

# erwin Mart Server

**Installation Guide** 

Release 12.1

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## **Installing erwin Mart Server**

erwin DM connects to your Mart database through through a web server. The Mart comprises the following components:

#### **Database**

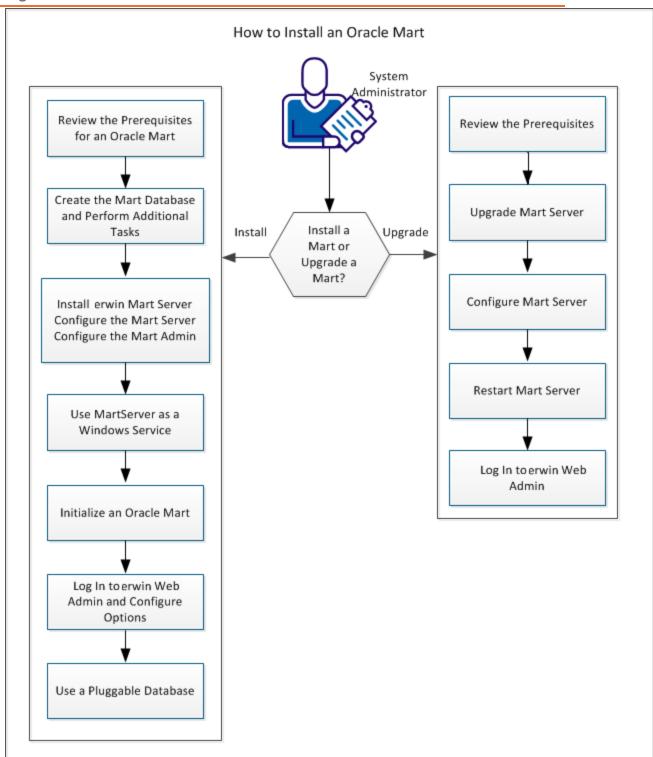
Stores the user data for the Workgroup Edition. You can use a supported or certified version of Oracle, SQL Server, or PostgreSQL database. Ensure that you use a new database and not an existing one that was created for an older version of the data modeling tool.

## **Applications**

Includes a web-based component, erwin Mart Administrator, that helps you manage the Mart through a web console.

#### Web server

Hosts erwin Mart Administrator. You can use a web server of your choice. If you have not installed a web server, use the erwin Mart Server option and install Tomcat.



To install and configure erwin Mart Server, follow these steps:

- 1. Review the Prerequisites for your database
- 2. Create the Mart Database and perform the additional tasks
- 3. Install erwin Mart Server
- 4. Use Mart Server as a Windows Service
- 5. <u>Initialize the Mart</u>
- 6. Log in to erwin Mart Administrator and configure settings

# **Review the Prerequisites for Database**

Before you install the Mart components, ensure that the minimum system requirements that are outlined in this topic are met.

You can use any of the following combinations to install erwin Data Modeler, the Mart database, and the MartServer application:

- Install erwin Data Modeler, the Mart database, and the MartServer application on the same computer.
- Install erwin Data Modeler, the Mart database, and the MartServer application on different computers.
- Install erwin Data Modeler and the Mart database on one computer, and install the MartServer application on a different computer.
- Install erwin Data Modeler on one computer, and install the Mart database and the MartServer application on a different computer.

Ensure that you always install the MartServer application on Windows operating system.

System requirements for installing the MartServer application

Hardware requirements (based on physical hardware performance, not a virtual environment):

Hardware requirements (based on physical hardware performance, not a virtual environment):

- 4 GHz or higher quad-core processor
- 16 GB RAM
- 100 GB of disk space or more as required to support your specific mart

## **Operating system:**

- Microsoft Windows Server 2012, R2
- Microsoft Windows Server 2016

## **Review the Prerequisites**

- Microsoft Windows Server 2019
- Microsoft Windows Server 2022
- Microsoft .NET Framework 4.0 and above
- All current Microsoft Windows critical updates are applied

#### Database:

- The Mart Server can use a standalone or can share an existing database server for Oracle, PostgreSQL, and SQL Server as follows:
  - Oracle: 12c r2, 18c, 19c, or 21c database. You can also use a pluggable database.
  - PostgreSQL: v9.6.2. Or, use either of the certified versions such as 9.6.21, 9.6.24, 10.16, 10.20, 11.11, 11.14, 12.6, 12.9, 13.2, 13.5, and 14.1 databases for the Mart database. You can also use PostgreSQL certified version 11.8 for Amazon Aurora.
  - SQL Server: 2014 SP3, 2016 SP2, or certified versions 2017 and 2019, Microsoft SQL Azure 12, and Amazon RDS 2019.

For more information on database prerequisites, refer to the erwin Mart Server Release Notes.

## erwin Mart Administrator web client:

Supported browsers:

- Microsoft Edge v97 or newer
- Mozilla Firefox v91 or newer
- Google Chrome v97 or newer
- Apple Safari 15 or newer



Ensure that your screen resolution is 1024 x 768 or higher. If your screen resolution is less than the minimum supported, some portions of the screen will not be visible.

## Other requirements

Help ensure that the following additional requirements are met:

- If you want to use Microsoft IIS as the web server, you have configured it.
- The DBMS is installed and prepared for creating the Mart Database.
- The Mart database is created. At least one user with administrator privileges is present. You have run the initial gueries on the Oracle database. For more information about the initial queries, see the Implementation Guide.
- If you want to add Windows Group users as Mart users, you have the Active Directory Server details.



You can add Windows Group users as normal Mart users, but not as Mart administrators. A Mart administrator must be a server or Windows user.

## Important disclaimer notice on all requirements

- 1. The requirements that are mentioned previously define the minimum requirements which permit the application to run with reasonable performance based on a small business use case scenario. The actual requirements for an enterprise-wide use case based on larger models and configurations require significantly greater resources to obtain acceptable performance.
- 2. These requirements are based on actual physical hardware (no virtual environment) and the following assumptions:
  - Minimal to no network overhead (both the database and application servers are locally installed)
  - Vendor's default install of the current version of their software (with all current service or fix packs)
  - No other applications sharing the defined hardware configuration (for example, a clean machine)

Any other hardware/software configurations are acceptable as long as they provide the same (or better) performance characteristics identified.

## **Create the Mart Database and Perform the Additional Tasks**

Configure your DBMS environment before you can install and use the software.

- Oracle
- **PostgreSQL**
- **SQL** Server

## **Install erwin Mart Server**

The Mart Server and Mart Admin war files are deployed on a Web server. You can either use an existing web server, or install the web server through the erwin MartServer 12.1 Installation Wizard. You must install erwin Mart Server and configure it regardless of whether you use Mart Server as a Windows service.



Ensure that you have reviewed the Install a Mart or Upgrade a Mart topic before proceeding.

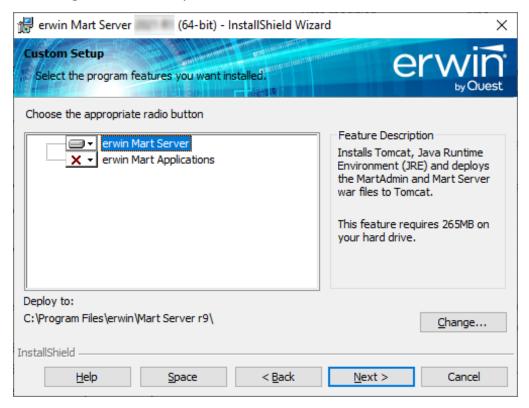
## Follow these steps:

1. Download the EDMMS12.1.exe file from the online erwin product page and run it.

The erwin MartServer 12.1 Installation Wizard appears.



2. Go through the wizard steps to install erwin Mart Server.

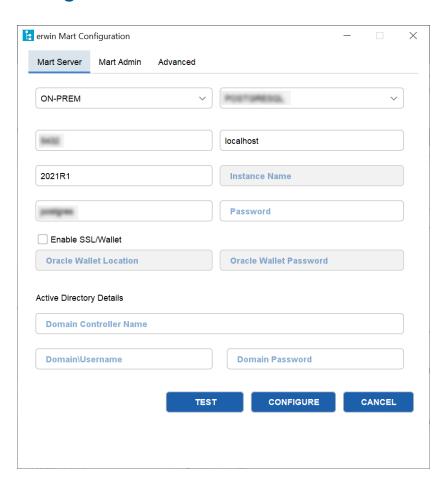


Depending on the options you select, erwin Mart Server and/or Oracle OpenJDK and Tomcat are installed.

3. From the Windows Start menu, click All Programs, erwin, Mart Server 12.1, Configure MartServer.

The erwin Mart Configuration dialog appears.

## **Configure the erwin Mart Server**



1. Complete the following fields in the Mart Server tab:

#### **Database Connection Method**

Specifies the connection method (On-Prem or Custom JDBC URL) used to connect to the Mart database. If you select Custom JDBC URL, the JDBC Connection String field appears. Enter your database connection string.

## **Database Type**

Specifies the database server type.

## Port No.

Specifies the port number of the database server.

#### Server Name

Specifies the name of the database server where you have installed the Mart database. For example, suppose that you are using SQL Server as the Mart database. Enter the name of the computer where SQL Server is installed.

#### **Instance Name**

Specifies the name of the database instance.

#### **Database Name**

Specifies the name of the Mart database.

If you are installing the Mart for the first time, use a new database. Do not use an existing database that was created for r7.3 through r8.2.9 Mart. If you are upgrading the Mart from any earlier release of r9 series to the latest release, use the corresponding Mart database.

#### **User Name**

Specifies the user name to connect to the Mart database. Enter the name of a user that is authenticated by the Mart database.



#### **Password**

Specifies the password to connect to the Mart database.

The following fields--Domain Controller Name, Domain/User Name, and Password are required only if you are using the Active Directory authentication. You can use the Active Directory authentication to initialize the Mart and to log in to erwin Mart Administrator.

#### **Enable SSL/Wallet**

Specifies whether SSL or Wallet (in case of Oracle database) is enabled. If you select this check box for Oracle database, the following fields are enabled:

- Oracle Wallet Location: Specifies the location where you downloaded the wallet file.
- Oracle Wallet Password: Specifies the password that you set for the wallet.

#### **Domain Controller Name**

Specifies the fully qualified name of the Active Directory Server (Domain Controller). Enter the name in the following format:

LDAP://server/distinguished-name

**Example:** Idap://mktgna:3268/dc=abc, dc=com

Here, mktgna is the server name. You can provide either the name of the server or the IP address. 3268 is the port number to which the server listens.

dc=abc, dc=com is the distinguished-name. The distinguished name is the full path of the object.



## **Domain/User Name**

Specifies the domain name and user name in the <domain name>/<user name> format.

#### **Domain Password**

Specifies the password of the domain user.

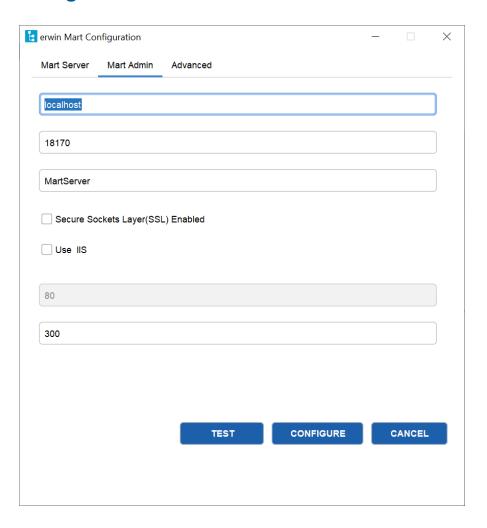
To validate connection for active directory, click **Test**.

You can also configure erwin Mart Server using the Command Line Interface. For example, use the following command to configure Mart Server with an Oracle database:

```
C:\Program Files\erwin\Mart Server r9\OpenJRE64\bin>java.exe
-jar
 "C:\Program Files\erwin\Mart Server r9\MartUp-
grade\MartConfiguration.jar"
 configure --dbuser=mmadmin --dbpwd=mmadmin --dbtype=ORACLE
 --dcname=ldap://10.1.85.94:3268/DC=test-ga,DC=com --
martusessl=true
 --domainuser=test-qa\Administrator --domainpwd=interOP@123
 --dbserver=10.1.85.108 --dbport=1521 --dbinstance=
--dbname=mart200models
```

Once you run the above command, you can verify the configuration properties in the MartConfiguration.properties file located at C:\ProgramData\erwin\Mart Server. The same properties also reflect on the Mart Server tab of the erwin Mart Configuration dialog box.

## **Configure erwin Mart Administrator**



1. Enter the following information in the Mart Administrator tab:

## **Server Name**

Specifies the name of the computer where the Web Server is present. For example, if you are using Tomcat, enter the name of the computer where Tomcat is installed.

**Default:** localhost

#### **Port Number**

Specifies the port number on which the Web Server is running.

**Default: 18170** 

#### **Application Name**

Specifies the application name with which the Web Server is identified.

**Default:** MartServer

## Secure Sockets Layer (SSL) Enabled

Specifies whether you want to connect to the Mart through a secured connection (SSL). Select this check box if you have implemented SSL.

If you use IIS with SSL, open server ssl.xml file, which is available at C:\Program Files\erwin\Mart Server r9\Tomcat64\conf and uncomment Connector port="8009" protocol="AJP/1.3" allowedRequestAttributesPattern=".\*" redirectPort="8443" secretRequired="false"/>.

Using a self-signed SSL certificate might result in an error about certificate authority while connecting to erwin Mart. In that case, click OK to continue connecting to erwin Mart.

#### **Use IIS**

Specifies whether IIS is used to run Mart Administrator. Select this check box only if you have configured IIS.

If you use IIS, open server.xml file available at C:\Program Files\erwin\Mart Server r9\Tomcat64\conf and un-comment <Connector port="8009" protocol="AJP/1.3" allowedRequestAttributesPattern=".\*" redirectPort="8443" secretRequired="false"/>.

**IIS Port** 

Specify the IIS port number that you want to use. This field is enabled only if you select the Use IIS check box. The default is 80.

#### Account Lockout Duration (Seconds)

Specify the duration (in seconds) for which an account should be locked whenever an incorrect password is entered five consecutive times. By default, it is set to five minutes (300 seconds). At the most, you can set it to 30 days (2592000 seconds).

## 2. Click Configure.

The erwin Mart Administrator and the Mart Server are configured.

## **Enable SSL for Tomcat**

SSL enables you to access the Mart through a secured connection. You can enable SSL for Tomcat--the default web server, when you are installing the Mart for the first time.

### Follow these steps:

- 1. If the Mart Server service is running, stop it. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, Stop MartServer Service to stop the web server.
- 2. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, Enable SSL for Tomcat Webserver.
  - SSL is enabled for Tomcat and a security certificate is created. You must install this security certificate on all the computers from where you want to access the Mart.
- 3. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, Configure MartServer.
  - The erwin Mart Configuration dialog appears.
- 4. Go to the Mart Administrator tab and select the Transport Layer Security check box.
- From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, Start Mart Server Service.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, erwin Mart Administrator 12.1.

The erwin Mart Administrator home page appears and displays HTTPS in the address bar. If a certificate error appears, click Proceed Anyway to begin the session.

Important! If you want to connect to an SSL enabled Mart through API, you must first install the security certificate on the corresponding computer. Install the certificate through the data modeling tool. If you do not install the security certificate, the API will not be able to connect to the SSL enabled Mart.

Disable SSL and Access the Mart Through a Normal Connection

You can disable SSL at any time and access the Mart through a normal connection.

#### Follow these steps:

- 1. If the Mart Server Service is running, stop it. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, Stop Mart Server Service.
- 2. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, Disable SSL.
- 3. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, Configure MartServer.
  - The erwin Mart Configuration dialog appears.
- 4. Go to the Mart Administrator tab and clear the Transport Layer Security check box.
- 5. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, Start Mart Server Service.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, erwin Mart Administrator 12.1.

The erwin Mart Administrator home page appears and displays HTTP in the address bar.

## **Use Mart Server as a Windows Service**

The current version of the Mart provides two ways to start the web server that hosts Mart Server:

- Start the web server manually.
- Use a Windows service to start the web server.

For example, if you have used Tomcat as the web server to host Mart Server, you can start Tomcat in two ways:

- Start Tomcat through the startup.bat file or through a shortcut to this file.
- Use a Windows service to start Tomcat.

The benefits of using a Windows service to start a web server are as follows:

- Any user with administrative privileges on a computer can start the Windows service, whereas, only designated users can start a web server manually.
- A Windows service runs regardless of whether a user has logged in. A manually-started web server shuts down when the user who started it logs out.

## Follow these steps:

- 1. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, Create MartServer Service to create the MartServer Windows service.
  - Creating the service is a one-time task. After the service is created, you only have to start and stop the service.
- 2. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, Start MartServer Service to start the web server.

You can find the log file, application.log, at C:\Windows\System32\config\systemprofile\AppData\Local\erwin\Mart Server\logs\.

## **Enable Logging in Local AppData**

To enable logging in a user's AppData while using Mart Server as a Windows Service, do the following:

## **Use Mart Server as a Windows Service**

- 1. Once the service is created, go to service properties.
- 2. On the Log On tab, click **This Account**.
- 3. Enter the credentials.
- 4. Start the service.

Logging is now enabled for your instance of Mart Server as a Windows service. The log file, application.log, will be created at {user account}/AppData/Local/erwin/Mart Server/logs.

## **Initializing the Mart**

When you access the Mart database through erwin Mart Administrator for the first time, you must initialize the database. You can initialize the database using a database authenticated user or a Windows-authenticated user.



Before you proceed, verify that you have installed a DBMS, created the Mart database and run the initial queries. If the Mart is already initialized, the Login page appears.

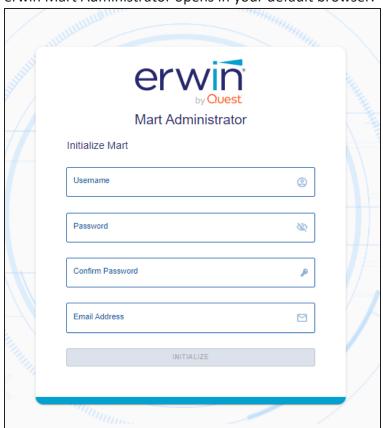
When you open erwin Mart Administrator for the first time, the Initialize Mart web page appears.

## Follow these steps:

1. If you are using MartServer as a Windows service, ensure that the service is started. If not, from the Windows Start menu, click erwin > Start Mart Server to start the Mart Server.

A Windows command prompt window appears and indicates when the server starts.

2. From the Windows Start menu, click erwin > erwin Mart Administrator 12.1. erwin Mart Administrator opens in your default browser.



3. Complete the following fields:

#### Username

Defines the user name with which you want to access the Mart. If you are using a Windows-authenticated user, enter the name in the <domain name>/<user name> format.

## **Password**

Defines the password for the user name.

A password should fulfill the following criteria:

- Contains at least 1 lowercase character
- Contains at least 1 uppercase character



- Contains at least 1 number
- Is minimum 6 characters in length
- Is maximum 130 characters in length

Apart from the above criteria, special characters are optional.

#### **Confirm Password**

Confirms the password that you entered in the previous field.

#### **Email Address**

Defines the email address for the user account that you are creating.

#### 4. Click Initialize.

The user name is added as an administrator of Mart, Mart is initialized, and the Login web page appears. Initializing is a one-time task. After Mart is initialized, the user who initialized must log in first. Later, any other user who wants to use erwin Mart Administrator can log in.



The user name that is entered here is an application level user and not a database user. Remember the password that you have entered here, because without the password you cannot log in to erwin Mart Administrator for the first time.

In the previous releases, only a server user was allowed to initialize a Mart. From release r9.6, a Windows-authenticated user can also initialize a Mart. Further, a Windows-authenticated user can log in to a Mart as a Windows user.

#### To initialize a Mart with a Windows-authenticated user, follow these steps:

1. Provide the Active Directory details with user credentials in the Active Directory Details section in the erwin Mart Configuration dialog.

2. Open erwin Mart Administrator, enter the user name in the <domain name>/<user name> format. For more information about how to initialize a Mart, see the Workgroup Edition Implementation and Administration Guide.

#### To log in as a Windows-authenticated user, follow these steps:

This procedure describes how to enable a Windows-authenticated user log in to a Mart that is already initialized. Use this procedure if the Mart is initialized with either a server user or a Windows-authenticated user.

- 1. Ensure that you have provided the Active Directory details with user credentials in the Active Directory Details section in the erwin Mart Configuration dialog.
- 2. Log in to the Mart as an administrator and add the required user as a Windows user in the Mart. Ensure that the user belongs to the Active Directory that was provided at the time of configuring the Mart.

Now the Windows-authenticated user can log in to erwin Mart Administrator by providing the user name in the <domain name>/<user name> format.



A local Windows user who does not belong to a domain or who is not part of an Active Directory cannot log in to the Mart as a Windows user.

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## Log In to erwin Mart Administrator and Configure Settings

After the Mart is initialized, the user who initialized must log in first.



If you enter an incorrect password five consecutive times, your account will be locked for five minutes (300 seconds) by default. You can change the time for which the account stays locked as follows:

- 1. From Windows Start menu, click All Programs, erwin, Mart Server 12.1, Configure MartServer.
  - The erwin Mart Configuration dialog appears.
- 2. On the Mart Administrator tab, edit the value of the Account Lockout Duration (Seconds) field to an appropriate value. At the most, you can set it to 30 days (2592000 seconds).

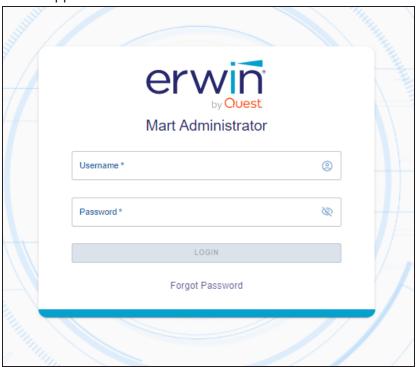
When you log in to Mart for the first time, configure it per the requirements of your organization. You can configure the following settings:

- Default profile for the model creator
- Use default password
- **Email notification**

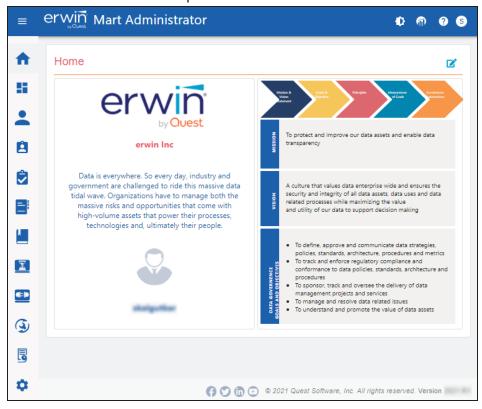
## Follow these steps:

1. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 12.1, erwin Mart Administrator 12.1.

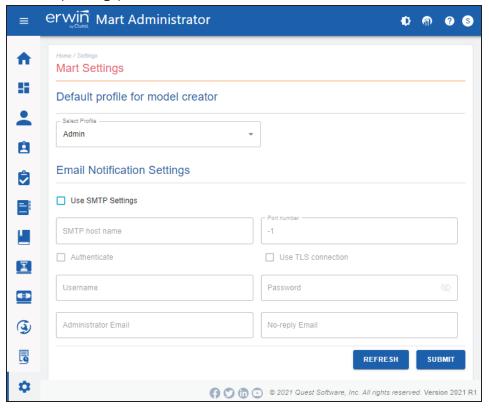
The erwin Mart Administrator home page appears. If you have implemented SSL, HTTPS appears in the address bar.



2. Use the credentials with which you initialized the Mart and log in. erwin Mart Administrator opens.



3. Click (Settings).



## 4. Complete the following fields:

## Default profile for model creator

Specifies the profile that is assigned to a user on a model. This profile is assigned whenever a user creates a model and saves it to Mart for the first time. The user inherits the permissions of the default profile selected here on the model that is saved. For example, suppose that User1 is assigned with Modeler profile and the System Administrator selects Architect as the default profile for model creator. If User1 creates Model1 and saves it to Mart, for Model1, User1 inherits the permissions of Architect. Now, suppose that the System Administrator selects Viewer as the default profile for model creator, and suppose that User1 creates Model2 and saves it to Mart. For Model2, User1 inherits the permissions of Viewer.

#### SMTP host name

Specifies the name of the SMTP host. Enter the name in the mail.domain.com format. Notification emails are sent from this server.

#### Port number

Specifies the port number of the SMTP server. The default port number is 25. If your company is using an alternate port number for the mail server, specify that port number.

#### **Authenticate**

Specifies whether transactions with the SMTP server are authenticated. Select the check box to authenticate.

#### User name

Specifies the user name to authenticate the SMTP server. Select the Authenticate check box to enable authentication.

#### **Password**

Specifies the password to authenticate the SMTP server. Select the Authenticate check box to enable authentication.

#### Administrator email

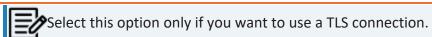
Specifies the email ID of the Mart administrator. Notifications to Mart users are sent from this ID.

## No-reply email from

Specifies the email ID from which administrative emails such as the password reset email are sent.

#### Use TLS Connection

Specifies whether transactions with the SMTP server use a Transport layer Security (TLS). If you intend to use a TLS connection, ensure that the User name and Administrator email correspond to each other.



#### 5. Click Save.

Mart options are configured.

You have installed and configured erwin DM Mart.



If SMTP server is not configured, an Administrator can reset a user's password manually via the Users Page. On the Users page, select a user and click

Enter a new password and click Submit.

## **Use a Pluggable Database**

This information applies to Oracle 12c.

You can use the pluggable database concept of Oracle 12c and create multiple Marts of the same Mart release in a single Oracle instance. For example, you can create two pluggable databases erwin test and erwin production in an Oracle global database erwin. You can configure these databases with the Mart Server one after the other and connect to one of them at a time.

## Follow these steps to use multiple pluggable databases:

- 1. Create multiple pluggable databases, for example, erwin\_test and erwin\_production.
- 2. Install erwin Mart Server for the first pluggable database, for example, erwin\_test.
- 3. Initialize the Mart for the first pluggable database, erwin\_test. For more information on how to initialize the Mart, see the Initialize an Oracle Mart topic.
- 4. Log in to the Mart and create the models that you want to store in the test Mart.
- 5. To use the second pluggable database, follow these steps:
  - a. Stop the Mart server or the Mart server service.
  - b. Repeat Steps 1, 2, and 3 for the second pluggable database, erwin production.
  - c. Start the Mart server or the Mart server service.
  - d. Log in to the Mart and create the models as required.