

erwin Mart Server

Release Notes

Release 2019 R1

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New Features and Enhancements in erwin Mart Server

The following new enhancement has been implemented in the current release of the erwin Mart Server.

Log Management

A new feature, Log Management has been introduced. It lets you clear erwin Mart usage logs.

Reporting

Mart-level reporting now includes Naming Standard report and User Logs report.

Performance Enhancements

Following performance enhancements have been made:

- LDAP log-in experience has been improved.
- Mart report sync time has been improved. For example, for a 10 Customer model, with total mart size 650 MB, earlier it used to take approximately 30 hours to sync. Whereas, now, it takes approximately 5 hours.

SQL Server Support

erwin Mart Server is now certified to work with SQL Server 2017.

PostgreSQL Support

erwin Mart Server is now certified to work with PostgreSQL v9.6.12, v10.7, and v11.2.

Third Party Tools

Support for third-party tools has been upgraded as follows:

Tomcat has been upgraded from v9.0.5 to v9.0.14.

Mart Server 64-bit now uses Oracle OpenJDK v11.0.2.
 Note: For Mart Server 32-bit, install Oracle (Sun) JRE V1.8.0_172 or higher and then set the JRE_HOME Environment Variable.

Character Limitations

There is a limitation on the number of characters you can use for certain Mart Server parameters. The following table gives information about such parameters:

Para- meter/Field	Character Limitation	
User Name	450 (Server User, Windows User, and Group)	
	Note : For international OS (I18N), if the character set being used is DBCS (Double byte Character Set) then the character limit is 225.	
Password	130	
Email Address	130	
Profile Name	130	
Profile Descrip- tion	2000	
Catalog Name	255	
Catalog Description	4000	

Mart Server Version Validation

From erwin Data Modeler (DM) and erwin Mart Server (MS) 2019R1 onward, while connecting to the erwin MS from erwin DM, version validation has been implemented as follows:

- 1. Connecting from erwin DM 2019R1 to erwin MS lower than 2019R1 is not allowed.
- 2. Connecting from erwin DM lower than 2019R1 to erwin MS 2019R1 is not allowed.

Install and Configure an Oracle Mart

This section describes how you can install and configure a Mart on an Oracle database.

This section contains the following topics

How to Install and Configure an Oracle Mart

How to Upgrade any r9 Series Mart to the Current Version

Change the Mart Database Server

Troubleshooting

How to Install and Configure an Oracle Mart

In the previous versions, erwin DM connected to the Mart database through the database client software. Now, the application connects to the Mart database through a web server. The database client software is no longer required.

The Mart comprises the following components:

Database

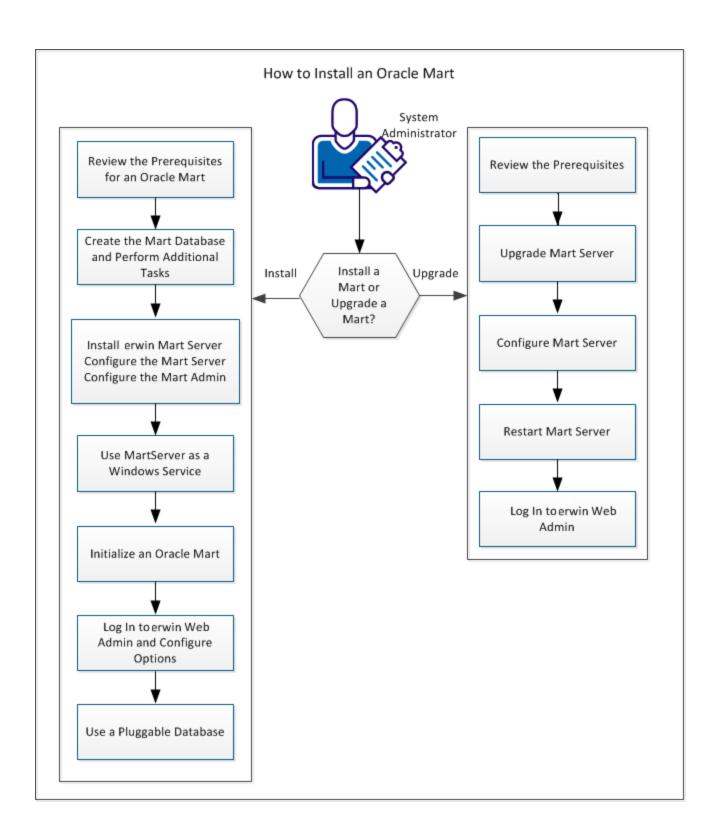
Stores the user data for the Workgroup Edition. You can use an Oracle 10g, 11g, 12c, or the certified version 12c R2 database for the Mart database. If you are using Oracle 12c, you can use a pluggable database. You must use a new database and not an existing database that was created for an older version of the data modeling tool.

Applications

Includes a web-based component named 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.



Complete the following steps in the same order to install and configure the Mart:

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

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Mart Architecture

In the previous versions, erwin DM connected to the Mart database through the database client software. Now, the application connects to the Mart database through a web server. The database client software is no longer required. The web server includes a web-based administration console erwin Mart Administrator. If you are using the Workgroup Edition, you must install and configure erwin Mart Administrator.

The Mart comprises the following components:

Database

Stores the user data for the Workgroup Edition. You can use an Oracle 10g, 11g, 12c, or the certified version 12c R2 database for the Mart database. If you are using Oracle 12c, you can use a pluggable database. You must use a new database and not an existing database that was created for an older version of the data modeling tool.

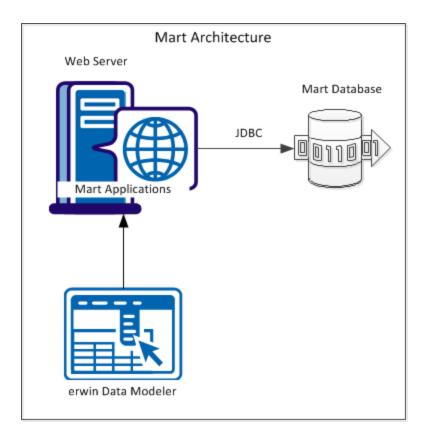
Applications

Includes a web-based component named 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.

The following diagram shows the new architecture:



The new architecture has the following benefits:

- Separate logical and physical users: In the previous versions, Mart (or Model Manager) users required database level privileges to access the Mart functionality. The Mart database administrators added or deleted users in the Mart database. This approach is changed now. The logical users are separated from physical users, so Mart Administrators can create the Mart users without creating the corresponding database users.
- Authentication through Active Directory services: Earlier, if you wanted to provide access to a user group, you added each user individually. Now, because of the new architecture, you can use the Active Directory services and can provide access to the group. Anyone who is part of the group gets access.
- Mart administration outside erwin Data Modeler: In the previous versions, Mart Administrators used erwin Data Modeler for administrative activities such as managing permissions. This required non-modelers to know how to use erwin Data

Modeler. In the new architecture, the administration component is built on a separate layer on top of erwin Data Modeler and is hosted on a web server. Mart Administrators can access erwin Web Admin from any computer and can perform administrative activities through a web console.

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Install a Mart or Upgrade a Mart?

Use the following guidelines to determine if you must install a Mart or upgrade a Mart:

- If you are new to erwin Data Modeler and have purchased the current version of Workgroup Edition, then install the current version of the Mart. Use the How to Install and Configure a Mart procedure that is appropriate for your Mart database.
- If you have any earlier release of r9 series Mart, then upgrade the Mart to the current version. Use the How to Upgrade any r9 Series Mart to the Current Version procedure to upgrade your Mart. The models that are created in any earlier release of r9 series are upgraded when a user connects to the current version Mart and opens the models.
- If you have an existing Mart and the version is r7.3 through r8.2.9, install the current version Mart. Use the How to Install and Configure a Mart procedure that is appropriate for your Mart database. After installing the Mart, use the Upgrade Mart utility to upgrade the Mart models from r7.3 through r8.2.9 to the current version.

Review the Prerequisites for an Oracle Mart

Before you install the Mart components, help 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):

- 2 GHZ or higher dual core processor
- 4 GB RAM (8 GB or more for large marts)
- 4 GB of disk space or more as required to support your specific mart

Operating system:

- Microsoft Windows 7 SP1
- Microsoft Windows 8.1
- Microsoft Windows 10

- Microsoft Windows Server 2008 R2 SP1
- Microsoft Windows Server 2012, R2
- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- 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 an Oracle 10g, 11g, 12c, or the certified version 12c R2 database. If you are using Oracle 12c, you can use a pluggable database.
- To create the Mart, you must be the database schema owner user and you must have the DBA role in the target database on the Oracle server. The DBA role is required for the user who is specified in the Configure MartServer dialog. If the DBA privilege of this user is revoked, then erwin DM users will not be able to save model changes to the Mart.
- (Optional) You have modified the following parameters in the initialization file (InitSID.ora):

```
Remote_OS_Authent=T
OS Authent Prefix=TRUE
```

 (Optional) To use the Korean language with the Mart database, use KO16MSWIN949 or AL32UTF8 character set depending on your operating system language pack. For more information, see the Oracle documentation.

erwin Mart Administrator web client:

Supported browsers:

- Microsoft Internet Explorer v10 or newer
- Mozilla Firefox v30 or newer
- Google Chrome v30 or newer
- Apple Safari 6 or newer

Note: 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 queries 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.

Note: 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

- 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. **^**Back to Top

Create the Mart Database and Perform the Additional Tasks

Perform the following setup tasks in your DBMS environment before you can install and use the software:

- 1. Install the DBMS on the server where you plan to store the Mart.
 - Help ensure that you can create tables, indexes, stored procedures, and public synonyms. For more information about memory and disk space requirements, see the system requirements for each DBMS (Microsoft SQL Server, SAP ASE, PostgreSQL, and Oracle).
- 2. Create a database that you want to use as the Mart. To use a pluggable database, see the Use a Pluggable Database topic.
 - Use the DBMS features to create or identify the required storage objects and the mart. The specific requirements vary depending on your DBMS type.

Note: To create, update, or delete a Mart in erwin Data Modeler Workgroup Edition, you must be the database schema owner and you must have the DBA role.

Additional Tasks

The DBA and the system administrator responsible for installing the software on an Oracle database management system performs these tasks.

Use graphical tools or SQL *Plus (all versions), SQL*DBA, or the Oracle Enterprise Management Console to perform these tasks. Some SQL commands are included where appropriate. The Data file paths, data file sizes, role names, and user names are included as examples only.

1. Check the SYSTEM tablespace.

The installation creates several stored procedures. All triggers, stored procedures, and packages are kept in the Oracle SYSTEM tablespace. The standard size of the SYSTEM tablespace assumes that you are not using procedural options, so the SYSTEM tablespace must be often expanded. If other Oracle applications are not using procedural code, then expand the SYSTEM tablespace to 32 MB. If other Oracle applications also use procedural code, expand the SYSTEM tablespace to at least 32 MB.

2. Check the Rollback Segment tablespace.

If your instance uses UNDO tablespace, do not create rollback segments.

Significant rollback space is required for installing and use. The rollback segments must be in their own separate tablespace and each have at least 16 MB of available space. There must be one rollback segment for every four concurrent users, with a maximum of 50 rollback segments. The available space must scale upward with increasing numbers of rollback segments. Finally, the rollback segment optimal parameter must be set to control rollback segment growth and space consumption.

Note: For Steps 3, 4, and 5, use the Dictionary-managed tablespaces.

3. Create a data tablespace of at least 32 MB.

For example:

CREATE TABLESPACE MyMart

DATAFILE '/db01/oracle/rdbms9i/data/mymart.ora' SIZE 100M;

Or For Locally Managed extents:

CREATE TABLESPACE Mymart

DATAFILE '/db01/oracle/rdbms9i/data/mymart.ora' SIZE 100M

DATAFILE '/db01/oracle/rdbms9i/data/mymart.ora' SIZE 100M EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;

4. Create an index tablespace of at least 32 MB.

For example:

CREATE TABLESPACE MMARTINDEX

DATAFILE '/db02/oracle/rdbms9i/data/mmartindex.ora' SIZE 75M;

Or For Locally Managed extents:

CREATE TABLESPACE MMARTINDEX

DATAFILE '/db02/oracle/rdbms9i/data/mmartindex.ora' SIZE 75M EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;

5. Create a temporary tablespace.

For example:

```
CREATE TEMPORARY TABLESPACE MMTEMP TEMPFILE '/db03/or-acle/rdbms9i/data/mmarttemp.ora' SIZE 50M;
Or For Locally Managed extents:
```

CREATE TEMPORARY TABLESPACE MMTEMP TEMPFILE '/db03/or-acle/rdbms9i/data/mmarttemp.ora' SIZE 50M

EXTENT MANAGEMENT LOCAL UNIFORM SIZE 1M;

Note: For more details about syntax and options regarding tablespace creation, see the appropriate Oracle documentation.

6. Create an Oracle user with DBA privileges for use by the erwin Data Modeler Work-group Edition Installer or designated schema owner.

Assign the data tablespace to this user as the default tablespace, and the temporary tablespace as the temporary tablespace to the user.

For example:

```
CREATE USER STEVE IDENTIFIED BY STEVE
DEFAULT TABLESPACE MyMart
TEMPORARY TABLESPACE MMTEMP
QUOTA UNLIMITED ON MyMart
QUOTA UNLIMITED ON MMARTINDEX;
GRANT DBA TO STEVE;
```

7. Create the erwin Data Modeler Workgroup Edition Installer role.

The following example is the role that the Oracle user requires to install erwin Data Modeler Workgroup Edition.

CREATE ROLE MMINSTALL;

8. Grant the Oracle privileges to the Installer role.

The following example shows the Oracle privileges that the erwin Data Modeler Work-group Edition Installer must install on Oracle. For the last command, log in as sys with the sysdba role in the user-name or the command will fail.

```
grant create sequence to MMINSTALL;
grant create table to MMINSTALL;
grant create view to MMINSTALL;
grant drop public synonym to MMINSTALL;
grant create public synonym to MMINSTALL;
grant create procedure to MMINSTALL;
grant select on dba_data_files to MMINSTALL;
grant create session to MMINSTALL;
```

Note: To use the database, an Oracle user needs only the create session privilege.

9. Select the erwin Data Modeler Workgroup Edition tablespaces and Installer role.

When prompted for tablespace and role information, select the Workgroup Edition data tablespace, the Workgroup Edition index tablespace, and the Workgroup Edition Installer role.

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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 2019 R1 Installation Wizard. You must install erwin Mart Server and configure it regardless of whether you use Mart Server as a Windows service.

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

Follow these steps:

- 1. Download the EDMMS2019R1(32-bit or 64-bit).exe file from the online erwin product page and run it.
- 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.

Note: For Mart Server 32-bit, install Oracle (Sun) JRE V1.8.0_172 or higher and then set the JRE HOME Environment Variable.

3. From the Windows Start menu, click All Programs, erwin, Mart Server 2019 R1(32-bit or 64-bit), Configure MartServer.

The erwin Mart Configuration dialog appears.

Configure the erwin Mart Server

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

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 data-

base. 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.

Note: 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 upgrad-

ing the Mart from any earlier release of r9 series to the latest release, use the cor-

responding 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.

Note: Windows authentication (User Name field) is not supported for connecting to

the Mart database from the Configure Mart Server window.

Password

Specifies the password to connect to the Mart database.

Note: The following fields--Domain Controller Name, Domain/User Name, and Pass-

word 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.

Domain Controller Name

Specifies the fully qualified name of the Active Directory Server (Domain Con-

troller). Enter the name in the following format:

LDAP://server/distinguished-name

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

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Here, mktqna 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.

Note: If you do not know the Domain Controller Name, use the NItest command or talk to your System Administrator.

Domain/User Name

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

Password

Specifies the password of the domain user.

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

Transport Layer Security

Specifies if you want to connect to the Mart through a secured connection (SSL).

Select this check box if you have implemented SSL.

Hosting Server

Specifies that you want to use the IIS web server to connect to the Mart. Select this check box only if you have configured IIS.

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.

More information:

Configure IIS Web Server
Implement SSL for IIS

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 2019 R1(32-bit or 64-bit), Stop MartServer Service to stop the web server.
- 2. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), Configure MartServer.
 - The erwin Mart Configuration dialog appears.
- 4. Go to the Mart Administrator tab and select the Transport Layer Security check box.
- 5. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), Start Mart Server Service.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - 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 or the Mart Upgrade utility, 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 Mart Upgrade utility and 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 2019 R1(32-bit or 64-bit), Stop Mart Server Service.
- 2. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), Disable SSL.
- 3. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), Start Mart Server Service.

6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).

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:

- From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), Start MartServer Service to start the web server.

Enable Logging

To enable logging while using Mart Server as a Windows Service, do the following:

- 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.

Initialize an Oracle 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.

Note: 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, help ensure that the service is started. If not, from the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1(32-bit or 64-bit), 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 All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - 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.

Note: 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.

Mart Role

Defines the role of the user for the Mart.

Table Tablespace

Defines the table tablespace in which the Mart tables are created.

Index Tablespace

Defines the index tablespace in which the Mart indexes are created.

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.

Note: 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:

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

Note: 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.

Note: 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 2019 R1(32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).

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.
- 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.

Use Default Password

Specifies the default password that you want to use for new users and for resetting passwords, in the absence of an SMTP server for emails.

Note: Select this option only if you do not have an SMTP server that is configured for emails.

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.

Note: Select this option only if you want to use a TLS connection.

5. Click Save.

Mart options are configured.

You have installed and configured erwin DM Mart.

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.

Create a Pluggable Database

You can use the pluggable database concept in Oracle 12c and create multiple Marts of the same Mart release.

Follow these steps:

1. Create a pluggable database in Oracle 12c.

For example, provide the Global Database Name as erwin and the Pluggable Database Name as erwin_test.

Note: For more information on how to create a pluggable database, see the Oracle documentation.

2. Run the following script on the computer where Oracle 12c is installed:

DROP TABLESPACE MMDATA INCLUDING CONTENTS AND DATAFILES CASCADE CONSTRAINTS;

DROP TABLESPACE MMINDEX INCLUDING CONTENTS AND DATAFILES CASCADE CONSTRAINTS;

DROP TABLESPACE marttemp INCLUDING CONTENTS AND DATAFILES CASCADE CONSTRAINTS;

ALTER SESSION SET CONTAINER=erwin test;

CREATE TABLESPACE MMDATA datafile 'c:\r9mart2\MMDATA.dbf' size 300m autoextend on;

CREATE TABLESPACE MMINDEX datafile 'c:\r9mart2\MMINDEX.dbf' size 300m autoextend on;

CREATE TEMPORARY TABLESPACE marttemp tempfile 'c:\r9-mart2\tempdata.dbf' size 300m autoextend on;

DROP USER MMADMIN CASCADE;

CREATE USER MMADMIN IDENTIFIED BY MMADMIN DEFAULT TABLESPACE MMDATA TEMPORARY TABLESPACE MARTTEMP QUOTA UNLIMITED ON MMDATA QUOTA UNLIMITED ON MMINDEX;

DROP ROLE MMINSTALL;

CREATE ROLE MMINSTALL;

GRANT CREATE SEQUENCE TO MMINSTALL;

GRANT CREATE TABLE TO MMINSTALL;

GRANT CREATE VIEW TO MMINSTALL;

GRANT DROP PUBLIC SYNONYM TO MMINSTALL;

GRANT CREATE PUBLIC SYNONYM TO MMINSTALL;

GRANT CREATE PROCEDURE TO MMINSTALL;

GRANT CREATE SESSION TO MMINSTALL;

GRANT MMINSTALL TO MMADMIN;

GRANT DBA TO MMADMIN;

Install erwin Mart Server with a Pluggable Database

The procedure to install erwin Mart Server for a pluggable database is same as the procedure for a normal database. This topic describes only those fields that need different values for a pluggable database. For more information on how to configure the erwin Mart Server, see the Install erwin Mart Server topic.

The following fields on the Configure the erwin Mart Server dialog need different values:

Server Name

Specifies the name of the database server where you have installed the Mart database. Enter the name of the computer where Oracle 12c is installed and the pluggable database erwin test is created.

Database Name

Specifies the name of the pluggable Mart database. For example, erwin test.

User Name

Specifies the user name to connect to the Mart database. Enter mmadmin or any other user account that you have created when you ran the script.

Password

Specifies the password to connect to the Mart database. Enter mmadmin or any other password that you have created when you ran the script.

Change the Mart Database Server

Sometimes, you may change the server on which the Mart database is installed, or you may restore the Mart database with a new name. When there is a change the server name or database name, reconfigure the MartServer.

Follow these steps:

- 1. Back up your Mart database.
- 2. Restore the database on the designated server.
- 3. If you use the same computer for Mart Server and restore the database in a different name, include the new database name in the erwin Mart Configuration dialog.
 - From the Windows Start menu, open the erwin Mart Configuration dialog. In the Mart Server tab, Database Name field, enter the new name with which the database is restored. Enter the current user name and password to access the database. If wrong information is provided here, you may be able to install the Mart, but you cannot log in and cannot use it.
- 4. If you use a different computer for Mart Server and restore the database in the same name, install the Mart Server on the new computer.
 - Use the Install erwin Mart Server procedure and install the Mart Server. In the Mart Server tab, Server Name field, enter the name of the new server where the database is restored. Enter the current user name and password to access the database. If wrong information is provided here, you may be able to install the Mart, but you cannot log in and cannot use it.
- 5. Stop the MartServer service and start it again.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - Enter the credentials of the Mart administrator and log in.

Troubleshooting

This section explains the errors that you can encounter while installing and configuring Mart, and how you can troubleshoot them.

Note: The Mart Server log files are available in the following location:

```
Windows 7: {user.home}/AppData/Local/erwin/Mart Server-
/logs/application.log
```

The latest version of Apache Tomcat does not support custom authorization-related error messages. Hence, a generic error message, "Unauthorized operation attempted. For more information, please review the log file.", is displayed. To understand the cause of the error, review the application.log file, which contains the description of the cause. Following is one such sample from the application.log file:

ERROR exception.MMException.setException: java.lang.Exception: User "johndoe" does not have required "View Users" permission on "User Management". Please contact the Mart Administrator for required permission.

Unable to Create MartServer Service

Symptom:

If Mart Server is upgraded to the latest version without stopping and deleting the Mart Server service of the earlier version, creating a new Mart Server service does not work.

Solution:

Run the *sc Delete MartServer* command to delete the Mart Server Service from command prompt and then try to create a Mart Server Service in the new version.

Port out of range

Symptom:

Whenever I connect to the web server, I get the following error message:

```
java.lang.IllegalArgumentException: port out of range 80821.
```

Solution:

Type the correct port number in the Configure erwin Mart Administrator s Server dialog and then restart your web server.

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Call failed on the server

Symptom:

When I try to connect to the Mart server, I get the following error:

500 The call failed on the server; see server log for details

Solution:

The probable reasons for this error could be one of the following reasons:

- The server name is not correct.
- The application name is not correct. By default, the application name is MartServer and it is case-sensitive.

Type the correct server name and application name in the erwin Mart Administrator s Server dialog and the Configure MartServer Details dialog. Restart the web server.

Application Internal Error

Symptom:

When I try to connect to the database, I get the following error:

Application Internal Error

Solution

You get this error when the MartServer application is unable to connect to the required database. The following reasons are probable for this error:

- The database details that are provided in the Configure MartServer Details dialog are incorrect.
- The username and the password for the database are incorrect.
- The database is not present.

- The port number for the database is incorrect.
- The network is down.

Ensure that you enter the correct details of your database in the Mart Server tab of the erwin Mart Configuration dialog.

ORA-12514 TNS listener does not currently know of service requested in connect descriptor

Symptom:

When I try to open the erwin Mart Administrator page, I get the Application Internal Error. The Tomcat windows shows the following error message:

ORA-12514, TNS: listener does not currently know of service requested in connect descriptor

Solution:

Use a fully qualified instance name when starting the Mart Server.

Mart already exists. Specify another database name

Symptom:

When I try to connect to the Mart, I get the following error message:

An earlier mart is already present in the database you are trying to initialize. This process can not be continued. Please specify another database name to continue.

Solution:

You get this error when you connect to an old Mart that you have used for erwin DM Release r7 series, r8 series, or Beta release of any r9 series release.

Create a database and provide its details in the Configure MartServer Details dialog.

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Initialize page is not loading in Internet Explorer

Symptom:

When I type the URL to initialize my Mart in Internet Explorer, the Initialize Mart page is taking a long time to load.

Solution:

The Initialize Mart page does not load because the Active Scripting option in Internet Explorer is disabled.

To enable Active Scripting, follow these steps:

- 1. In Internet Explorer, click Tools, Internet Options.
- 2. In the Security tab, click the Custom Level button.

The Security Settings Local Intranet Zone window opens.

- 3. From the list of options, locate Scripting, Active Scripting, and select Enable. Click OK.
- Restart Internet Explorer and enter the URL to initialize Mart.
 The Mart Initialize page opens.

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The Tomcat server is not starting properly. The Configure button is disabled.

Symptom:

My administrator has given me the Administrator rights and when I start the Tomcat server, I get a series of errors. Also, I cannot click the Configure button in the configuration dialog because it is disabled.

Solution:

Right-click Start Server, and click Run as Administrator.

The Tomcat server starts without any error, and the configuration button is enabled.

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A connection with the server could not be established

Symptom:

When I try to connect to the web server from erwin Data Modeler, I get the following error message:

A connection with the server could not be established

Solution:

Verify that you have provided the correct port number and then reconnect to the web server.

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The server name or address could not be resolved

Symptom:

When I try to connect to the web server from erwin Data Modeler, I get the following error message:

The server name or address could not be resolved

Solution:

Verify that the server name where the web server is installed is correct and then reconnect to the server.

Note: If erwin Data Modeler and the web server are installed on the same computer, you can give the server name as localhost. Suppose that erwin Data Modeler and the web server are installed on different computers. The server name is the name of the computer where the web server is installed.

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Invalid user ID or password

Symptom:

When I try to connect to the server, I get the following error message:

Invalid user ID or password. Please try again to login.

Solution:

Type the correct user name and password.

Note: The user must be an application level user and not a database user.

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Error 12029

Symptom:

When I connect to the web server, I get the following error message:

Error 12029

Solution:

Restart the web server.

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Unable to load the web page from my web browser

Symptom:

When I type the URL in Internet Explorer or Google Chrome to connect to the web server, I get the following error messages:

For Internet Explorer

Internet Explorer cannot display the webpage

For Google Chrome

Oops! Google Chrome could not connect to localhost:18170

Solution:

Restart the web server.

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Internet Explorer Redirects to a Different Link

Symptom:

Suppose that I install erwin Mart Server on a fresh machine. If I enable the SSL option and I invoke erwin Mart Administrator, Internet Explorer redirects the page to res://ieframe.dll//.

Solution:

Internet Explorer versions 8 through 10 have a security enhancement that blocks the following types of sites:

- Sites that have self-signed certificates
- Sites that have self-signed certificates where the certificate does not match the URL

Follow any of these steps:

- Install the certificate in the Trusted Root Certification Authorities store.
- Add the site to trusted sites.
- Set the Internet Explorer Security level to Medium Low.

I have a very long Windows user name and I cannot log in to the Mart through erwin Data Modeler

Symptom:

I have added a very long Windows user name similar to "Magdalena.Chalamalasetti" using the Mart Administrator. When the user tries to log in to the Mart through erwin Data Modeler, the name is truncated to "US\Magdalena.Chalamas" and the user cannot log in.

Solution:

The name is truncated due to a limitation with Windows. The Windows API returns the legacy user name that is limited to 20 characters. If the length of a user name exceeds 20 characters, for example, "US\Magdalena.Chalamalasetti", the name is displayed as "US\Magdalena.Chalamas" in the Connect to Mart dialog.

You can resolve this in one of the following ways:

- Type the first 20 characters of the user name when you add the user as a Windows User, in the Mart Administrator. For example, instead of typing "US\Magdalena.Chalamalasetti", type "US\Magdalena.Chalamalas".
- Use a Windows Group instead of the user's domain name. Using your Windows domain controller software, add the user to a Windows Group, and then add the group as a User Group in the Mart Administrator.

SSL Certificate Error

Symptom:

When you open Mart Administrator from Mart Server that is configured with an SSL certification, an SSL certificate error appears.

Solution:

1. Replace localhost in the Mart Server URL with your computer name.

https://localhost:12345/MartAdmin/

https://<computer_name>:12345/MartAdmin/

2. Use the updated URL to access the Mart Server

Unable to save a model to Mart with an existing model name

Symptom:

When you save a model to Mart with an existing model name, a dialog with the following text appears.

Model '<model name>' already exists in library '<mart name>'. Rename the new model name

Solution:

Save the model with a different name.

Install and Configure a PostgreSQL Mart

This section describes how you can install and configure a Mart on a PostgreSQL database.

This section contains the following topics

How to Install and Configure a PostgreSQL Mart

How to Install and Configure a PostgreSQL Mart

In the previous versions, erwin Data Modeler connected to the Mart server directly. Now, erwin Data Modeler connects to the Mart server through a web server.

The Mart comprises the following components:

Database

Stores the user data for the Workgroup Edition. You can use PostgreSQL through version 9.6.2 or either of the certified versions, 9.6.12, 10.7, and 11.2 database for the Mart database.

Applications

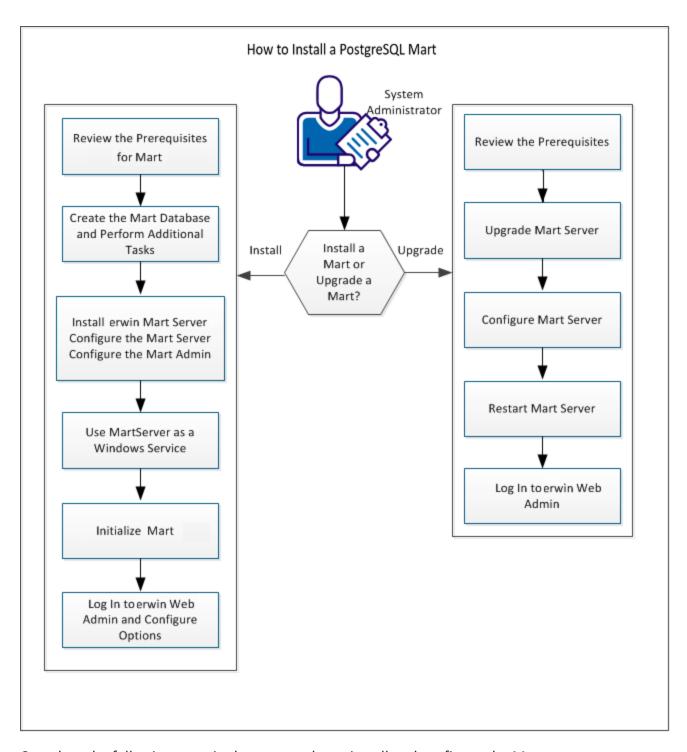
Includes a web-based component named erwin Mart Administrator that helps you manage the Mart through a web console.

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.

If you are using the Workgroup Edition, you must install and configure erwin Mart Administrator.

The following diagram illustrates how to install and configure a Mart:



Complete the following steps in the same order to install and configure the Mart:

- 1. Review the Prerequisites for a PostgreSQL Mart
- 2. Create a PostgreSQL Database
- 3. Install erwin Mart Server
- 4. Use Mart Server as a Windows Service
- 5. Initialize a PostgreSQL Mart
- 6. Log in to erwin Mart Administrator and configure settings

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Mart Architecture

In the previous versions, erwin DM connected to the Mart database through the database client software. Now, the application connects to the Mart database through a web server. The database client software is no longer required. The web server includes a web-based administration console erwin Mart Administrator. If you are using the Workgroup Edition, you must install and configure erwin Mart Administrator.

Database

Stores the user data for the Workgroup Edition. You can use a PostgreSQL through version 9.6.2 or either of the certified versions, 9.6.12, 10.7, and 11.2 database for the Mart database. You must use a new database and not an existing database that was created for an older version of the data modeling tool.

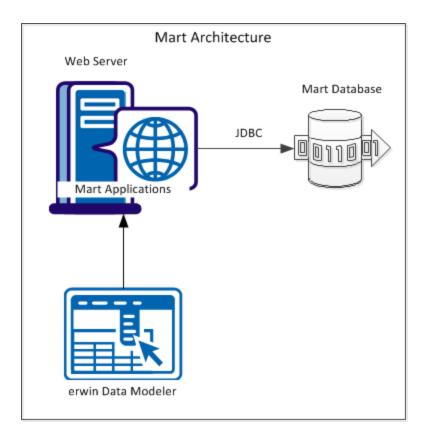
Applications

Includes a web-based component named 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.

The following diagram shows the new architecture:



The new architecture has the following benefits:

- Separate logical and physical users: In the previous versions, Mart (or Model Manager) users required database level privileges to access the Mart functionality. The Mart database administrators added or deleted users in the Mart database. This approach is changed now. The logical users are separated from physical users, so Mart Administrators can create the Mart users without creating the corresponding database users.
- Authentication through Active Directory services: Earlier, if you wanted to provide access to a user group, you added each user individually. Now, because of the new architecture, you can use the Active Directory services and can provide access to the group. Anyone who is part of the group gets access.
- Mart administration outside erwin Data Modeler: In the previous versions, Mart Administrators used erwin Data Modeler for administrative activities such as managing permissions. This required non-modelers to know how to use erwin Data

Modeler. In the new architecture, the administration component is built on a separate layer on top of erwin Data Modeler and is hosted on a web server. Mart Administrators can access erwin Web Admin from any computer and can perform administrative activities through a web console.

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Install a Mart or Upgrade a Mart?

Use the following guidelines to determine if you must install a Mart or upgrade a Mart:

- If you are new to erwin Data Modeler and have purchased the current version of Workgroup Edition, then install the current version of the Mart. Use the How to Install and Configure a Mart procedure that is appropriate for your Mart database.
- If you have any earlier release of r9 series Mart, then upgrade the Mart to the current version. Use the How to Upgrade any r9 Series Mart to the Current Version procedure to upgrade your Mart. The models that are created in any earlier release of r9 series are upgraded when a user connects to the current version Mart and opens the models.
- If you have an existing Mart and the version is r7.3 through r8.2.9, install the current version Mart. Use the How to Install and Configure a Mart procedure that is appropriate for your Mart database. After installing the Mart, use the Upgrade Mart utility to upgrade the Mart models from r7.3 through r8.2.9 to the current version.

Review the Prerequisites for a PostgreSQL Mart

Before you install the Mart components, help 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 to install 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):

- 2 GHZ or higher dual core processor
- 4 GB RAM (8 GB or more for large marts)
- 4 GB of disk space or more as required to support your specific mart

Operating system:

- Microsoft Windows 7 SP1
- Microsoft Windows 8.1
- Microsoft Windows 10

- Microsoft Windows Server 2008 R2 SP1
- Microsoft Windows Server 2012, R2
- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- 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 PostgreSQL through Release 9.6.2 database. Also, it is certified on PostgreSQL Release 9.6.12, 10.7, and 11.2.
- The database user account that is used to configure the Mart must have super user permissions.

erwin Mart Administrator web client:

Supported browsers:

- Microsoft Internet Explorer v10 or newer
- Mozilla Firefox v30 or newer
- Google Chrome v30 or newer
- Apple Safari 6 or newer

Note: Ensure that your screen resolution is 1024×768 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.

If you want to add Windows Group users as Mart users, you have the Active Directory Server details.

Note: 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

- 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.

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Create a PostgreSQL Database

If you are a DBA or a system administrator responsible for installing the software on a PostgreSQL database management system, perform the following tasks:

Use a graphical user interface (GUI) tool, pgAdmin III, to create the erwin Data Modeler Workgroup Edition database. If a GUI tool is not available, you can use SQL Shell to type in the appropriate commands manually.

Configure PostgreSQL:

You can configure PostgreSQL database to accept any IP address.

Follow these steps:

- 1. Set the IP address to 0.0.0.0/0
- 2. Select the server.
- 3. Click Tools, Server Configuration, pg_hba.conf. This file is available in the Data folder in the Install directory.
- 4. Double-click the last empty column.
- 5. Complete the following fields:

Type

host

Database

all

Ip Address

0.0.0.0/0

Method

md5

6. Select Enable and click Ok.

- 7. Click Save.
- 8. Click Reload Server.

The PostgreSQL database configuration is complete.

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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 2019 R1 Installation Wizard. You must install erwin Mart Server and configure it regardless of whether you use Mart Server as a Windows service.

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

Follow these steps:

1. Download the EDMMS2019R1(32-bit or 64-bit).exe file from the online erwin product page and run it.

The erwin MartServer 2019 R1(32-bit or 64-bit) 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.

Note: For Mart Server 32-bit, install Oracle (Sun) JRE V1.8.0_172 or higher and then set the JRE_HOME Environment Variable.

3. From the Windows Start menu, click All Programs, erwin, Mart Server 2019 R1(32-bit or 64-bit), Configure MartServer.

The erwin Mart Configuration dialog appears.

Configure the erwin Mart Server

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

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.

Note: 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.

Note: Windows authentication (User Name field) is not supported for connecting to the Mart database from the Configure Mart Server window.

Password

Specifies the password to connect to the Mart database.

Note: 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.

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.

Note: If you do not know the Domain Controller Name, use the *NItest* command or talk to your System Administrator.

Domain/User Name

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

Password

Specifies the password of the domain user.

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

Transport Layer Security

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

Hosting Server

Specifies that you want to use the IIS web server to connect to the Mart. Select this check box only if you have configured IIS.

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.

More information:

Configure IIS Web Server
Implement SSL for IIS

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 2019 R1(32-bit or 64-bit), Stop MartServer Service to stop the web server.
- 2. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), Configure MartServer.
 - The erwin Mart Configuration dialog appears.
- 4. Go to the Mart Administrator tab and select the Transport Layer Security check box.
- 5. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), Start Mart Server Service.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - 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 or the Mart Upgrade utility, 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 Mart Upgrade utility and 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 2019 R1(32-bit or 64-bit), Stop Mart Server Service.
- 2. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), Disable SSL.
- 3. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), Start Mart Server Service.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).

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:

- From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), Start MartServer Service to start the web server.

Enable Logging

To enable logging while using Mart Server as a Windows Service, do the following:

- 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.

Initialize a PostgreSQL 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.

Note: 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.

Follow these steps:

- 1. If you are using MartServer as a Windows service, help ensure that the service is started. If not, from the Windows Start menu, click All Programs, erwin, Mart Server 2019 R1(32-bit or 64-bit), 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 All Programs, erwin, Mart Server 2019 R1(32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - 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.

Note: 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.

Note: 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:

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

Note: 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.

Note: 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 2019 R1(32-bit or 64-bit), Configure MartServer.
 - The erwin Mart Configuration dialog appears.
- 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 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - 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.
- 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.

Use Default Password

Specifies the default password that you want to use for new users and for resetting passwords, in the absence of an SMTP server for emails.

Note: Select this option only if you do not have an SMTP server that is configured for emails.

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.

Note: Select this option only if you want to use a TLS connection.

5. Click Save.

Mart options are configured.

You have installed and configured erwin DM Mart.

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Change the Mart Database Server

Sometimes, you may change the server on which the Mart database is installed, or you may restore the Mart database with a new name. When there is a change the server name or database name, reconfigure the MartServer.

Follow these steps:

- 1. Back up your Mart database.
- Restore the database on the designated server.
- 3. If you use the same computer for Mart Server and restore the database in a different name, include the new database name in the erwin Mart Configuration dialog.
 - From the Windows Start menu, open the erwin Mart Configuration dialog. In the Mart Server tab, Database Name field, enter the new name with which the database is restored. Enter the current user name and password to access the database. If wrong information is provided here, you may be able to install the Mart, but you cannot log in and cannot use it.
- 4. If you use a different computer for Mart Server and restore the database in the same name, install the Mart Server on the new computer.
 - Use the Install erwin Mart Server procedure and install the Mart Server. In the Mart Server tab, Server Name field, enter the name of the new server where the database is restored. Enter the current user name and password to access the database. If wrong information is provided here, you may be able to install the Mart, but you cannot log in and cannot use it.
- 5. Stop the MartServer service and start it again.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - Enter the credentials of the Mart administrator and log in.

Troubleshooting

This section explains the errors that you can encounter while installing and configuring Mart, and how you can troubleshoot them.

Note: The Mart Server log files are available in the following location:

```
Windows 7: {user.home}/AppData/Local/erwin/Mart Server-
/logs/application.log
```

The latest version of Apache Tomcat does not support custom authorization-related error messages. Hence, a generic error message, "Unauthorized operation attempted. For more information, please review the log file.", is displayed. To understand the cause of the error, review the application.log file, which contains the description of the cause. Following is one such sample from the application.log file:

ERROR exception.MMException.setException: java.lang.Exception: User "johndoe" does not have required "View Users" permission on "User Management". Please contact the Mart Administrator for required permission.

Unable to Create MartServer Service

Symptom:

If Mart Server is upgraded to the latest version without stopping and deleting the Mart Server service of the earlier version, creating a new Mart Server service does not work.

Solution:

Run the *sc Delete MartServer* command to delete the Mart Server Service from command prompt and then try to create a Mart Server Service in the new version.

Port out of range

Symptom:

Whenever I connect to the web server, I get the following error message:

```
java.lang.IllegalArgumentException: port out of range 80821.
```

Solution:

Type the correct port number in the Configure erwin Mart Administrator s Server dialog and then restart your web server.

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Call failed on the server

Symptom:

When I try to connect to the Mart server, I get the following error:

500 The call failed on the server; see server log for details

Solution:

The probable reasons for this error could be one of the following reasons:

- The server name is not correct.
- The application name is not correct. By default, the application name is MartServer and it is case-sensitive.

Type the correct server name and application name in the erwin Mart Administrator s Server dialog and the Configure MartServer Details dialog. Restart the web server.

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Application Internal Error

Symptom:

When I try to connect to the database, I get the following error:

Application Internal Error

Solution

You get this error when the MartServer application is unable to connect to the required database. The following reasons are probable for this error:

- The database details that are provided in the Configure MartServer Details dialog are incorrect.
- The username and the password for the database are incorrect.
- The database is not present.

- The port number for the database is incorrect.
- The network is down.

Ensure that you enter the correct details of your database in the Mart Server tab of the erwin Mart Configuration dialog.

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Mart already exists. Specify another database name

Symptom:

When I try to connect to the Mart, I get the following error message:

An earlier mart is already present in the database you are trying to initialize. This process can not be continued. Please specify another database name to continue.

Solution:

You get this error when you connect to an old Mart that you have used for erwin DM Release r7 series, r8 series, or Beta release of any r9 series release.

Create a database and provide its details in the Configure MartServer Details dialog.

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Initialize page is not loading in Internet Explorer

Symptom:

When I type the URL to initialize my Mart in Internet Explorer, the Initialize Mart page is taking a long time to load.

Solution:

The Initialize Mart page does not load because the Active Scripting option in Internet Explorer is disabled.

To enable Active Scripting, follow these steps:

- 1. In Internet Explorer, click Tools, Internet Options.
- 2. In the Security tab, click the Custom Level button.

The Security Settings Local Intranet Zone window opens.

- 3. From the list of options, locate Scripting, Active Scripting, and select Enable. Click OK.
- 4. Restart Internet Explorer and enter the URL to initialize Mart.

 The Mart Initialize page opens.

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The Tomcat server is not starting properly. The Configure button is disabled.

Symptom:

My administrator has given me the Administrator rights and when I start the Tomcat server, I get a series of errors. Also, I cannot click the Configure button in the configuration dialog because it is disabled.

Solution:

Right-click Start Server, and click Run as Administrator.

The Tomcat server starts without any error, and the configuration button is enabled.

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A connection with the server could not be established

Symptom:

When I try to connect to the web server from erwin Data Modeler, I get the following error message:

A connection with the server could not be established

Solution:

Verify that you have provided the correct port number and then reconnect to the web server.

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The server name or address could not be resolved

Symptom:

When I try to connect to the web server from erwin Data Modeler, I get the following error message:

The server name or address could not be resolved

Solution:

Verify that the server name where the web server is installed is correct and then reconnect to the server.

Note: If erwin Data Modeler and the web server are installed on the same computer, you can give the server name as localhost. Suppose that erwin Data Modeler and the web server are installed on different computers. The server name is the name of the computer where the web server is installed.

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Invalid user ID or password

Symptom:

When I try to connect to the server, I get the following error message:

Invalid user ID or password. Please try again to login.

Solution:

Type the correct user name and password.

Note: The user must be an application level user and not a database user.

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Error 12029

Symptom:

When I connect to the web server, I get the following error message:

Error 12029

Solution:

Restart the web server.

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Unable to load the web page from my web browser

Symptom:

When I type the URL in Internet Explorer or Google Chrome to connect to the web server, I get the following error messages:

For Internet Explorer

Internet Explorer cannot display the webpage

For Google Chrome

Oops! Google Chrome could not connect to localhost:18170

Solution:

Restart the web server.

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Internet Explorer Redirects to a Different Link

Symptom:

Suppose that I install erwin Mart Server on a fresh machine. If I enable the SSL option and I invoke erwin Mart Administrator, Internet Explorer redirects the page to res://ieframe.dll//.

Solution:

Internet Explorer versions 8 through 10 have a security enhancement that blocks the following types of sites:

- Sites that have self-signed certificates
- Sites that have self-signed certificates where the certificate does not match the URL

Follow any of these steps:

- Install the certificate in the Trusted Root Certification Authorities store.
- Add the site to trusted sites.
- Set the Internet Explorer Security level to Medium Low.

Chinese characters are replaced with question marks

Symptom:

I type Chinese characters in the Version Description dialog in erwin Mart Administrator. If I open erwin Data Modeler and go to the Catalog Manager window, I see that the Chinese characters are replaced with ????.

Solution:

Follow these steps:

- 1. Select Chinese for the Format, Location, and Locale fields in the computer where you have installed erwin Data Modeler, Mart server, and Mart database. (You can access these settings through the Control Panel.)
- 2. Open the Database Properties dialog for the Mart database and verify the value for the Collation field.
- 3. If the value is other than SQL_Latin1_General_CP1_CI_AS, create a database and assign this value for Collation. Initialize the Mart again.

I have a very long Windows user name and I cannot log in to the Mart through erwin Data Modeler

Symptom:

I have added a very long Windows user name similar to "Magdalena.Chalamalasetti" using the Mart Administrator. When the user tries to log in to the Mart through erwin Data Modeler, the name is truncated to "US\Magdalena.Chalamas" and the user cannot log in.

Solution:

The name is truncated due to a limitation with Windows. The Windows API returns the legacy user name that is limited to 20 characters. If the length of a user name exceeds 20 characters, for example, "US\Magdalena.Chalamalasetti", the name is displayed as "US\Magdalena.Chalamas" in the Connect to Mart dialog.

You can resolve this in one of the following ways:

- Type the first 20 characters of the user name when you add the user as a Windows User, in the Mart Administrator. For example, instead of typing "US\Magdalena.Chalamalasetti", type "US\Magdalena.Chalamalas".
- Use a Windows Group instead of the user's domain name. Using your Windows domain controller software, add the user to a Windows Group, and then add the group as a User Group in the Mart Administrator. For more information about how to add a User Group, see erwin Data Modeler r9 Workgroup Edition: Support for Directory Services video.

SSL Certificate Error

Symptom:

When you open Mart Administrator from Mart Server that is configured with an SSL certification, an SSL certificate error appears.

Solution:

1. Replace localhost in the Mart Server URL with your computer name.

```
https://localhost:12345/MartAdmin/
```

https://<computer_name>:12345/MartAdmin/

2. Use the updated URL to access the Mart Server

Unable to save a model to Mart with an existing model name

Symptom:

When you save a model to Mart with an existing model name, a dialog with the following text appears.

Model '<model name>' already exists in library '<mart name>'. Rename the new model name

Solution:

Save the model with a different name.

Install and Configure a SQL Server Mart

This section describes how you can install and configure a Mart on a SQL Server database.

This section contains the following topics

How to Install and Configure a SQL Server Mart

How to Upgrade any r9 Series Mart to the Current Version

Change the Mart Database Server

Troubleshooting

How to Install and Configure a SQL Server Mart

In the previous versions, erwin Data Modeler connected to the Mart server directly. Now, erwin Data Modeler connects to the Mart server through a web server.

The Mart comprises the following components:

Database

Stores the user data for the Workgroup Edition. You can use a Microsoft SQL Server 2012, 2014, 2014 SP1, 2016, 2016 SP1, or 2017 database for the Mart database. You must use a new database and not an existing database that was created for an older version of the data modeling tool.

Applications

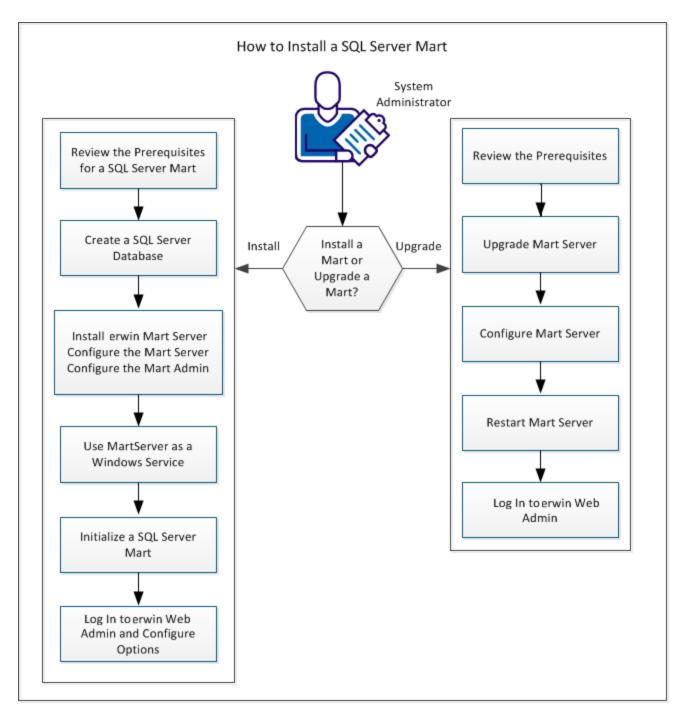
Includes a web-based component named erwin Mart Administrator that helps you manage the Mart through a web console.

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.

If you are using the Workgroup Edition, you must install and configure erwin Mart Administrator.

The following diagram illustrates how to install and configure a Mart:



Complete the following steps in the same order to install and configure the Mart:

- 1. Review the Prerequisites for an SQL Server Mart
- 2. Create an SQL Server Database
- 3. Install erwin Mart Server
- 4. Use Mart Server as a Windows Service
- 5. Initialize a SQL Server Mart
- 6. Log in to erwin Mart Administrator and configure settings

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Mart Architecture

In the previous versions, erwin DM connected to the Mart database through the database client software. Now, the application connects to the Mart database through a web server. The database client software is no longer required. The web server includes a web-based administration console erwin Mart Administrator. If you are using the Workgroup Edition, you must install and configure erwin Mart Administrator.

Database

Stores the user data for the Workgroup Edition. You can use a Microsoft SQL Server 2012, 2014, 2014 SP1, 2016, 2016 SP1, or 2017 database for the Mart database. You must use a new database and not an existing database that was created for an older version of the data modeling tool.

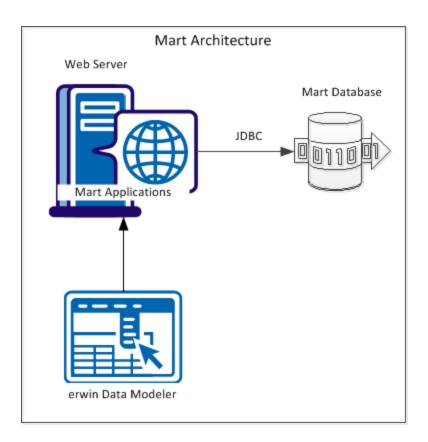
Applications

Includes a web-based component named 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.

The following diagram shows the new architecture:



The new architecture has the following benefits:

- Separate logical and physical users: In the previous versions, Mart (or Model Manager) users required database level privileges to access the Mart functionality. The Mart database administrators added or deleted users in the Mart database. This approach is changed now. The logical users are separated from physical users, so Mart Administrators can create the Mart users without creating the corresponding database users.
- Authentication through Active Directory services: Earlier, if you wanted to provide access to a user group, you added each user individually. Now, because of the new architecture, you can use the Active Directory services and can provide access to the group. Anyone who is part of the group gets access.
- Mart administration outside erwin Data Modeler: In the previous versions, Mart Administrators used erwin Data Modeler for administrative activities such as managing permissions. This required non-modelers to know how to use erwin Data

Modeler. In the new architecture, the administration component is built on a separate layer on top of erwin Data Modeler and is hosted on a web server. Mart Administrators can access erwin Web Admin from any computer and can perform administrative activities through a web console.

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Install a Mart or Upgrade a Mart?

Use the following guidelines to determine if you must install a Mart or upgrade a Mart:

- If you are new to erwin Data Modeler and have purchased the current version of Workgroup Edition, then install the current version of the Mart. Use the How to Install and Configure a Mart procedure that is appropriate for your Mart database.
- If you have any earlier release of r9 series Mart, then upgrade the Mart to the current version. Use the How to Upgrade any r9 Series Mart to the Current Version procedure to upgrade your Mart. The models that are created in any earlier release of r9 series are upgraded when a user connects to the current version Mart and opens the models.
- If you have an existing Mart and the version is r7.3 through r8.2.9, install the current version Mart. Use the How to Install and Configure a Mart procedure that is appropriate for your Mart database. After installing the Mart, use the Upgrade Mart utility to upgrade the Mart models from r7.3 through r8.2.9 to the current version.

Review the Prerequisites for a SQL Server Mart

Before you install the Mart components, help 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 to install 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):

- 2 GHZ or higher dual core processor
- 4 GB RAM (8 GB or more for large marts)
- 4 GB of disk space or more as required to support your specific mart

Operating system:

- Microsoft Windows 7 SP1
- Microsoft Windows 8.1
- Microsoft Windows 10

- Microsoft Windows Server 2008 R2 SP1
- Microsoft Windows Server 2012, R2
- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- 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 a Microsoft SQL Server 2012, 2014, 2014 SP1, 2016, 2016 SP1, or 2017 database.
- The SQL Server 2012, 2014, 2014 SP1, 2016, and 2016 SP1 TRUSTWORTHY database property is no longer required for the mart. After you install this product, you can optionally reset this property to OFF.
- The database user account that is used to configure the Mart must have the dba_ owner role assigned.
- (Optional) To use the Korean language, use the Korean_wansung_CI_AS character set.
 Select the character set while creating the Mart database (in the Collation field). For more information, see the SQL Server documentation.

erwin Mart Administrator web client:

Supported browsers:

- Microsoft Internet Explorer v10 or newer
- Mozilla Firefox v30 or newer
- Google Chrome v30 or newer
- Apple Safari 6 or newer

Note: Ensure that your screen resolution is 1024×768 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.
- If you want to add Windows Group users as Mart users, you have the Active Directory Server details.

Note: 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

- 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.

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Create a SQL Server Database

If you are a DBA or a system administrator responsible for installing the software on a Microsoft SQL Server database management system, perform the following tasks:

1. Use a graphical user interface (GUI) tool, ISQL (all versions), SQL Administrator, or Enterprise Manager to create the Mart database. If a GUI tool is not available, you can use ISQL to type in the appropriate commands manually.

Your database should meet the following criteria:

- The initial size of the database file should be set to 60 MB.
- The initial size of the transaction log file should be set to 50 MB.
- Set the maximum file size to unrestricted file growth for both files (recommended, but not required).
- Increase the Set Auto grow file by 10 percent (recommended, but not required).

The new database is *owned* by the user who created it.

Set the Truncate Log on Checkpoint option and have the server generate checkpoints frequently. By selecting this option, the log is emptied periodically and should not fill up and cause rollbacks.

Note: For best performance ensure that separate devices are used to store the data and the transaction log.

2. Verify tempdb size.

Significant temporary space is required for installation and use. The temporary segments need at least 16 MB of available space. You should also increase available space as the number of concurrent users increase.

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Microsoft SQL Server 2005 Permissions

For a SQL Server 2005 Mart, you must have the *bulkadmin* permission designated. The ability to do bulk inserts (which the public permission permitted previously) is no longer part of the public permission. As the administrator, you explicitly define this permission. Assign the bulkadmin permission to the physical user that connects to the database. If you do not define the permission, when you create a mart using a SQL Server 2005 database, and save it, an error appears.

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Specify Use of Foreign Characters With Microsoft SQL Server 2005

For Microsoft SQL Server 2008, 2012, 2014, 2014 SP1, 2016, and 2016 SP1 modify your registry settings to have certain foreign language characters in your models recognized.

Follow these steps:

- 1. Click Run on the Start menu.
- 2. Enter regedit.

The Registry Editor opens.

3. Verify or add the following registry entry:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\Client\DB-Lib] 
"AutoAnsiToOem"="ON"
```

4. Click File, Exit.

"UseIntlSettings"="ON"

Your configuration is set to recognize foreign language characters in your models.

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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 2019 R1 Installation Wizard. You must install erwin Mart Server and configure it regardless of whether you use Mart Server as a Windows service.

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

Follow these steps:

1. Download the EDMMS2019R1(32-bit or 64-bit).exe file from the online erwin product page and run it.

The erwin MartServer 2019 R1(32-bit or 64-bit) 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.

Note: For Mart Server 32-bit, install Oracle (Sun) JRE V1.8.0_172 or higher and then set the JRE_HOME Environment Variable.

3. From the Windows Start menu, click All Programs, erwin, Mart Server 2019 R1(32-bit or 64-bit), Configure MartServer.

The erwin Mart Configuration dialog appears.

Configure the erwin Mart Server

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

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.

Note: 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.

Note: Windows authentication (User Name field) is not supported for connecting to the Mart database from the Configure Mart Server window.

Password

Specifies the password to connect to the Mart database.

Note: 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.

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.

Note: If you do not know the Domain Controller Name, use the *NItest* command or talk to your System Administrator.

Domain/User Name

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

Password

Specifies the password of the domain user.

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

Transport Layer Security

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

Hosting Server

Specifies that you want to use the IIS web server to connect to the Mart. Select this check box only if you have configured IIS.

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.

More information:

Configure IIS Web Server
Implement SSL for IIS

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 2019 R1(32-bit or 64-bit), Stop MartServer Service to stop the web server.
- 2. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), Configure MartServer.
 - The erwin Mart Configuration dialog appears.
- 4. Go to the Mart Administrator tab and select the Transport Layer Security check box.
- 5. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), Start Mart Server Service.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - 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 or the Mart Upgrade utility, 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 Mart Upgrade utility and 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 2019 R1(32-bit or 64-bit), Stop Mart Server Service.
- 2. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), Disable SSL.
- 3. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), Start Mart Server Service.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).

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:

- From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), Start MartServer Service to start the web server.

Enable Logging

To enable logging while using Mart Server as a Windows Service, do the following:

- 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.

Initialize a SQL Server 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.

Note: 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.

Follow these steps:

- 1. If you are using MartServer as a Windows service, help ensure that the service is started. If not, from the Windows Start menu, click All Programs, erwin, Mart Server 2019 R1(32-bit or 64-bit), 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 All Programs, erwin, Mart Server 2019 R1(32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - 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.

Note: 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.

Note: 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:

- 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.

Note: 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.

Note: 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 2019 R1(32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).

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.
- 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.

Use Default Password

Specifies the default password that you want to use for new users and for resetting passwords, in the absence of an SMTP server for emails.

Note: Select this option only if you do not have an SMTP server that is configured for emails.

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.

Note: Select this option only if you want to use a TLS connection.

5. Click Save.

Mart options are configured.

You have installed and configured erwin DM Mart.

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Change the Mart Database Server

Sometimes, you may change the server on which the Mart database is installed, or you may restore the Mart database with a new name. When there is a change the server name or database name, reconfigure the MartServer.

Follow these steps:

- 1. Back up your Mart database.
- 2. Restore the database on the designated server.
- 3. If you use the same computer for Mart Server and restore the database in a different name, include the new database name in the erwin Mart Configuration dialog.
 - From the Windows Start menu, open the erwin Mart Configuration dialog. In the Mart Server tab, Database Name field, enter the new name with which the database is restored. Enter the current user name and password to access the database. If wrong information is provided here, you may be able to install the Mart, but you cannot log in and cannot use it.
- 4. If you use a different computer for Mart Server and restore the database in the same name, install the Mart Server on the new computer.
 - Use the Install erwin Mart Server procedure and install the Mart Server. In the Mart Server tab, Server Name field, enter the name of the new server where the database is restored. Enter the current user name and password to access the database. If wrong information is provided here, you may be able to install the Mart, but you cannot log in and cannot use it.
- 5. Stop the MartServer service and start it again.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - Enter the credentials of the Mart administrator and log in.

Troubleshooting

This section explains the errors that you can encounter while installing and configuring Mart, and how you can troubleshoot them.

Note: The Mart Server log files are available in the following location:

```
Windows 7: {user.home}/AppData/Local/erwin/Mart Server-
/logs/application.log
```

The latest version of Apache Tomcat does not support custom authorization-related error messages. Hence, a generic error message, "Unauthorized operation attempted. For more information, please review the log file.", is displayed. To understand the cause of the error, review the application.log file, which contains the description of the cause. Following is one such sample from the application.log file:

ERROR exception.MMException.setException: java.lang.Exception: User "johndoe" does not have required "View Users" permission on "User Management". Please contact the Mart Administrator for required permission.

Unable to Create MartServer Service

Symptom:

If Mart Server is upgraded to the latest version without stopping and deleting the Mart Server service of the earlier version, creating a new Mart Server service does not work.

Solution:

Run the *sc Delete MartServer* command to delete the Mart Server Service from command prompt and then try to create a Mart Server Service in the new version.

Port out of range

Symptom:

Whenever I connect to the web server, I get the following error message:

```
java.lang.IllegalArgumentException: port out of range 80821.
```

Solution:

Type the correct port number in the Configure erwin Mart Administrator s Server dialog and then restart your web server.

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Call failed on the server

Symptom:

When I try to connect to the Mart server, I get the following error:

500 The call failed on the server; see server log for details

Solution:

The probable reasons for this error could be one of the following reasons:

- The server name is not correct.
- The application name is not correct. By default, the application name is MartServer and it is case-sensitive.

Type the correct server name and application name in the erwin Mart Administrator s Server dialog and the Configure MartServer Details dialog. Restart the web server.

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Application Internal Error

Symptom:

When I try to connect to the database, I get the following error:

Application Internal Error

Solution

You get this error when the MartServer application is unable to connect to the required database. The following reasons are probable for this error:

- The database details that are provided in the Configure MartServer Details dialog are incorrect.
- The username and the password for the database are incorrect.

- The database is not present.
- The port number for the database is incorrect.
- The network is down.

Ensure that you enter the correct details of your database in the Mart Server tab of the erwin Mart Configuration dialog.

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ORA-12514 TNS listener does not currently know of service requested in connect descriptor

Symptom:

When I try to open the erwin Mart Administrator page, I get the Application Internal Error. The Tomcat windows shows the following error message:

ORA-12514, TNS: listener does not currently know of service requested in connect descriptor

Solution:

Use a fully qualified instance name when starting the Mart Server.

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Mart already exists. Specify another database name

Symptom:

When I try to connect to the Mart, I get the following error message:

An earlier mart is already present in the database you are trying to initialize. This process can not be continued. Please specify another database name to continue.

Solution:

You get this error when you connect to an old Mart that you have used for erwin DM Release r7 series, r8 series, or Beta release of any r9 series release.

Create a database and provide its details in the Configure MartServer Details dialog.

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Initialize page is not loading in Internet Explorer

Symptom:

When I type the URL to initialize my Mart in Internet Explorer, the Initialize Mart page is taking a long time to load.

Solution:

The Initialize Mart page does not load because the Active Scripting option in Internet Explorer is disabled.

To enable Active Scripting, follow these steps:

- 1. In Internet Explorer, click Tools, Internet Options.
- In the Security tab, click the Custom Level button.
 The Security Settings Local Intranet Zone window opens.
- 3. From the list of options, locate Scripting, Active Scripting, and select Enable. Click OK.
- Restart Internet Explorer and enter the URL to initialize Mart.
 The Mart Initialize page opens.

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The Tomcat server is not starting properly. The Configure button is disabled.

Symptom:

My administrator has given me the Administrator rights and when I start the Tomcat server, I get a series of errors. Also, I cannot click the Configure button in the configuration dialog because it is disabled.

Solution:

Right-click Start Server, and click Run as Administrator.

The Tomcat server starts without any error, and the configuration button is enabled.

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A connection with the server could not be established

Symptom:

When I try to connect to the web server from erwin Data Modeler, I get the following error message:

A connection with the server could not be established

Solution:

Verify that you have provided the correct port number and then reconnect to the web server.

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The server name or address could not be resolved

Symptom:

When I try to connect to the web server from erwin Data Modeler, I get the following error message:

The server name or address could not be resolved

Solution:

Verify that the server name where the web server is installed is correct and then reconnect to the server.

Note: If erwin Data Modeler and the web server are installed on the same computer, you can give the server name as localhost. Suppose that erwin Data Modeler and the web server are installed on different computers. The server name is the name of the computer where the web server is installed.

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Invalid user ID or password

Symptom:

When I try to connect to the server, I get the following error message:

Invalid user ID or password. Please try again to login.

Solution:

Type the correct user name and password.

Note: The user must be an application level user and not a database user.

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Error 12029

Symptom:

When I connect to the web server, I get the following error message:

Error 12029

Solution:

Restart the web server.

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Unable to load the web page from my web browser

Symptom:

When I type the URL in Internet Explorer or Google Chrome to connect to the web server, I get the following error messages:

For Internet Explorer

Internet Explorer cannot display the webpage

For Google Chrome

Oops! Google Chrome could not connect to localhost:18170

Solution:

Restart the web server.

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Internet Explorer Redirects to a Different Link

Symptom:

Suppose that I install erwin Mart Server on a fresh machine. If I enable the SSL option and I invoke erwin Mart Administrator, Internet Explorer redirects the page to res://ieframe.dll//.

Solution:

Internet Explorer versions 8 through 10 have a security enhancement that blocks the following types of sites:

- Sites that have self-signed certificates
- Sites that have self-signed certificates where the certificate does not match the URL

Follow any of these steps:

- Install the certificate in the Trusted Root Certification Authorities store.
- Add the site to trusted sites.
- Set the Internet Explorer Security level to Medium Low.

I have a very long Windows user name and I cannot log in to the Mart through erwin Data Modeler

Symptom:

I have added a very long Windows user name similar to "Magdalena.Chalamalasetti" using the Mart Administrator. When the user tries to log in to the Mart through erwin Data Modeler, the name is truncated to "US\Magdalena.Chalamas" and the user cannot log in.

Solution:

The name is truncated due to a limitation with Windows. The Windows API returns the legacy user name that is limited to 20 characters. If the length of a user name exceeds 20 characters, for example, "US\Magdalena.Chalamalasetti", the name is displayed as "US\Magdalena.Chalamas" in the Connect to Mart dialog.

You can resolve this in one of the following ways:

- Type the first 20 characters of the user name when you add the user as a Windows User, in the Mart Administrator. For example, instead of typing "US\Magdalena.Chalamalasetti", type "US\Magdalena.Chalamalas".
- Use a Windows Group instead of the user's domain name. Using your Windows domain controller software, add the user to a Windows Group, and then add the group as a User Group in the Mart Administrator. For more information about how to add a User Group, see erwin Data Modeler r9 Workgroup Edition: Support for Directory Services video.

SSL Certificate Error

Symptom:

When you open Mart Administrator from Mart Server that is configured with an SSL certification, an SSL certificate error appears.

Solution:

1. Replace localhost in the Mart Server URL with your computer name.

https://localhost:12345/MartAdmin/

https://<computer_name>:12345/MartAdmin/

2. Use the updated URL to access the Mart Server

Unable to save a model to Mart with an existing model name

Symptom:

When you save a model to Mart with an existing model name, a dialog with the following text appears.

Model '<model name>' already exists in library '<mart name>'. Rename the new model name

Solution:

Save the model with a different name.

Install and Configure a SAP ASE Mart

This section describes how you can install and configure a Mart on a SAP ASE database.

This section contains the following topics

How to Install and Configure a SAP ASE Mart

How to Upgrade any r9 Series Mart to the Current Version

Change the Mart Database Server

Troubleshooting

How to Install and Configure a SAP ASE Mart

In the previous versions, erwin Data Modeler connected to the Mart database through the database client software. Now, the application connects to the Mart database through a web server. The database client software is no longer required.

The Mart comprises the following components:

Database

Stores the user data for the Workgroup Edition. You can use a SAP Adaptive Server Enterprise (ASE) 15.0 through 15.7 and SAP ASE 16, or the certified version, SAP ASE 16 SP02 database for the Mart database. You must use a new database and not an existing database that was created for an older version of the data modeling tool.

Applications

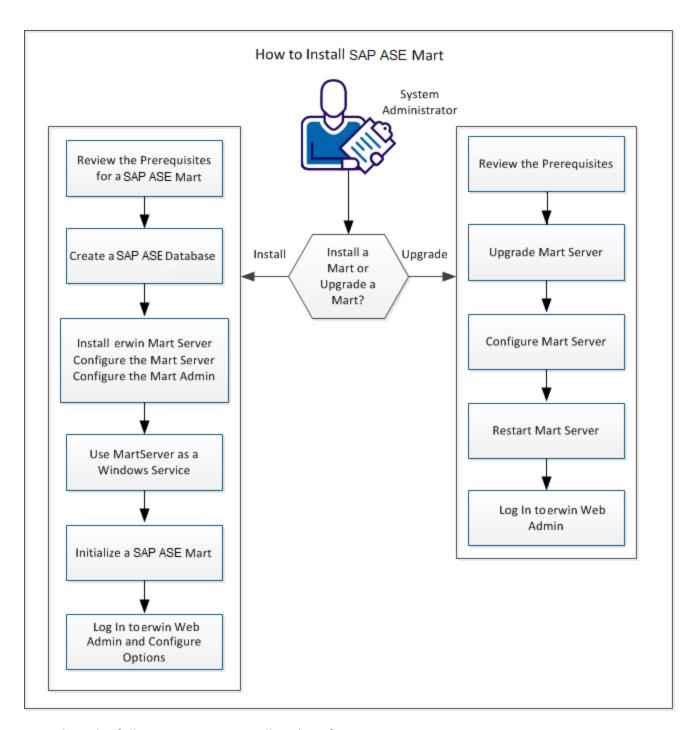
Includes a web-based component named erwin Mart Administrator that helps you manage the Mart through a web console.

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.

If you are using the Workgroup Edition, you must install and configure erwin Mart Administrator.

The following diagram illustrates how to install and configure Mart:



Complete the following steps to install and configure a Mart:

- 1. Review the Prerequisites for a SAP ASE Mart
- 2. Create a SAP ASE Database
- 3. Install erwin Mart Server
- 4. Use Mart Server as a Windows Service
- 5. Initialize a SAP ASE Mart
- 6. Log in to erwin Mart Administrator and configure settings

Mart Architecture

In the previous versions, erwin DM connected to the Mart database through the database client software. Now, the application connects to the Mart database through a web server. The database client software is no longer required. The web server includes a web-based administration console erwin Mart Administrator. If you are using the Workgroup Edition, you must install and configure erwin Mart Administrator.

The Mart comprises the following components:

Database

Stores the user data for the Workgroup Edition. You can use a SAP Adaptive Server Enterprise (ASE) 15.0 through 15.7 and SAP ASE 16, or the certified version, SAP ASE 16 SP02 database for the Mart database. You must use a new database and not an existing database that was created for an older version of the data modeling tool.

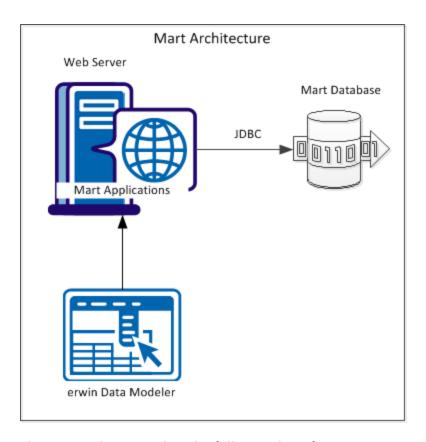
Applications

Includes a web-based component named 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.

The following diagram shows the new architecture:



The new architecture has the following benefits:

- Separate logical and physical users: In the previous versions, Mart (or Model Manager) users required database level privileges to access the Mart functionality. The Mart database administrators added or deleted users in the Mart database. This approach is changed now. The logical users are separated from physical users, so Mart Administrators can create the Mart users without creating the corresponding database users.
- Authentication through Active Directory services: Earlier, if you wanted to provide access to a user group, you added each user individually. Now, because of the new architecture, you can use the Active Directory services and can provide access to the group. Anyone who is part of the group gets access.
- Mart administration outside erwin Data Modeler: In the previous versions, Mart Administrators used erwin Data Modeler for administrative activities such as managing permissions. This required non-modelers to know how to use erwin Data

Modeler. In the new architecture, the administration component is built on a separate layer on top of erwin Data Modeler and is hosted on a web server. Mart Administrators can access erwin Web Admin from any computer and can perform administrative activities through a web console.

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Install a Mart or Upgrade a Mart?

Use the following guidelines to determine if you must install a Mart or upgrade a Mart:

- If you are new to erwin Data Modeler and have purchased the current version of Workgroup Edition, then install the current version of the Mart. Use the How to Install and Configure a Mart procedure that is appropriate for your Mart database.
- If you have any earlier release of r9 series Mart, then upgrade the Mart to the current version. Use the How to Upgrade any r9 Series Mart to the Current Version procedure to upgrade your Mart. The models that are created in any earlier release of r9 series are upgraded when a user connects to the current version Mart and opens the models.
- If you have an existing Mart and the version is r7.3 through r8.2.9, install the current version Mart. Use the How to Install and Configure a Mart procedure that is appropriate for your Mart database. After installing the Mart, use the Upgrade Mart utility to upgrade the Mart models from r7.3 through r8.2.9 to the current version.

Review the Prerequisites for a SAP ASE Mart

Before you install the Mart components, help 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 to install 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):

- 2 GHZ or higher dual core processor
- 4 GB RAM (8 GB or more for large marts)
- 4 GB of disk space or more as required to support your specific mart

Operating system:

- Microsoft Windows 7 SP1
- Microsoft Windows 8.1
- Microsoft Windows 10

- Microsoft Windows Server 2008 R2 SP1
- Microsoft Windows Server 2012, R2
- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- 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 a SAP ASE 15.0 through 15.7 and SAP ASE 16 database, or the certified version, SAP ASE 16 SP02.
- The dbo role is necessary only during the installation or upgrade. You can revoke the dbo role for the installer after the installation or upgrade is complete.

(Optional) To use the Korean language, configure the server manually to use Cp949, Utf8, or eucksc character set. These character sets apply to a 64-bit Windows 7 computer running the Korean language pack. When you configure the server, help ensure that you perform the following tasks:

- 1. Add the language and set it as default.
- 2. Select the character set and set it as default.

Note: PC (MS) Korean stands for *cp949* character set. Extended Unix Code for KSC-5601 stands for *eucksc* character set. Unicode 3.1 UTF-8 Character Set stands for *utf8* character set.

Select the default sort order.

For more information, see the Sybase documentation. Create the Mart database after you perform the tasks that are mentioned earlier.

erwin Mart Administrator web client:

Supported browsers:

- Microsoft Internet Explorer v10 or newer
- Mozilla Firefox v30 or newer

- Google Chrome v30 or newer
- Apple Safari 6 or newer

Note: Ensure that your screen resolution is 1024×768 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.
- If you want to add Windows Group users as Mart users, you have the Active Directory Server details.

Note: 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

- 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.

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Create a SAP ASE Database

The DBA and the system administrator responsible for installing the software on a SAP ASE database management system perform the following tasks:

1. Use a graphical user interface (GUI) tool, ISQL (all versions), SQL Administrator, Sybase Central Java, or Enterprise Manager to create the mart database. If a GUI tool is not available, use ISQL to type the appropriate commands manually.

Your database must meet the following criteria:

- The size of the data device you create determines the size of the database. The minimum database size is 32 MB so there has to be at least one device that is 32 MB. Create the data device on a different disk (and disk controller) than the transaction log.
- For optimum performance, verify that separate devices are used to store the data and the transaction log. For example, you can increase performance by creating a 50-MB data device and a 25-MB log device. A minimum of 40 MB of disk space (data and log) is required.
- 2. Verify the Stored Procedure Cache.

Set the Stored Procedure Cache size to at least 8 MB. Setting it higher improves performance, especially when many users are accessing the server concurrently. Setting it lower results in fatal errors and rollbacks when the Stored Procedure Cache size is exceeded.

Note: The installation creates more than 100 stored procedures. The client invokes these stored procedures to control changes to the data in the database.

3. Verify tempdb size.

Significant temporary space is required for installation and use. The temporary segments need at least 16 MB of available space. Increase the available space as the number of concurrent users increase.

4. Verify the memory allocated to the database server.

Allocate at least 32 MB of RAM to the database server. The amount of RAM allocated is ideally half of the available RAM on the server.

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Transact-SQL Commands

If a graphical DBMS access tool is not available, you can use Transact-SQL commands through ISQL.

Example: Create a device using the Transact-SQL DISK INIT command through ISQL

Example: Create a database using the Transact-SQL CREATE DATABASE command through ISQL

```
CREATE DATABASE mmmaster
  [ON {DEFAULT | database_device} [= size_in_megabytes] /* The
device created in #1. */
  [, database_device [= size_in_megabytes]]...] /* A database can
span devices. */
  [LOG ON database device [= size_in_megabytes>] /* Separate log
device. */
  [, database device [= size_in_megabytes]]...] /* A transaction
log can span devices. */
```

Example: Add logins to the database with the *sp_addlogin* and *sp_adduser* commands using Transact-SQL through ISQL

```
sp_addlogin login_id [, passwd [, defdb [, deflanguage]]]
sp adduser login id [, username [, grpname]]
```

After you execute these commands, the DBA can alias an existing login as the Database Owner (dbo) or change the dbo to an existing login using *sp_changedbowner*. Use ISQL to execute the following:

```
sp changedbowner login_id [,true]
```

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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 2019 R1 Installation Wizard. You must install erwin Mart Server and configure it regardless of whether you use Mart Server as a Windows service.

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

Follow these steps:

1. Download the EDMMS2019R1(32-bit or 64-bit).exe file from the online erwin product page and run it.

The erwin MartServer 2019 R1(32-bit or 64-bit) 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.

Note: For Mart Server 32-bit, install Oracle (Sun) JRE V1.8.0_172 or higher and then set the JRE_HOME Environment Variable.

3. From the Windows Start menu, click All Programs, erwin, Mart Server 2019 R1(32-bit or 64-bit), Configure MartServer.

The erwin Mart Configuration dialog appears.

Configure the erwin Mart Server

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

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.

Note: 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.

Note: Windows authentication (User Name field) is not supported for connecting to the Mart database from the Configure Mart Server window.

Password

Specifies the password to connect to the Mart database.

Note: 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.

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.

Note: If you do not know the Domain Controller Name, use the *NItest* command or talk to your System Administrator.

Domain/User Name

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

Password

Specifies the password of the domain user.

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

Transport Layer Security

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

Hosting Server

Specifies that you want to use the IIS web server to connect to the Mart. Select this check box only if you have configured IIS.

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.

More information:

Configure IIS Web Server
Implement SSL for IIS

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 2019 R1(32-bit or 64-bit), Stop MartServer Service to stop the web server.
- 2. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), Configure MartServer.
 - The erwin Mart Configuration dialog appears.
- 4. Go to the Mart Administrator tab and select the Transport Layer Security check box.
- 5. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), Start Mart Server Service.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - 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 or the Mart Upgrade utility, 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 Mart Upgrade utility and 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 2019 R1(32-bit or 64-bit), Stop Mart Server Service.
- 2. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), Disable SSL.
- 3. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), Start Mart Server Service.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).

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:

- From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), 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 2019 R1 (32-bit or 64-bit), Start MartServer Service to start the web server.

Enable Logging

To enable logging while using Mart Server as a Windows Service, do the following:

- 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.

Initialize a SAP ASE 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.

Note: 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.

Follow these steps:

- 1. If you are using MartServer as a Windows service, help ensure that the service is started. If not, from the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1(32-bit or 64-bit), Start Mart Server to start the Mart Server.
 - A Windows command prompt window appears and indicates when the server starts.
- From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - 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.

Note: 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.

Note: 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:

- 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.

Note: 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.

Note: 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 2019 R1(32-bit or 64-bit), Configure MartServer.

The erwin Mart Configuration dialog appears.

 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 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).

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.
- 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.

Use Default Password

Specifies the default password that you want to use for new users and for resetting passwords, in the absence of an SMTP server for emails.

Note: Select this option only if you do not have an SMTP server that is configured for emails.

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.

Note: Select this option only if you want to use a TLS connection.

5. Click Save.

Mart options are configured.

You have installed and configured erwin DM Mart.

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Change the Mart Database Server

Sometimes, you may change the server on which the Mart database is installed, or you may restore the Mart database with a new name. When there is a change the server name or database name, reconfigure the MartServer.

Follow these steps:

- 1. Back up your Mart database.
- 2. Restore the database on the designated server.
- 3. If you use the same computer for Mart Server and restore the database in a different name, include the new database name in the erwin Mart Configuration dialog.
 - From the Windows Start menu, open the erwin Mart Configuration dialog. In the Mart Server tab, Database Name field, enter the new name with which the database is restored. Enter the current user name and password to access the database. If wrong information is provided here, you may be able to install the Mart, but you cannot log in and cannot use it.
- 4. If you use a different computer for Mart Server and restore the database in the same name, install the Mart Server on the new computer.
 - Use the Install erwin Mart Server procedure and install the Mart Server. In the Mart Server tab, Server Name field, enter the name of the new server where the database is restored. Enter the current user name and password to access the database. If wrong information is provided here, you may be able to install the Mart, but you cannot log in and cannot use it.
- 5. Stop the MartServer service and start it again.
- 6. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), erwin Mart Administrator 2019 R1(32-bit or 64-bit).
 - Enter the credentials of the Mart administrator and log in.

Troubleshooting

This section explains the errors that you can encounter while installing and configuring Mart, and how you can troubleshoot them.

Note: The Mart Server log files are available in the following location:

```
Windows 7: {user.home}/AppData/Local/erwin/Mart Server-
/logs/application.log
```

The latest version of Apache Tomcat does not support custom authorization-related error messages. Hence, a generic error message, "Unauthorized operation attempted. For more information, please review the log file.", is displayed. To understand the cause of the error, review the application.log file, which contains the description of the cause. Following is one such sample from the application.log file:

ERROR exception.MMException.setException: java.lang.Exception: User "johndoe" does not have required "View Users" permission on "User Management". Please contact the Mart Administrator for required permission.

Port out of range

Symptom:

Whenever I connect to the web server, I get the following error message:

```
java.lang.IllegalArgumentException: port out of range 80821.
```

Solution:

Type the correct port number in the Configure erwin Mart Administrator s Server dialog and then restart your web server.

Call failed on the server

Symptom:

When I try to connect to the Mart server, I get the following error:

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500 The call failed on the server; see server log for details

Solution:

The probable reasons for this error could be one of the following reasons:

- The server name is not correct.
- The application name is not correct. By default, the application name is MartServer and it is case-sensitive.

Type the correct server name and application name in the erwin Mart Administrator s Server dialog and the Configure MartServer Details dialog. Restart the web server.

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Application Internal Error

Symptom:

When I try to connect to the database, I get the following error:

Application Internal Error

Solution

You get this error when the MartServer application is unable to connect to the required database. The following reasons are probable for this error:

- The database details that are provided in the Configure MartServer Details dialog are incorrect.
- The username and the password for the database are incorrect.
- The database is not present.
- The port number for the database is incorrect.
- The network is down.

Ensure that you enter the correct details of your database in the Mart Server tab of the erwin Mart Configuration dialog.

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ORA-12514 TNS listener does not currently know of service requested in connect descriptor

Symptom:

When I try to open the erwin Mart Administrator page, I get the Application Internal Error. The Tomcat windows shows the following error message:

ORA-12514, TNS: listener does not currently know of service requested in connect descriptor

Solution:

Use a fully qualified instance name when starting the Mart Server.

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Mart already exists. Specify another database name

Symptom:

When I try to connect to the Mart, I get the following error message:

An earlier mart is already present in the database you are trying to initialize. This process can not be continued. Please specify another database name to continue.

Solution:

You get this error when you connect to an old Mart that you have used for erwin DM Release r7 series, r8 series, or Beta release of any r9 series release.

Create a database and provide its details in the Configure MartServer Details dialog.

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Initialize page is not loading in Internet Explorer

Symptom:

When I type the URL to initialize my Mart in Internet Explorer, the Initialize Mart page is taking a long time to load.

Solution:

The Initialize Mart page does not load because the Active Scripting option in Internet Explorer is disabled.

To enable Active Scripting, follow these steps:

- 1. In Internet Explorer, click Tools, Internet Options.
- 2. In the Security tab, click the Custom Level button.
 - The Security Settings Local Intranet Zone window opens.
- 3. From the list of options, locate Scripting, Active Scripting, and select Enable. Click OK.
- Restart Internet Explorer and enter the URL to initialize Mart.
 The Mart Initialize page opens.

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The Tomcat server is not starting properly. The Configure button is disabled.

Symptom:

My administrator has given me the Administrator rights and when I start the Tomcat server, I get a series of errors. Also, I cannot click the Configure button in the configuration dialog because it is disabled.

Solution:

Right-click Start Server, and click Run as Administrator.

The Tomcat server starts without any error, and the configuration button is enabled.

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A connection with the server could not be established

Symptom:

When I try to connect to the web server from erwin Data Modeler, I get the following error message:

A connection with the server could not be established

Solution:

Verify that you have provided the correct port number and then reconnect to the web server.

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The server name or address could not be resolved

Symptom:

When I try to connect to the web server from erwin Data Modeler, I get the following error message:

The server name or address could not be resolved

Solution:

Verify that the server name where the web server is installed is correct and then reconnect to the server.

Note: If erwin Data Modeler and the web server are installed on the same computer, you can give the server name as localhost. Suppose that erwin Data Modeler and the web server are installed on different computers. The server name is the name of the computer where the web server is installed.

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Invalid user ID or password

Symptom:

When I try to connect to the server, I get the following error message:

Invalid user ID or password. Please try again to login.

Solution:

Type the correct user name and password.

Note: The user must be an application level user and not a database user.

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Error 12029

Symptom:

When I connect to the web server, I get the following error message:

Error 12029

Solution:

Restart the web server.

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Unable to load the web page from my web browser

Symptom:

When I type the URL in Internet Explorer or Google Chrome to connect to the web server, I get the following error messages:

For Internet Explorer

Internet Explorer cannot display the webpage

For Google Chrome

Oops! Google Chrome could not connect to localhost:18170

Solution:

Restart the web server.

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Internet Explorer Redirects to a Different Link

Symptom:

Suppose that I install erwin Mart Server on a fresh machine. If I enable the SSL option and I invoke erwin Mart Administrator, Internet Explorer redirects the page to res://ieframe.dll//.

Solution:

Internet Explorer versions 8 through 10 have a security enhancement that blocks the following types of sites:

- Sites that have self-signed certificates
- Sites that have self-signed certificates where the certificate does not match the URL

Follow any of these steps:

- Install the certificate in the Trusted Root Certification Authorities store.
- Add the site to trusted sites.
- Set the Internet Explorer Security level to Medium Low.

I have a very long Windows user name and I cannot log in to the Mart through erwin Data Modeler

Symptom:

I have added a very long Windows user name similar to "Magdalena.Chalamalasetti" using the Mart Administrator. When the user tries to log in to the Mart through erwin Data Modeler, the name is truncated to "US\Magdalena.Chalamas" and the user cannot log in.

Solution:

The name is truncated due to a limitation with Windows. The Windows API returns the legacy user name that is limited to 20 characters. If the length of a user name exceeds 20 characters, for example, "US\Magdalena.Chalamalasetti", the name is displayed as "US\Magdalena.Chalamas" in the Connect to Mart dialog.

You can resolve this in one of the following ways:

- Type the first 20 characters of the user name when you add the user as a Windows User, in the Mart Administrator. For example, instead of typing "US\Magdalena.Chalamalasetti", type "US\Magdalena.Chalamalas".
- Use a Windows Group instead of the user's domain name. Using your Windows domain controller software, add the user to a Windows Group, and then add the group as a User Group in the Mart Administrator. For more information about how to add a User Group, see erwin Data Modeler r9 Workgroup Edition: Support for Directory Services video.

Create a Customized Security Message

As the administrator, you can add a custom message on the Connect to Mart dialog. The message appears whenever one of the client applications (erwin Mart Server or erwin Mart Server Navigator Edition) connects to the mart. The message appears after your connection to the desired mart is authenticated and before the connection dialog closes.

Follow these steps:

1. After you install and configure the Mart, locate and open the *privacy.message* file.

If you are using the default web server Tomcat, the file is available in the following folder:

For a 32-bit version:

<installation folder>\erwin\Mart Server r9\Tomcat\Webapps\MartServer\WEB-INF
For a 64-bit version:

<installation folder>\erwin Mart Server r9\Tomcat64\Webapps\MartServer\WEB-INF

2. Type the message that you want to display and save the file.

The message can be up to 2000 characters long, anything beyond 2000 characters is not displayed. Insert line-breaks manually after every 80 characters, for the message to display properly. If there are no manual line-breaks, Windows automatically inserts line-breaks in the security message. These line-breaks are based on the specific version of Windows you use.

- 3. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), Stop MartServer Service to stop the web server.
- 4. From the Windows Start menu, click All Programs, erwin, erwin Mart Server 2019 R1 (32-bit or 64-bit), Start MartServer Service to start the web server again.

When a user connects to the Mart the next time, the security message is displayed.

To suppress the security message, open the privacy.message file and delete the contents. Do not delete the file.

Prepare to Use IIS with Mart

If you want to use Microsoft Internet Information Services (IIS) as the web server, configure it before deploying Mart Server.

This section contains the following topics

Configure IIS Web Server
Implement SSL for IIS

Configure IIS Web Server

The Mart Server is built using Java technology. Therefore, if you want to connect to Mart through IIS, configure IIS to use the JK ISAPI redirector plugin. Using this plugin, IIS sends servlet and JSP requests to Tomcat.

Note: This procedure describes how to configure IIS 6.0 for Microsoft Windows Server Enterprise 2008. For more information about configuring other versions of IIS for other operating systems, see the respective vendor documentation.

Follow these steps:

1. Help ensure that Tomcat is working properly. Open a browser and type the following in the Address bar:

```
http://<servername>:18170/MartAdmin
```

The default Tomcat home page appears. <servername> is the name of the computer where you have installed Tomcat. 18170 is the default port number where Tomcat is running. If you are using a different port number, use that port number here. In addition, help ensure that the port number you are using is included in the server.xml file. Typically, the server.xml file is available in the <Tomcat_Home>/conf folder.

2. Install IIS.

For more information about how to install IIS on Windows Server 2008, see Microsoft documentation.

Note: Unlike IIS 6, for IIS versions 7, 8, and 10, the following Application Development role services are not installed by default:

- ASP
- CGI
- ISAPI Extensions
- ISAPI Filters

To select these role services explicitly while configuring IIS:

- a. Under Server Roles, select Web Server.
- b. Click Add Features.
- c. Next, go to Web Server (IIS) > Role Services.
- d. Under Application Development, select ASP, CGI, ISAPI Extensions, and ISAPI Filters check boxes.
- 3. Create a folder, for example *Native_IIS* on the computer where you have installed IIS. Download the isapi_redirect.dll file for Windows from the Apache Tomcat website and copy to Native_IIS. If the name of the DLL file is not isapi_redirect.dll, rename it.
- 4. Create the workers.properties, isapi_redirect.properties, uniworkers.properties, uriworkermap.properties, and isapi_redirect.reg files in the Native_IIS folder.
 - **Note:** See the Appendix for sample workers.properties, uniworkers.properties, isapi_redirect.reg, isapi_redirect.properties, and uriworkermap.properties files.
- 5. Create a folder named Logs under Native_IIS. Create two empty files isapi.log and isapi_redirect.log under Logs.
- 6. Go to the Native_IIS folder, right-click the isapi_redirect.reg file, and click Merge.
- 7. Click Yes on the message.

The registry file is updated.

- 8. Follow these steps and create an IIS filter for the DLL placed in Step 5:
 - a. From the Windows Start menu, click Run, and then type inetmgr.
 The Internet Information Services (IIS) Manager window opens.
 - b. Click the computer name and expand Sites.

- c. Right-click Default WebSite and select Add Virtual Directory.
 - The Add Virtual Directory dialog appears.
- d. Enter jakarta for Alias. Enter the path for the isapi_redirect.dll file in the Physical Path field and click OK.
- e. Click Default Web Site.
- f. Double-click ISAPI filters and click Add under Action.
- g. Enter Tomcat for Filter name. Enter the path for the isapi_redirect.dll file in the Executables field.
- h. Click OK and the new ISAPI filter is added.
- i. Click Default Web Site and then double-click Handler Mappings.
- j. Click Edit Features and Permissions.
 - The Edit Features and Permissions dialog opens.
- k. Select Execute and then click OK.
- I. Click the computer name and then double-click ISAPI and CGI Restrictions.
- m. Click Add under Actions.
- n. Select the path for the isapi_redirect.dll file in the ISAPI or CGI Path field.
- o. Select Allow extension path to execute and then click OK.
- 9. Restart the IIS web server.
- 10. Stop the MartServer service and start it again.

Note: See the Appendix for sample workers.properties, uniworkers.properties, isapi_redirect.reg, isapi_redirect.properties, and uniworkermap.properties files.

Implement SSL for IIS

If you have deployed Mart Server on IIS, you can implement SSL on IIS. SSL lets you access the Mart through a secured connection.

Note: This procedure describes how to enable SSL for IIS 6.0. If you are using a different version of IIS, see the relevant document on the Microsoft website for more information about installing IIS.

Follow these steps:

- 1. Open Internet Information Services (IIS) Manager.
- 2. Double-click Server Certificates and then click Create Self-Signed Certificate.
- 3. Enter a name for the certificate and click OK.
- 4. Right-click Default Web Site and click Edit Bindings.
- 5. Click Add and select https in the Type drop-down menu.
- 6. Select the certificate name that you have added in the SSL Certificate drop-down menu and click OK.
- 7. Select Default Web Site and then double-click SSL Settings.
- 8. Select the Require SSL check box and click Apply.
- 9. Restart IIS and then restart Tomcat.

Note: If the validity of the certificate expires, create another certificate.

Mart Server Log Files

Mart Server can now generate log files (application.log) when there are errors. You can find the log file at the following locations:

- Mart Server as a Tomcat server: {user.home}/AppData/Local/erwin/Mart Server-/logs/application.log
- Mart Server as Windows service: C:\Windows\System32\config\systemprofile\AppData\Local\erwin\Mart Server\logs\application.log

You can configure how the log is generated. For more information about how to configure logging, see the erwin Mart Administrator Help.

Note: The latest version of Apache Tomcat does not support custom authorization-related error messages. Hence, a generic error message, "Unauthorized operation attempted. For more information, please review the log file.", is displayed. To understand the cause of the error, review the application.log file, which contains the description of the cause. Following is one such sample from the application.log file:

ERROR exception.MMException.setException: java.lang.Exception: User "johndoe" does not have required "View Users" permission on "User Management". Please contact the Mart Administrator for required permission.

Documentation Formats and Deliverables

The following documents are provided for Mart Server:

Deliverable Name	Format Provided
erwin Mart Administrator Online Help	HTML
Release Notes	HTML and PDF