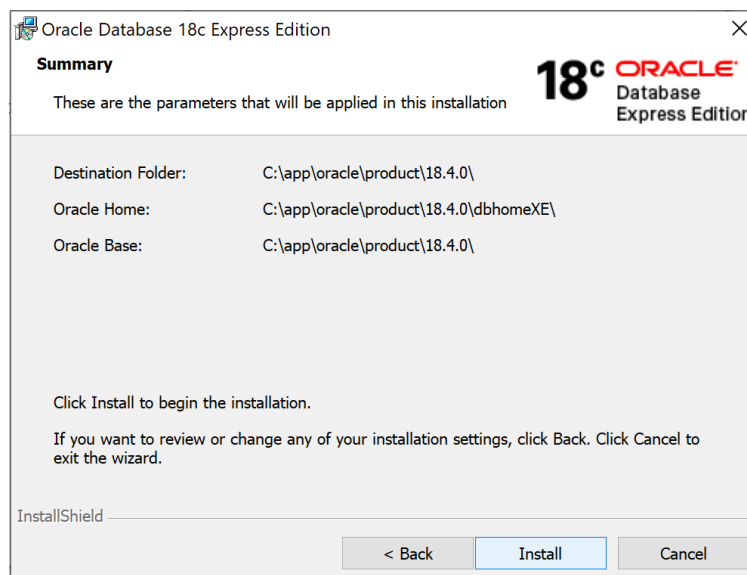
to be used for the **SYS**, **SYSTEM**, and **PADMIN** database accounts, and then click **Next**.

**Note:** The same password will be used for each of these accounts. Oracle recommends that the password be at least 12 characters in length and contain at least 1 uppercase character, 1 lower case character, and 1 digit [0-9].



The dialog box is titled "Oracle Database 18c Express Edition" and "Oracle Database Information". It prompts the user to "Specify the database password." The text states: "This password will be used for SYS, SYSTEM and PADMIN accounts." There are two password input fields: "Enter Database Password" and "Confirm Database Password", both containing ten dots. At the bottom, there are three buttons: "< Back", "Next >" (highlighted in blue), and "Cancel".

9. The **Summary** dialog box appears. Click **Install**.

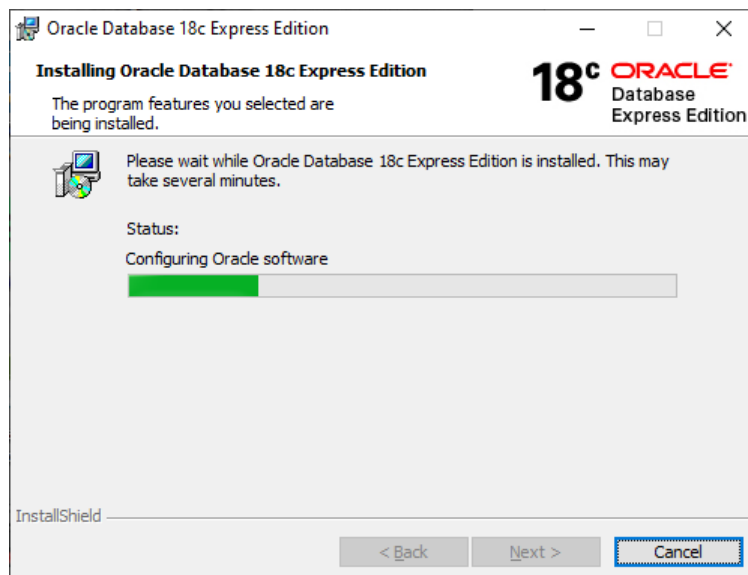
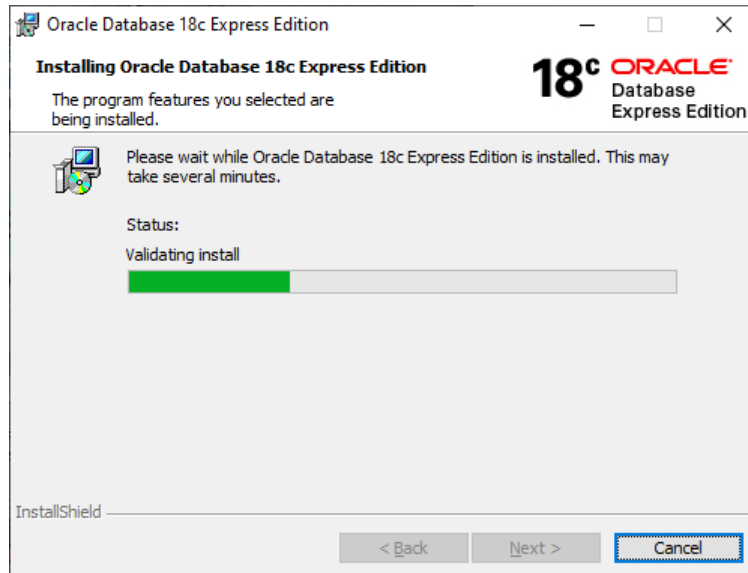


The dialog box is titled "Oracle Database 18c Express Edition" and "Summary". It states: "These are the parameters that will be applied in this installation". The parameters listed are:

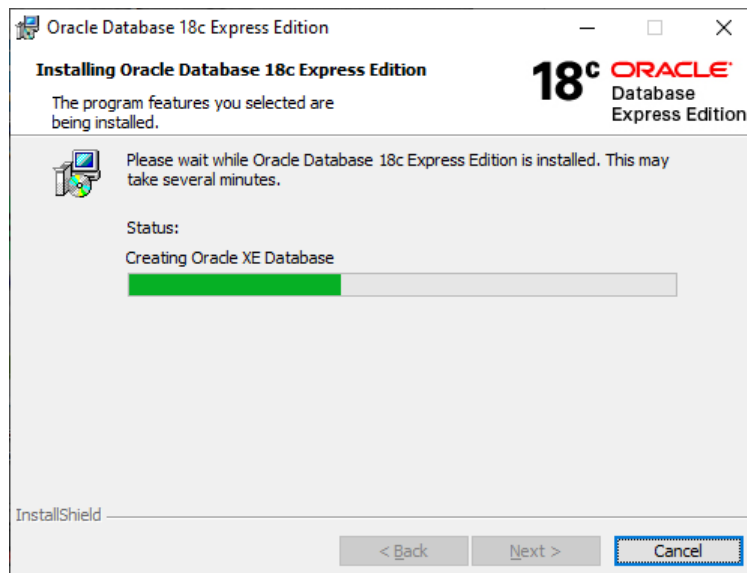
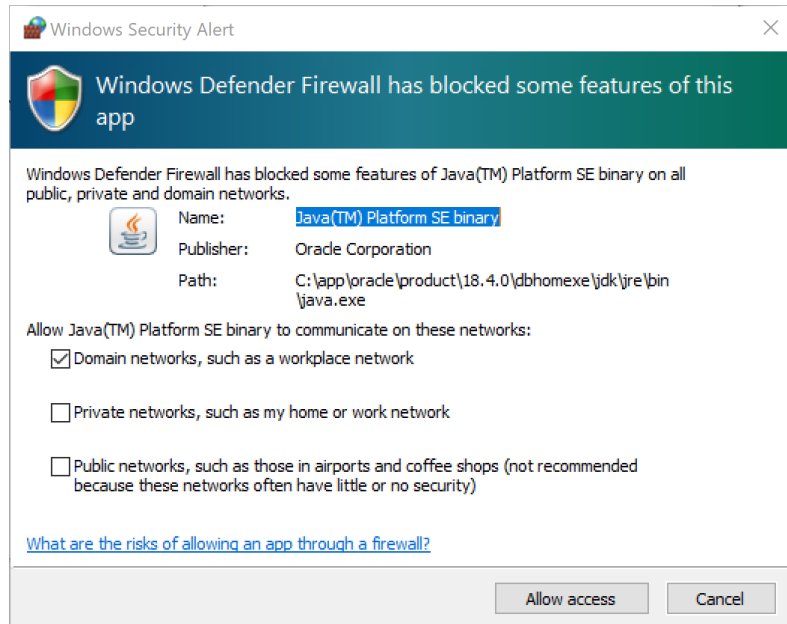
Destination Folder:	C:\app\oracle\product\18.4.0\
Oracle Home:	C:\app\oracle\product\18.4.0\dbhomeXE\
Oracle Base:	C:\app\oracle\product\18.4.0\

Below the table, it says: "Click Install to begin the installation." and "If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard." At the bottom, there are three buttons: "< Back", "Install" (highlighted in blue), and "Cancel".

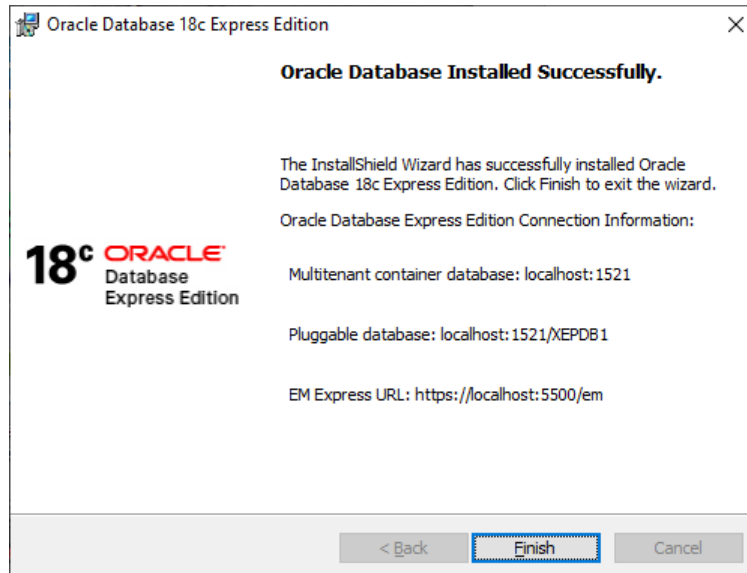




10. If you receive a prompt from Windows Defender during installation, such as the screenshot below, select **Domain Networks** and then click **Allow Access**.



11. When installation completes, the **Oracle Database Installed Successfully** dialog box appears.

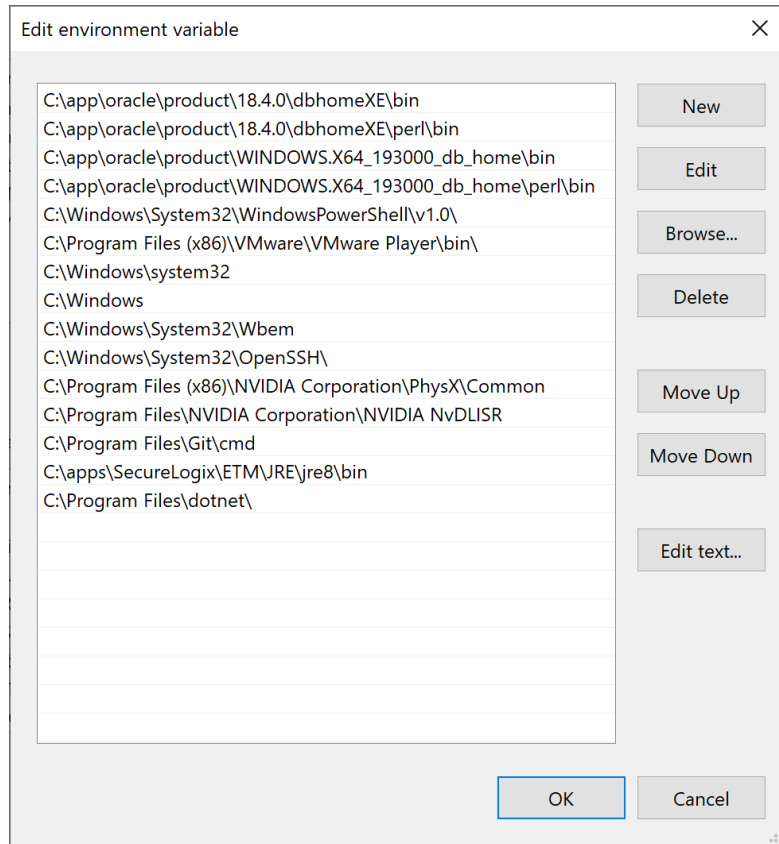


Oracle 18c XE is now installed and ready to be configured for use by the ETM System.

***Verifying Perl is  
in Your System  
PATH  
Verifying  
Perl is in Your  
System PATH***

Perl is used to run the database creation and configuration scripts. Oracle 18c XE includes a version of Perl with the installation.

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



## Running the ETM<sup>®</sup> Database Configuration Script

Unlike the other supported versions of Oracle, installation of the Express Edition (XE) instantiates and starts a database instance, identified by the SID **XE**, and a listener automatically. The database configuration script, which is run on the database host computer, configures the database instance for use by the ETM<sup>®</sup> Management Server.

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

### To run the ETM<sup>®</sup> Database configuration script

1. Open a command prompt as **Administrator** in the ETM **Scripts** directory: **<INSTALL\_DIR>\scripts\Oracle**.
2. At the prompt, type: **perl oraclexe\_config.pl**
3. 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 `oraclexe_config.pl`**

```
c:\Apps\SecureLogix\ETM\scripts\Oracle>perl oraclexe_config.pl

SecureLogix Corporation's Oracle XE DB Customization Utility
Version: 3.0

Please enter your OS Type (DOS/UNIX) [DOS]:
Please Enter the value for Oracle XE installation directory (C:\): c:\
Are you sure you want to set Oracle XE installation directory to c:\? (y/n):
y
Please Specify the Oracle version. (11, 12, 18, or 19): 18
Please enter your Domain Name (securelogix.com): slc.com
slc.com - Is this correct? (y/n) [n]: y
Would you like the script to modify the tnsnames.ora file? (y/n) [y]:
Please enter your Host Address [192.168.56.1]: 127.0.0.1
127.0.0.1 - Is this correct? (y/n) [n]: y
Please enter the listener port for Oracle [1521]:
1521 - Is this correct? (y/n) [y]:
Would you like the script to modify the listener.ora file? (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
Database customization sql script written to:
c:\app\oracle\product\18.4.0\dbhomeXE\config\scripts\etmCustomDB.sql
Please enter the password for database user 'sys': SecureLogix1
c:\app\oracle\product\18.4.0\dbhomeXE\bin\sqlplus "sys/SecureLogix1 AS
SYSDBA"
@c:\app\oracle\product\18.4.0\dbhomeXE\config\scripts\etmCustomDB.sql
```

SQL\*Plus: Release 18.0.0.0.0 - Production on Sat May 28 12:30:54 2022  
Version 18.4.0.0.0

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Connected to:

Oracle Database 18c Express Edition Release 18.0.0.0.0 - Production  
Version 18.4.0.0.0

SQL>

SQL> REM \*

SQL> REM \* Switch out of the USERS tablespace and then delete it

SQL> alter DATABASE DEFAULT TABLESPACE SYSAUX;

Database altered.

SQL> DROP TABLESPACE USERS INCLUDING CONTENTS AND DATAFILES CASCADE  
CONSTRAINTS;

Tablespace dropped.

SQL>

SQL> REM \*

SQL> REM \* Create the ETM user and tablespace

SQL> REM \*

SQL> alter session set "\_ORACLE\_SCRIPT"=true;

Session altered.

SQL> CREATE TABLESPACE "ETM" LOGGING

```
2 DATAFILE 'c:\app\oracle\product\18.4.0\oradata\XE\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 succeeded.

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

Grant succeeded.

```
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> spool off
```

```
SQL> EXIT
```

```
Disconnected from Oracle Database 18c Express Edition Release 18.0.0.0.0 -  
Production
```

```
Version 18.4.0.0.0
```

Database customization script executed.

## 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:  
`c:\app\oracle\product\WINDOWS.X64_180000_db_home\bin\lsnrctl.exe 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, type:  
`c:\app\oracle\product\WINDOWS.X64_180000_db_home\bin\lsnrctl.exe 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:  
`c:\app\oracle\product\WINDOWS.X64_180000_db_home\bin\lsnrctl.exe stop`

6. When it stops, restart it by typing:

```
c:\app\oracle\product\WINDOWS.X64_180000_db_home\bin\lsnrctl.exe start
```

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

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

- 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 18c XE database driver (**ojdbc8**) from the Oracle 18c XE installation directory 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.

You can also download the supported driver from the Oracle website.

## Edit Configuration Files

Due to changes in that Oracle 18cXE 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

- 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.
- Locate the line labeled :

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

- At the end of the line, append the following switch:

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

- The new line should look like the following:

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

- Save the file.

### Report Server Configuration File

#### To edit the Report Server configuration file

- 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.
- Locate the line labeled:

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

- 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 18c XE database is now installed, running, and configured with the ETM System user and necessary permissions and privileges. This document assumes the Database and Management Server are installed on the same host system. Continue with "Connect with the ETM<sup>®</sup> Database Maintenance Tool" on page 19.

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

**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.